

Robson Bight (Michael Bigg)

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ECOLOGICAL RESERVES COLLECTION
GOVERNMENT OF BRITISH COLUMBIA
VICTORIA, B.C.
V8Y 1X4

ROBSON BIGHT
ARCHAEOLOGICAL RESOURCE
INVENTORY

Report Submitted to
Archaeology and Outdoor Recreation Branch
Ministry of Municipal Affairs
Recreation and Culture

Under the Conditions of

PERMIT 1988-85

December 2, 1988

by

Morley Eldridge
Sandra Zacharias
Randy Bouchard
Dorothy Kennedy

MILLENNIA RESEARCH

Sidney, B.C.

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MANAGEMENT SUMMARY

In 1988, on behalf of the Archaeology and Outdoor Recreation Branch of the B.C. Ministry of Municipal Affairs, Recreation, and Culture, Millennia Research of Sidney, B.C. conducted a detailed archaeological inventory of Ecological Reserve #111. The reserve is located at Robson Bight on Johnstone Strait, northern Vancouver Island. As part of this study, Randy Bouchard and Dorothy Kennedy of the B.C. Indian Language Project subcontracted to research the Indian history of the Robson Bight area.

The entire shoreline of the ecological reserve was surveyed for archaeological sites. A sample of 14 transects provided data about culturally modified trees (CMTs) and inland areas of low archaeological potential.

Six archaeological sites were found, five prehistoric and one historic. The five prehistoric sites consist of four shell middens and a fish trap. Two middens are very small and probably represent short term camps. The two larger middens flank the Tsitika River delta. One of these probably represents a sporadically occupied fishing station. The other is substantial enough to be the remains of a winter village or long-term fishing camp. This site is almost certainly *ús7ekw*, the place of origin of two numayms (kin groups) of the Komkiutis *kwagu7lh* tribe. A myth states that Killer Whale people gave special powers to the numayms living at Robson Bight.

There are few archaeological sites in Robson Bight compared to the protected islands on the north side of Johnstone Strait, probably due to the lack of storm protection and unreliability of food resources.

The historic site recorded is the 1911 telegraph line that ran from Campbell River to Port Hardy. Several other recent historic features were noted but not included in the inventory.

In addition, 93 examples of culturally bark-stripped red cedar, yellow cedar, hemlock, and Douglas-fir trees, and five aboriginally logged red cedar trees were recorded. The majority of the bark-strips occurred on yellow cedar. Yellow cedar appears to have been the prime prehistoric forest resource in the study area.

There were few aboriginal logging features, red cedar being available in quantity at more easily accessible places on the north side of Johnstone Strait.

The ecological reserve status provides excellent protection for the six archaeological sites present within the reserve. However, the sign marking the eastern boundary of the ecological reserve should be moved to the actual boundary at Fine Creek to protect shell midden EcSp-3. In addition, beach erosion at shell midden EcSp-4 should be monitored.

The proposed land reserve extension at the eastern end of the study area ought to be located far enough south to protect the large stand of bark-stripped yellow cedar 600 m inland. Serious consideration should also be given to enlarging the proposed boundaries to include other yellow cedar stands. If yellow cedar stands behind the reserve are commercially harvested in future, provision should be made to collect stem round samples of culturally modified trees, in order to date aboriginal activity in this area.

ACKNOWLEDGEMENTS

The Archaeology and Outdoor Recreation Branch of the B.C. Ministry of Municipal Affairs, Recreation, and Culture initiated and funded this project. The aid of Brian Apland of the Branch is particularly appreciated. We would also like to thank staff of the B.C. Ecological Reserves Program. Dr. Louise Goulet, Dr. John Pinder-Moss, and Dr. Hans Roemer all provided assistance and the use of their facilities.

At Telegraph Cove, Jim and Anne Borrowman and Bill and Donna Mackay of Stubbs Island Charters provided local knowledge and radio safety calls. Tim and Ann-Marie McManamy were both helpful in providing equipment, accommodation, and fuel at odd hours .

Bob Bruff, Greg Pearse and Brad Broadway of MacMillan Bloedel Ltd., Eve River Division, provided maps of the reserve, as did Dan Bahunk, Chief Draftsman for Western Forest Products Ltd.

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1.0. INTRODUCTION.

During the fall of 1988, on behalf of the Archaeology and Outdoor Recreation Branch of the B.C. Government, Millennia Research of Sidney conducted a detailed inventory of the archaeological resources of Ecological Reserve #111. The reserve is located at Robson Bight on Johnstone Strait, northern Vancouver Island. This report presents the results of that study.

1.1. Scope and Objectives.

The project objective was to inventory the archaeological resources of the previously unsurveyed ecological reserve. The resulting data are intended to expand the range of scientific information for the reserve to include past human use of the area. These data may also be useful in making decisions regarding the management of the reserve.

The scope of this project was:

- (1) to conduct a systematic survey of the shoreline and a sampling survey of the remainder of the reserve for archaeological sites;
- (2) to conduct a sampling survey of the entire study area for culturally-modified trees (CMTs); and,
- (3) through the B.C. Indian Languages Project, to collect ethnographic and archival information about Native use of the area.

Data were collected on the spatial distribution and diversity of CMT features and on the location, extent, and content of archaeological sites. The specific objectives of the ethnographic portion of the study are discussed within Bouchard and Kennedy report, included as Appendix 3 of this report.

1.2. Study Schedule.

Fieldwork was undertaken between September 29 and October 17, 1988. Project basecamp was a house in Telegraph Cove and the crew commuted to the study area in a Zodiac inflatable. Analysis and report writing took place during October and November, 1988.

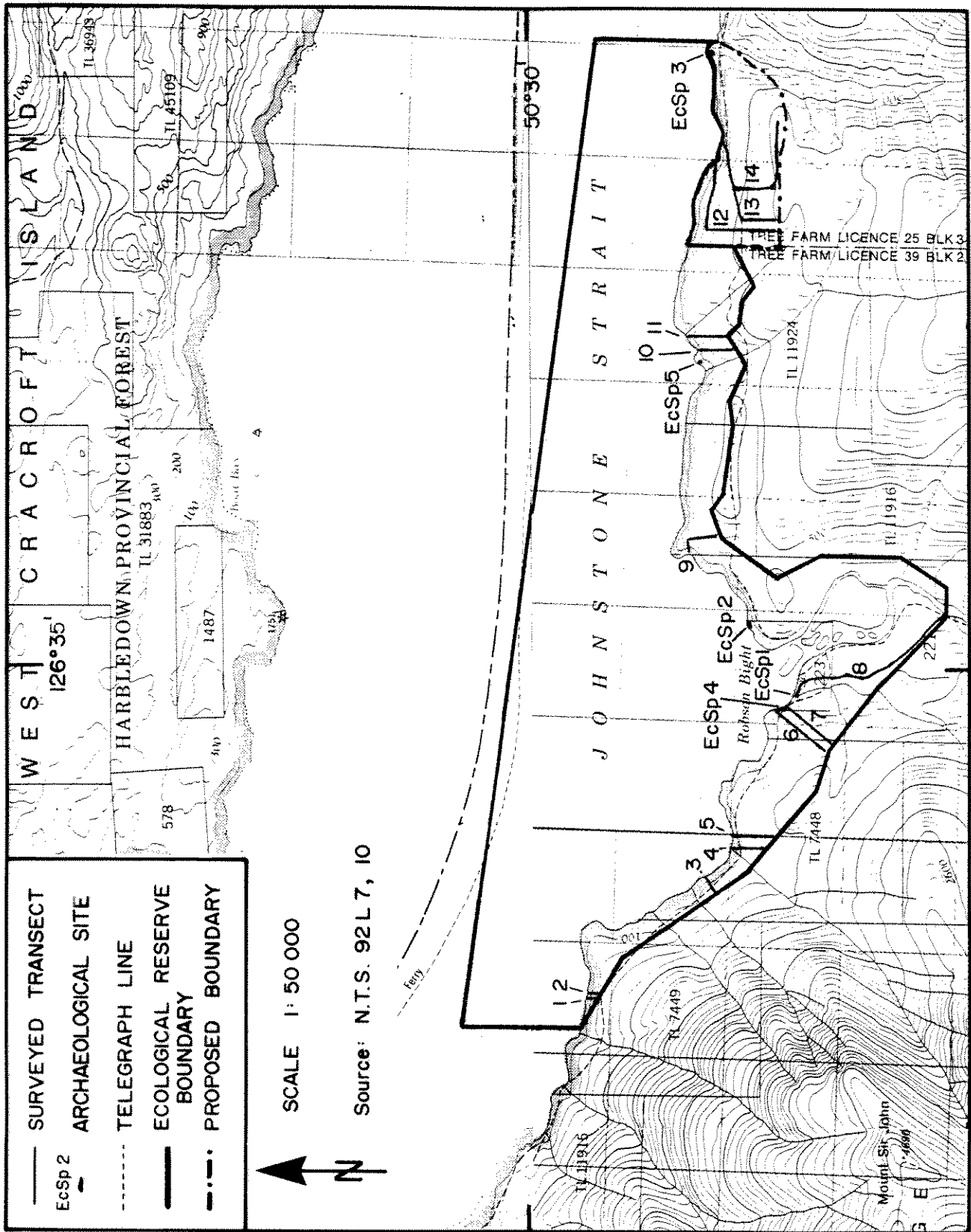
2.0. PROJECT AREA: BACKGROUND.

The environment of the Robson Bight Ecological Reserve and lower Tsitika River has been the subject of several comprehensive studies (e.g. North Island Study Group 1975; Tsitika Planning Committee 1978; Robson Bight Protection Committee 1981; Blood et al. 1988; Parks Canada 1988). The following sections summarize this information as it pertains to the heritage resource inventory.

2.1. Landforms and Environment.

Ecological Reserve #111 extends 10.7 km along the southern shore of Johnstone Strait, bounded by Fine Creek (also known as Schmidt or Peel Creek) on the east and Sir John Creek on the west (Figure 1). In the centre of the reserve, the Tsitika River estuary opens into Robson Bight, an exposed bay used year-round as the core habitat of a community of over 170 killer whales (Blood et al. 1988:19). Behavioural changes exhibited by killer whales in Robson Bight include rubbing on certain beaches and an increase in time spent resting and playing.

Some 1248 ha. of marine area and 412 ha of land comprise the ecological reserve. The marine lands were the first to be reserved, the main purpose being protection of killer whale habitat. The land portion of the reserve is a 200 to 500 m. wide ribbon of coastline, extending 1.5 km inland up the Tsitika River valley. These lands were formerly part of TFL 39 and private lands owned by MacMillan Bloedel. Negotiations are presently underway to extend the reserve land eastwards into TFL 25 held by Western Forest Products Ltd. Lands within the present reserve and those being considered for reserve status were included in the present study area.



ECOLOGICAL RESERVE No. III
 ROBSON BIGHT ARCHAEOLOGICAL INVENTORY

Figure 1. Study area.

Most of the reserve consists of the north side of ridges which run parallel to the water. These ridges are separated from the main mountain slopes by low non-fluvial valleys. Maximum elevation of the reserve is 350 m at the east end. The land drops steeply to the shore, with few terraces present (Plate 1). The shoreline of the study area is generally steep and rocky, with a few small pebble beaches.

The Tsitika River valley runs north-south for 42 km, rising to 1800 m elevation at its headwaters. The valley follows an old fault line, exposing basaltic bedrock and pillow lavas on the east side of the Bight, and sedimentary/granitic bedrock on the west side. A thin layer of glacial till and humo-ferric podzols overlie the bedrock on the upland slopes. Alluvial cobble and gravel deposits form the river delta which contains several low lying islands and long gravel beaches (Plates 2, 3). High precipitation in the Tsitika River valley causes great seasonal variation in river flow, up to 1300-fold in the course of a year (Blood et al. 1988:11). Traces of old flood channels can be seen in the forested islands of the delta. The delta drops off abruptly into Johnstone Strait to a depth of over 400 m.

The local climate is Marine West Coast: humid with high precipitation. Summer fog is common, as are winter storms with southeast winds gusting up to 70 knots (Associated Engineering Services 1980). Within Robson Bight, waves are generally less than 1 m high in summer. In winter, however, changing wind patterns increase the average wave height to 1.2 m, reaching 4.5 m during winter storms. Few beaches in Robson Bight and surrounding area afford protection from these strong southeast winds.

The marine environment contains a variety of fishes and sea mammals, in addition to killer whales. Johnstone Strait is a major migratory route for salmon. All five species of salmon, plus cutthroat and steelhead trout, dolly varden char, and eulachon spawn in the Tsitika River. Intertidal resources in the Tsitika delta include bay mussel, barnacle, chiton, sea urchin, abalone, whelk, and some clam. The nearest productive clam beach is at the mouth of Fine Creek at the east end of the Reserve (see Appendix 3). The Tsitika estuary is also rich in intertidal plant resources including sedges, sea grasses, and kelp.

Ecological Reserve #111 lies within the wetter subzone of the Coastal Western Hemlock Biogeoclimatic Zone (CWHb) (Ceska 1981). Major forest species are western hemlock and balsam fir, with old growth western red cedar dominating many areas outside the Bight. Yellow cedar stands are found occasionally at higher elevations. Additional tree species within the Bight include Douglas-fir (at its most northerly limit on the coast) and shore pine. Sitka spruce predominates on the islands at the mouth of the delta.

Forest stands in the areas exposed to southeast winds are generally scrubby, but most of the reserve is covered by average quality old-growth cedar and hemlock. On the east side of the Bight, forest fires within the last century have created a natural second growth hemlock-Douglas-fir forest. Cruising data from the Tsitika estuary show western hemlock dominating (37.8%), followed by balsam fir (24.0%), Sitka spruce (23.5%), alder (7.0%), Douglas-fir (4.9%), and red cedar (2.6%) (Holmsen Forestry 1985:16). MacMillan Bloedel Ltd. and Western Forest Products Ltd. have produced forest cover maps at 1:5,000 scale for most of the reserve.

Major understory species include salal, red huckleberry, deer and sword fern, salmonberry, and a variety of mosses. Skunk cabbage swamps also occur in upland areas.

Eighteen species of land mammal are known to frequent the Robson Bight area. The most common are blacktailed deer, Roosevelt elk, wolf, cougar, black bear, squirrel, mink, and river otter. The Tsitika estuary is an important winter range for deer and elk.

Johnstone Strait is on a major migratory route for shorebirds and waterfowl. Although no major breeding colonies are present in Robson Bight, a wide variety of birds utilize the Tsitika River estuary, including waterfowl, shorebirds, raptors, passerines, and cavity nestors. Bald eagles nest on the islands of the Tsitika delta.

2.2. Land Use History.

2.2.1. Historic Land Use.

Historic non-native use of the reserve lands has been mainly confined to hand-logging and temporary camping. Within the reserve, selective hand-logging of the old-growth forest, mainly for Douglas-fir, took place in the late 19th and early 20th centuries. Hand logged stumps can be found in a large proportion of the ecological reserve. Additional logging occurred during land clearing for the 1911 telegraph line, which cuts a 10-20 m swath through the reserve, up to 400 m inland. The telegraph line originally ran from Campbell River north to Port Hardy (Healey 1959:54).

In 1907, an application was made to the government to purchase a lot, (DL 223) comprising the Tsitika estuary. This lot had been surveyed in 1906 and granted to Claude Elliott in 1909 (British Columbia Lands Registers). Mr. Elliott apparently wished to homestead here, but no permanent structures were ever built (Holmsen Forestry 1985:9). A corporate ancestor of MacMillan Bloedel bought the land in the 1930s. Slightly upriver from DL 223, DL 221 was surveyed in 1905 and the Canadian Industrial Company Limited was granted a 21 year pulp lease. No commercial developments ever took place on these lands. These two alienations from Crown land prevented an Indian reserve from being established in Robson Bight (see Appendix 3).

Since that time, the Bight area has been used as a bad weather refuge for commercial fishing boats and tugs, and as an occasional campsite for recreational hikers and kayakers. In the late 1970s, MacMillan Bloedel conducted a series of environmental and weather studies (Forestry Resource Consultants 1979; Associated Engineering Services 1980) as part of their plans to clear-cut log the Tsitika River valley and build a floating dock in Robson Bight. These were countered by the environmental studies of the Robson Bight Preservation Committee (1981). In the end, MacMillan Bloedel revised its plan and relinquished logging rights in the lower extreme of the Tsitika watershed, and B.C. Ecological Reserve #111 was established in the area surrounding the Tsitika estuary (the marine portion in 1982, the land portion in 1988).

2.2.2. Ethnographic Native Use of Robson Bight.

The Native use of Robson Bight is discussed at length by Bouchard and Kennedy in Appendix 3. This section briefly summarizes their work. References are not repeated in this section.

Robson Bight is within the territory formerly used and occupied by the kwakwala speaking tribes. What are now referred to as "tribes" were communities, socially and politically distinct units associated with certain localities. Each tribe was comprised of four to six smaller social units called "numayms". The primary user group of Robson Bight appears to have changed over the last few centuries. There is evidence for its ownership or use by four tribes: the Matilpi; the Tlawitsis; the Nimpkish; and the several sub-tribes collectively known as the **kwágu7lh** or Fort Rupert people.

The kwakwala name for Robson Bight is **ús7ekw**, meaning "grey-haired, as in trees following a forest fire". This name is consistent with the edaphic fire vegetation found to the east of the Tsitika River delta. **ús7ekw** was identified as the place of origin for two numayms of the Komkiutis sub-tribe of the Fort Rupert **kwágu7lh**. In addition, a myth records that the chief of one of the **ús7ekw** numayms received supernatural power from a house of killer whales at Naka Creek, 6 km from the east edge of Robson Bight ecological reserve. According to the myth, the people of **ús7ekw** subsequently dismantled their houses and moved to Naka Creek.

In 1914 an application was made by the Tlawitsis for a reserve in Robson Bight at the mouth of the Tsitika River. **ús7ekw** was known as a long-occupied salmon fishing station reknowned for dog salmon. No houses remained in 1914. The reserve application was for a village, a fishing station, and a trapping base. The reserve application was rejected because the land was alienated and unavailable.

The main utilization of Robson Bight since 1914 has been for trapping. A trapline here is registered in the name of Medric Wadhams. The trapline runs along the entire foreshore of Robson Bight and extends inland ca. 6 km to Catherine Creek. In the 1930s, a small trappers cabin was

constructed by the Wadhams family on the most westerly island of the Tsitika River delta.

2.2.3. Ethnographic Utilization of Trees.

Although there is no information regarding Native tree use specifically within the reserve, considerable detail exists for the Kwakwala speaking tribes in general. A brief summary of these data follows. The data presented are restricted to those Native uses which leave archaeologically visible traces. Many harvesting activities, such as digging spruce or cedar roots, collecting cedar withes, or collecting twigs and leaves for medicinal use, do not leave any long-term evidence.

Like all Northwest Coast societies, the Kwakwala speakers were technologically dependent on forest products, especially those from western red cedar. Houses, canoes, clothing, baby diapers, storage containers, marine cordage, and ceremonial objects were all made primarily from cedar wood or bark (e.g., Turner 1979; Stewart 1984).

Both western red and yellow cedar trees were partially stripped of their bark in the spring and early summer to obtain the inner bark, which was stored and processed into fiber or weaving strips. In most areas, women were the primary collectors of bark. In a typical bark collection, a Kwakwala speaking woman:

...takes a hand-adze and cuts the bottom of a young cedar tree. She leaves a strip four fingers wide which she does not cut when she cuts around the tree, and she peels off a strip two fingers wide. This is called "making a road" for after that she peels off a wide strip which will go up high. ...[the narrow strip of bark is] what the people of olden times refer to as being left on the young cedar-tree so that it should not be without clothes and to keep it alive [Boas 1921:I:131-132].

Kwakwala speaking men also collected cedar bark, employing a special technique to do so (Boas 1921:I:120-122). They twisted a cedar withe around the trunk at a height of about 1 m, then pried up all the bark below the withe, which prevented any unwanted narrow strips from going up the trunk (the women wanted

wide strips). The frayed ends were then gathered, the withe cast off, and a large section of bark peeled off. Adjacent strips were pulled off until everything had been removed from the good side of the tree (op. cit.:122).

Canoes, house posts and planks, and boards for boxes were obtained by logging cedar. Much of the logging involved stripping planks or sections from living trees. Chisels, driven by stone handmauls, were used to make multiple notches. The wood between the notches was then wedged out. Notches close together formed windows. These windows allowed long-handled chisels to reach deep into the tree when felling or, if planks were being split from the standing tree, for wedges to be driven in vertically. Windows spaced far apart were used to remove large sections of the tree for planks.

The following quote describes the precontact use of fire to make notches:

When locating a tree that was to be felled, the Indian used a long-handled stone chisel, by means of which he would drive a deep hole into the foot of the tree, in order to make sure that the heart of the tree was sound. If the tree was found to be suitable, a notch was cut in the bark and the outer layers of the wood, and a small fire was started, which was kept smoldering, and which was carefully guarded so as to prevent its spreading upward. ...after much labour, the trunk was cut through by the fire and the tree would fall forthwith...[Boas 1910:337].

Boas (1909:328) also describes the use of fire for making the lower notch of a plank tree, noting that "the charcoal was scraped out of the hole with a stick of hemlock wood", while the upper notch was cut with stone chisels. Logs were plank-stripped with the aid of fire and hot rocks (Ibid.).

Ethnographic evidence suggests that trees were plank-stripped while standing rather than after falling, as a response to the difficulty of large-scale woodworking without metal tools. Boas (1909:328) stated that "in olden times cedars were not felled" but driftwood logs were used instead, and these were cut by burning and the application of hot rocks (see also Section 7.6.). When driftwood did not provide sufficient wood, planks were removed from standing trees:

[After burning a hole at the base of the tree to form a lower notch]...The man would then climb the tree to a height of 3-4 fathoms [i.e., 6-8 m]. There he would work, standing on the branches of a small tree pulled over so it leaned against the trunk. Two places about 1 cubit apart were then cut out of the trunk with stone axes, and the intervening wood wedged out. In this manner a deep cut was made. It is said that the top cut also was burned out, but this...would make the wood brittle [Boas 1909:328].

Boas then proceeds to describe the elaborate methods of wedging out planks. Elsewhere, Boas (1966:341) states that "old Indians claim that, until about 1860, the house posts were heavy planks with relief carving or painting-like those from Fraser River, and that only masks were of the same type as those now in use".

Yellow cedar bark was harvested using the same techniques as those used for red cedar trees (Boas 1921:I:129). The bark was particularly soft and was highly prized for clothing, baby diapers and furnishings (e.g., Stewart 1984). It was made into clothing for high-ranking people and was a trade item (e.g., Turner 1979:70).

Hemlock bark was extensively used by many Northwest Coast people for food (e.g., People of 'Ksan 1980), and for medicine or dye (e.g., Turner et al. 1983:74-75). Gum was also collected from scarred hemlock trees (Boas 1909:405). Bark was cut from the tree, rather than pulled, a stick being used to pry off bark beyond the stripper's reach (People of 'Ksan 1980:83). Rectangular scars resulted from most Native hemlock stripping (A. Eldridge 1982).

Sitka spruce wood was occasionally used by the Kwakwaka speakers to make armour and digging sticks, but spruce gum was an important glue, and roots provided weaving material (Turner 1979:100-103). The gum was sometimes collected after scarring the tree, thus leaving material evidence of the activity.

Yew (*Taxus brevifolia*) wood was also used to a great extent by all Northwest Coast Indian groups, including the Kwakwaka speaking tribes. Yew

was prized for its hardness, resilience, and workability. Because yew trees tend to be small, the stumps left from harvesting are difficult to find.

Many other tree species were utilized by Kwakwaka speaking tribes (see, for example, Turner 1979), but their incidental use or archaeological invisibility makes them of little importance to this study.

2.3. Previous Archaeological Research.

There have been no previous systematic heritage surveys within the Robson Bight ecological reserve. The most comprehensive inventory in the region was made by Mitchell (1968), who found 450 sites during his survey of the islands between northern Vancouver Island and Knight Inlet, north of Johnstone Strait. However, Johnstone Strait itself, between Adam River and Beaver Cove, was not part of Mitchell's survey area.

More recently, Ham (1980, 1982) and Ham and Howe (1983, 1984) surveyed and conducted test excavation in the area around Alert Bay, including the Nimpkish Valley and Hanson Island. Hanson Island is located west of the study area on the opposite side of Johnstone Strait. Eldridge examined culturally modified trees on Hanson Island (Crown Forest Industries 1987) and in the Newcastle Block (Eldridge and Eldridge 1988). The Newcastle Block is on the Vancouver Island side of Johnstone Strait, west of Kelsey Bay.

3.0. METHODOLOGY.

This section describes the sampling, surveying, and recording methods used in the field. Details of analysis are outlined in Section 5.0.

3.1. Archaeological Survey.

A crew of two conducted the field survey. The entire foreshore of the reserve was examined from a boat at slow speed, closely following the shoreline. All areas of shoreline received close attention, regardless of the terrain. Rock faces were examined for pictographs and rock crevices and overhangs for rockshelters. Landings were made at all locations where rock outcrops or brush could hide rockshelters. All beaches were examined for petroglyph boulders, canoe runs, fish traps, and other intertidal features or artifacts.

Areas where gentle terrain indicated that habitation would have been possible were traversed on foot. In these areas, the crew searched for cultural depressions and other surface features, and conducted intensive probing with an Oakfield soil sampler and, where necessary, shovel testing. Subsurface exposures in cutbanks or tree throws were also closely examined for cultural materials.

Stream and river channels were surveyed for aboriginal fish traps. A sample of areas with a low potential to contain archaeological sites was examined during the course of the CMT survey.

3.2. Culturally Modified Tree Survey.

Because much of the study area has difficult access, a judgemental sampling approach was used in the CMT survey. Steep cliffs found along much of the shoreline prevented the boat from being safely anchored for long periods and, furthermore, the immediate foreshore at these locations was virtually impassable. In addition, CMTs were unlikely to be found in the large proportion of the study area where cedar trees were absent. These

factors suggested that a simple systematic transect sample (e.g., Arcas Associates 1984; Eldridge and Eldridge 1988) was impractical.

It was desirable to maintain the advantages of systematic transect sampling (i.e., crosscutting ecological zones and selecting from all parts of the study area) and the judgemental sample was selected with these factors in mind. The resulting sampling design of 14 transects is presented in Figure 1. The lines connecting transects were individually numbered (e.g., 6-7) and included in the analysis.

The transects are relatively evenly spaced throughout the study area. In areas of old growth cedar, the transects usually run directly up or downhill, although several traverses along contours were necessary in order to reach cedar stands not easily accessible from the water's edge (e.g., Transects 12 through 14). Areas where cedar was too rare to be included in the stand type were traversed by single or pairs of transects (e.g., Transects 6,7, and 9). Transect 6 proved to cross a large stand of cedar, mis-typed on forest cover maps as hemlock-balsam. The large level area of deciduous vegetation, spruce, and hemlock comprising the delta of the Tsitika River was very different from other parts of the study area, which sloped away from the coastline, and it was determined that it would be adequately represented by a long judgemental traverse (Transect 8).

The resulting transects approximate a random sample of the area. There were some biases, however, both from emphasizing stand types likely to contain CMTs and from selecting areas of relatively easy access. Thus, **the sample probably overestimates the density of CMTs.** This must be kept in mind when assessing spatial distribution and density values presented below. A method of assessing one of these biases is discussed in Section 5.2.1.

4.0. INVENTORY RESULTS.

Six archaeological sites were found at Robson Bight, five prehistoric and one historic. In addition, 93 examples of culturally bark-stripped red cedar, yellow cedar, hemlock, and Douglas-fir trees, and five aboriginally-logged red cedar trees were recorded. These sites and features are described briefly in the following sections. For detailed descriptions and maps of each site, see the B.C. Archaeological Site Inventory Forms appended to this report. The locations of all archaeological sites and culturally modified trees are plotted on 1:5,000 scale maps in the end pocket of this report.

4.1. Prehistoric Sites.

4.1.1. Shell Middens.

Four buried shell midden deposits were found. All are located on low forested terraces behind sheltered pebble or gravel beaches. No surface features are directly associated with any of the shell middens. An analysis of their function based on regional comparisons is presented in Section 5.1.

Two of the deposits (EcSp-3 and EcSp-5) are located behind protected beaches at the east end of the ecological reserve, outside the Bight proper. Both have surface areas of less than 100 m. sq., with no indications of erosion. They appear to be the remains of small campsites.

The 20 cm. deep deposit at EcSp-3 consists of mostly whole butter clam and fire-altered cobbles. Because the site is located behind a clam beach at the mouth of Fine (Schmidt) Creek, it may represent a clam baking facility. A large stand of bark-stripped yellow cedar is found ca. 600 m. inland, at an elevation of 350 m, and the camp could also have been a base for yellow cedar bark gathering expeditions.

The 5 cm. deep midden deposit at EcSp-5 contains fragmented butter and little neck clam, barnacle, and bay mussel, all available in limited

quantities at the partially sheltered beach in front of the site (Plate 4). This site was probably a short term camp.

The other two shell midden sites found are larger: one is 1,100 sq. m. and the other 1400 sq. m. These sites are located behind long beaches on either side of the mouth of the Tsitika River inside Robson Bight (Plate 2).

EcSp-2, on the east side of the Bight, consists of discontinuous, shallow pockets of midden 15 cm thick containing finely crushed charcoal, clam and barnacle fragments. Shell is eroding onto the beach at the vegetation edge. This site probably represents a fishing campsite with multiple occupations.

EcSp-4, on the west side of the Bight (Plate 3), is the only midden deposit with clear vertical and horizontal stratigraphy. Stratified layers of barnacle, bay mussel, and mixed clam were encountered in the ca. 30 cm. deep deposit. Across the site, the cultural deposit ranges from dense shell (finely crushed to almost whole) to very sparse shell in a matrix of greasy black loam, possibly indicating activity areas outside and within dwellings.

The size of the site (70 X 20 m) is large enough to have contained a row of houses, which are generally about 10 m square.

This site is the only known candidate for **ús7ekw**, the place of origin of the Komkiutis **kwágu71h** (see Appendix 3). Large trees growing on the site suggest that it has been abandoned for several hundred years. Bark-stripped hemlock trees found on and near midden deposit almost certainly post-date occupation of the site.

4.1.2. Stone Fish Trap.

EcSp-1 is a small single fish trap made of river cobbles placed in a 'V'(Plate 5). Each arm of the V is 10 m long, and the angle formed approaches 45 degree. It is located on a small creek that enters the Tsitika estuary on the west side of the delta. It is not connected with the Tsitika River itself.

4.2. Historic Sites.

One historic feature, a telegraph line, was added to the B.C. Archaeological Site Inventory. Several others were noted, although not considered significant enough to be included in the Inventory.

4.2.1. Telegraph Lines.

Two telegraph lines were found and recorded as one site (EcSp-6). Both generally follow the coastline. The main telegraph line runs the length of the reserve, up to 400 m. inland along an overgrown 10 m. wide logged clearing. It has six wires and clear, colourless Dominion glass insulators (Plate 6). Fallen poles can be found in most areas and the line is virtually intact, with standing poles and suspended wires in many inland locations. The community of Telegraph Cove was named for this line, built in 1911.

Remnants of a smaller, single-wire telegraph line with ceramic insulators tacked to trees are found along the shoreline of the reserve. These may represent a temporary telegraph line in place during the construction of the main line.

4.2.2. Other Historic Features.

Several other historic features in the Robson Bight area were noted during the survey, but were not assigned formal site inventory numbers. On the west side of the Tsitika delta, an overgrown trail follows the river valley north-south (see endpocket map). This trail is several hundred metres west of a trail noted on the 1:50,000 map of the area. The trail is marked at intervals by sawn fallen logs, now rotted.

Evidence of hand-logging, including stumps with spring-board notches and sawn log-ends, is found in most areas of the reserve which have relatively

easy coastal access. Most stumps are Douglas-fir, although western hemlock and red cedar were also noted.

On the large island at the west side of the Tsitika delta are the pole foundation remains of a small cabin, probably Jimmy Wadhams trap cabin built in the late 1930s (see Appendix 3) (Plate 7). This feature measures only 244 X 183 cm (exactly 6 X 8 feet) and has a rockpile 1 m from the southern end. A pile of branches to the east is perhaps the remains of a conifer mattress or the detritus from smoking traps to remove human scent (Appendix 3). This structure was probably similar to a wall tent. The Wadhams family actively operated a trapline in the Tsitika River valley from ca 1915-1960. Cecil Wadhams Sr. corroborated the location and configuration of this feature, saying that their trap cabin was only just big enough to lie down in. A bark-stripped Sitka spruce is located a few metres east of the cabin remains. Mr. Wadhams could not remember this tree, but it is possible that his father scarred the tree to collect gum, perhaps as a scent mask for trapping. In addition, the overgrown trail on the west side of the delta may have been build by one of the Wadhams family.

4.3. Bark-stripped trees.

In 14 transects, 72 aboriginally bark-stripped trees were found. Four species of trees are represented: western red cedar (Thuja plicata) (Plate 8), yellow cedar (Chamaecyparis nootkatensis) (Plate 9), western hemlock (Tsuga heterophylla) (Plate 10), and Douglas-fir (Pseudotsuga menziesii) (Plate 11). An additional 21 bark-stripped trees were located outside the transect lines during archaeological site survey, including one Sitka spruce (Picea sitchensis) (Plate 7).

4.3.1. Western red cedar.

Twenty-one bark-stripped red cedar trees with 32 visible stripping scars were recorded within the transect lines, at elevations ranging from sea level to 350 m. Four additional trees were recorded outside the transect lines. All were tapered strips, similar to those from other areas. Table 1

lists selected statistics for bark stripped trees in a number of regions. At Robson Bight, the average number of strips per tree (1.40) is higher than for Hanson Island, lower than for Mercantile Creek and the Newcastle Block, and close to the average for Meares Island and the Stein River. This suggests a moderate level of harvesting intensity, which is contrary to the low density of Robson Bight features (see Section 5.2.). It may be that most of the multiple strips were made simultaneously rather than serially (as is the case in other areas).

A single bark strip scar had a well defined base and adze marks in the wood at a height of 110 cm. All other bark strips continued to the ground, with no tool marks visible. This is similar to the bark-strips found in the Newcastle area (Eldridge and Eldridge 1988), and is probably a result of poor preservation due to old age. More trees probably once had tool marks on scar faces which have now decayed.

The mean DBH of recorded bark-stripped red cedar trees was 80 cm. This is considerably larger than the usual average of about 65 cm (Wilson and Eldridge 1988:11; Table 1). The large average tree size is probably correlated with the age of the features. The Robson Bight features tended to have more deeply recessed scars than those in other areas, even compared to the Newcastle Block, where bark-stripping ceased in the 1840s. Given the proximity and similar growing conditions of the two areas, this leads to the conclusion that the Robson Bight features tend to be even older. The thickness of scar lobe has been shown to be correlated with age, although the correlation is not strong enough to reliably predict the date of individual scars (Arcas Associates 1984:98).

No examples of tree girdling were found at Robson Bight. Girdled trees are common in interior locations (Mack and Hollenbeck 1985; Wilson and Eldridge 1988) and a number of cedar trees on Hanson Island had been girdled (and thereby killed) (Crown Forest Products 1987). The absence of girdling in Robson Bight supports the traditional Kwakwaka'wakw speakers' values of cedar conservation (e.g., Boas 1921:131). The deterioration of stripped poles is more rapid than that of living trees, however, and if the Robson Bight features are indeed ancient, then any girdled trees have now vanished.

Table 1. Selected statistics for bark-stripped trees*.

	DBH**	Length	Width	Depth	HAG	# Girdled	# Trees	# Scars	Scars/Tree
RECTANGULAR BARK STRIP SCARS									
ROBSON BIGHT									
Yellow Cedar	86	140	-	-	82	0	1	1	1.00
Hemlock	65	99	-	-	62	0	16	21	1.31
Douglas Fir	157	169	-	-	120	0	3	3	1.00
Sitka Spruce	120	135	-	-	0	0	1	1	1.00
HANSON ISLAND	80	94	25	-	75	-	1	1	1.00
STEIN RIVER	64	124	88	12	139	22	89	136	1.52
GIFFORD PINCHOT NATIONAL FOREST, WASH.									
	66	136	-	-	75	124	2189	2515	1.14
TAPERED BARK STRIP SCARS									
ROBSON BIGHT									
Red Cedar	80	-	-	-	110	0	25	35	1.40
Yellow cedar	46	-	-	-	55	0	49	58	1.18
HANSON ISLAND	-	6.2	25	10	48	5	76	89	1.17
NEWCASTLE BLK	68	4.7	-	-	37	0	80	121	1.53
MEARES ISLAND	74	7.5	23	17	72	0	207	318	1.54
MERCANTILE	70	-	-	-	-	0	269	248	1.37
STEIN RIVER	59	4.3	32	15	66	11	154	216	1.40
GIFFORD PINCHOT NATIONAL FOREST, WASH.									
	66	5.0	-	-	75	0	175	175	1.00

* Western Red Cedar unless otherwise indicated.

** DBH (diameter at breast height), HAG (height above ground of scar base) and other values are presented in centimetres, with the exception of tapered scar lengths, which are in metres. The numbers represent average (mean) values except where columns are headed by '#', in which case a count is given.

References: Gifford Pinchot National Forest - Mack and Hollenbeck 1985
 Hanson Island - Crown Forest Products 1987
 Meares Island - Arcas Associates 1984
 Mercantile - Eldridge 1988
 Newcastle Block - Eldridge and Eldridge 1988
 Stein River - Wilson and Eldridge 1988

4.3.2. Yellow Cedar.

Forty-seven bark-stripped yellow cedar trees with 56 scars were recorded within the transects surveyed, all above 200 m. elevation. Two others were recorded off-line. Bark-stripped yellow cedar trees are the most numerous archaeological features in the ecological reserve. The largest tree cluster contained more than 24 stripped trees within the 20 m wide transect and many more were observed "off line".

Mean DBH of the bark-stripped yellow cedar trees is 46 cm, considerably smaller than that of red cedar trees. This smaller size could be related to more recent use of the resource or, more likely, it reflects the slower growth and smaller average size of the species. The mean is also reduced by stripped trees which died while they were still small (some years after stripping).

All observed strips but one were tapered and appear identical to those found on red cedar trees. One example of a rectangular scar was found on Transect 10. The top of the scar showed 2.5 cm wide adze marks and the scar was 140 cm long. Rectangular bark strip scars are common in some areas, such as the Queen Charlotte Islands (Acheson and Zacharias 1985) and the Stein River Valley (Wilson and Eldridge 1988). In Interior locations, they have often been attributed to the manufacture of expedient baskets, made while berry gathering (e.g., Mack and Hollenbeck 1985), whereas on the Coast, rectangular strips are more often attributed to "planks" used for shelters (Boas 1909:355; Turner 1979). The Robson Bight example is too short to have been a useful plank, but is consistent with the size of berry baskets.

4.3.3. Hemlock.

Five rectangular bark-stripped hemlock trees were recorded within the transect lines. An additional eleven trees were found outside the transects, during site survey and recording. A total of 21 scars were present. This is the only known instance of multiple strips on hemlock trees,

stripped hemlock being rare in the archaeological record. All stripped hemlock trees were located on the west side of the Tsitika delta close to the coast. Several of these trees are now snags, long dead, and all have large scar lobes. This suggests that the hemlock trees were stripped considerably more than a century ago.

DBH ranged up to 125 cm., with a mean DBH of 65 cm. These trees are on average substantially smaller than the stripped hemlock found at Newcastle, where DBH was over 100 cm. for all five trees found (Eldridge and Eldridge 1988:13).

Many of the rectangular scars were oval-shaped due to scar lobe growth. Scar lengths ranged from 45 to 220 cm., with a mean length of 99 cm. Scar base heights ranged from 20 to 125 cm., with a mean height of 62 cm.

4.3.4. Douglas-fir.

Three Douglas-fir trees with four rectangular bark strip scars were recorded outside the transect lines during shoreline survey of the west side of the Tsitika delta. In all cases, the original bark has been removed by axe-cuts and new, smooth bark has regenerated over the scar face. The features, which occur on large trees, are remarkable due to their large size and the heights of the top cuts. The trees had DBHs of 115, 170, and 185 cm; lengths of 90, 109, 150, and 250 cm started at heights of 40, 160, 65, and 135 cm respectively, resulted in top cuts as much as 385 cm above ground. These unique features may be related to early historic use of the delta, the bark being used for fuel or shelter materials.

4.4. Aboriginal logging.

Only three aboriginal logging features were found on the transect lines. Two additional features were found outside transect lines. All were cedar stumps. No associated log remnants or cushioning saplings were found. Because log features lying on the ground tend to decompose more quickly than stumps, these features may be of considerable antiquity.

Two of the stumps had barberchair-shaped tops; that is, they were felled with traditional Native techniques involving cutting the tree with a single undercut, making multiple notches and wedging out the intervening chunks (see Eldridge and Eldridge 1988:14, 46-50). When the tree fell, the log jack-knifed around the uncut portion, leaving a spire of wood at one side of the stump. One of the barberchair stumps at Robson Bight had steep-angled cut marks forming ridges on its surface, similar to those from other areas attributed to metal chisels used in an unconventional manner (Arcas Associates 1984:58 and Eldridge and Eldridge 1988:53). The other Robson Bight barberchair stump was interesting in that a tree nursing on its cut surface had been cut down during the 1911 construction of the telegraph line. This means that the stump itself predates the telegraph line by many years.

One stump was flat-topped. Flat topped stumps can result from either a traditional girdling felling technique or from the modern undercut-backcut method. The last two stumps were too poorly preserved to determine the shape of the cut surface.

The average diameter of these stumps was 117 cm; sizes range from 80 cm to 160 cm. This is considerably smaller than the normal average of about 140 cm DBH, found from southern Vancouver Island to the Queen Charlotte Islands (e.g., Arcas Associates 1984:53; Bernick 1984:55, 67, 86; Eldridge 1988:11). The small size of the Robson Bight examples may only be the result of the small sample size, but the fact that all but one is below the average for other areas suggests that large trees were not being harvested from this area. The reason for this is not clear, as the expectation would be for average to above average trees. Large trees are expected in this traditionally remote area because big, clear-grained trees could become scarce in more accessible places. As they became scarce near village sites, private ownership of stands would likely be enforced, making large trees unavailable to low status people. These people would be forced to travel long distances to remote areas if they were to obtain such trees.

The average height of the stumps is 194 cm, ranging from 140 cm to 270 cm. This is slightly lower than the 200-210 cm average values for Meares Island and Mercantile Creek (Arcas Associates 1984:53; Eldridge 1988:12), but

taller than the 175 cm found in the Newcastle Block (Eldridge and Eldridge 1988:50). Because it is likely that the height of stumps is related to the falling technique used, the difference between the Robson Bight and Newcastle stump heights indicate that Kwakwaka speakers' techniques were probably quite varied.

5.0. SPATIAL DISTRIBUTION.

This section analyses the spatial distribution of archaeological sites and culturally modified trees in Robson Bight. The distributions are also examined on a regional basis and compared to study areas elsewhere.

5.1. Spatial Distribution of Archaeological Sites.

Only five prehistoric archaeological sites (excluding CMTs) are recorded in Robson Bight ecological reserve (see Section 4.1.). Three of the sites are located in the Bight itself: two shell middens and a fishtrap. The fishtrap is located on a small creek channel at the edge of the Tsitika River delta, but is not directly connected to the Tsitika River. Two medium sized middens are located on terraces at the margins of the delta, while two very small middens were located outside the Bight on terraces near major streams.

Although there is a possibility that one or two small sites could have been missed during the survey, it seems unlikely that any really large sites were ever present. Additional fish traps may have once been located in the channels of the Tsitika River and the other major streams. The channels of these streams have steep gravel bars and log jams high above the October river levels, indicating that debris torrents must sweep down river periodically. These high energy floods would have destroyed any fish trap sites in their path. They also mean that a permanent village site would not have been practicable on the low islands forming the Tsitika delta.

To help assess the function of the shell middens, an analysis of the regional distribution of site size was conducted. A computer search of the B.C. Archaeological Site Inventory retrieved a total of 122 shell middens in three Borden grids adjacent to the study area (EdSq, EdSp, and EdSo). These Borden grids include the islands and channels north of Johnstone Strait, where extensive archaeological survey took place in the 1960s and 1970s (e.g., Mitchell 1968). Very small middens are likely to be underrepresented in this sample due to research goals and prevailing field methods (e.g., soil probes were not generally used).

Surface areas are recorded for 108 of the 122 shell middens. The areas vary from 40 sq. m. to 25,000 sq. m. The distribution of these values is presented in Figures 2 and 3 (the title refers to the Johnstone Strait region, rather than the Johnstone Strait physiographic feature itself). Figure 2 uses a standard scale for the X-axis, and shows most shell middens to be on the left side of the chart, or less than about 2,000 sq. metres. Figure 3 presents the same data using a geometric X-axis scale. This figure shows a relatively simple unimodal distribution, with the greatest number of sites in the 1,600 - 3,200 sq. m. bar. The relatively few sites larger than this can safely be assumed to be major winter villages or fall fishing villages. There are no other clear groupings in this figure, other than the small number below 100 m. sq., but this feature could be attributed to non-intensive survey methods. The divisions may also indicate functional groups.

Figure 4 enlarges the X-axis scale to clearly show the small and medium size sites. This figure suggests that these sites can be divided into three groups based on size. Small sites less than 400 sq. m. form one clearly defined group. Sites between 400 and 1,400 sq. m. comprise a second group, while sites larger than 1,600 sq. m. form a third. We hypothesize that the smallest group of sites are too small to have contained substantial houses, and therefore represent short term special activity areas or seasonal camps occupied by very small groups. The group of sites between 400 and 1,400 sq. m. may represent seasonal camps occupied by larger kin groups (extended families or numayms) or special activity areas used by small families over long periods of time. The larger sites in this group probably include some small winter villages.

House depressions or standing house remains are present in 18 of the 108 sites. These mostly occur in the largest sites (generally over 5000 sq. m., ranging up to 25,000 sq. m.), but two are only 1,200 sq. m., providing a lower size limit for sites which could have been winter villages. This value is only slightly lower than the 1,400-1,600 sq. m. break suggested by the distribution of sites. Thus, the data are in general agreement.

JOHNSTONE STRAIT SHELL MIDDENS

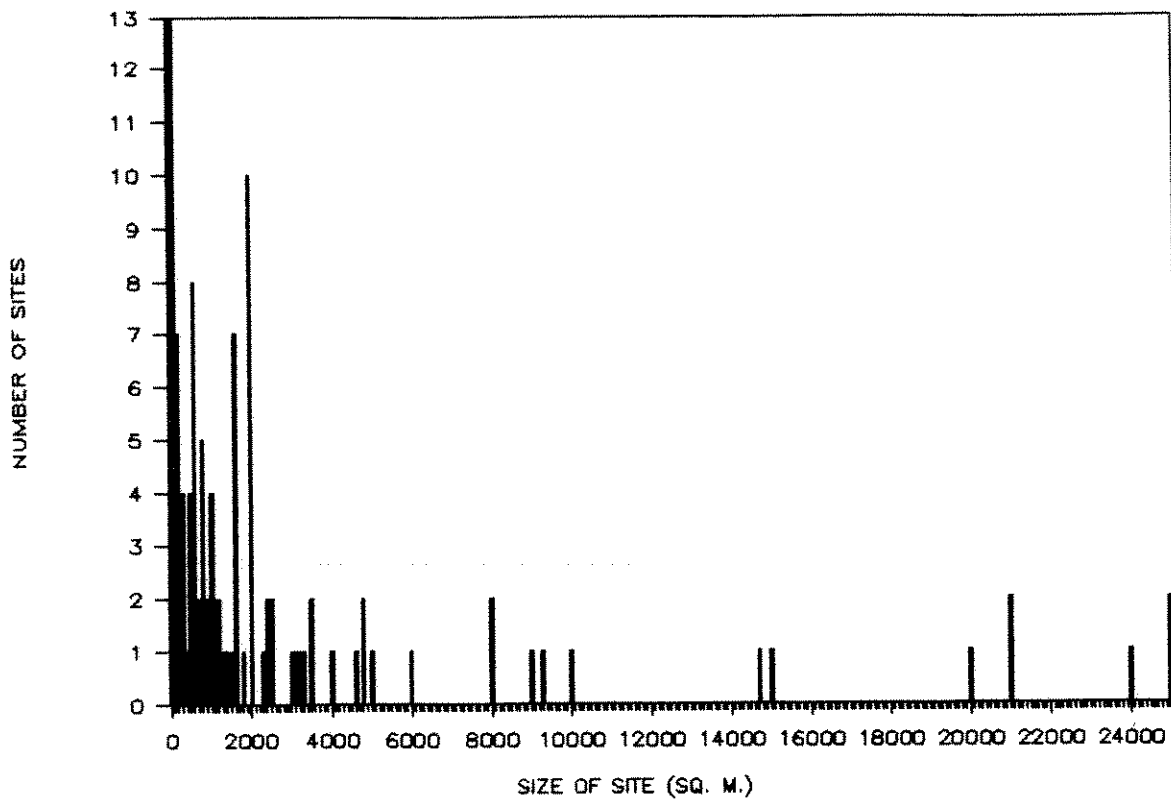


Figure 2. Shell midden sites in Johnstone Strait.

JOHNSTONE STRAIT SHELL MIDDENS

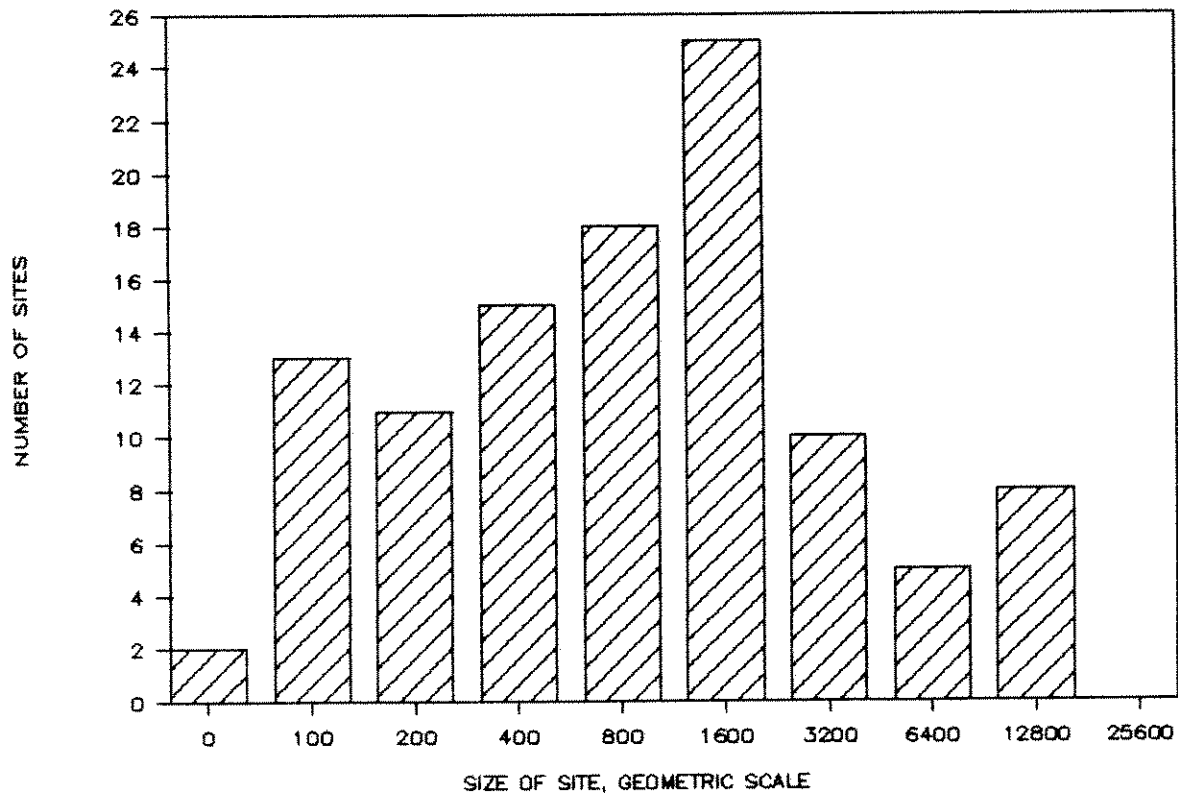


Figure 3. Shell midden sites in Johnstone Strait.

JOHNSTONE STRAIT SHELL MIDDENS

DETAIL OF SMALL-MEDIUM SITES

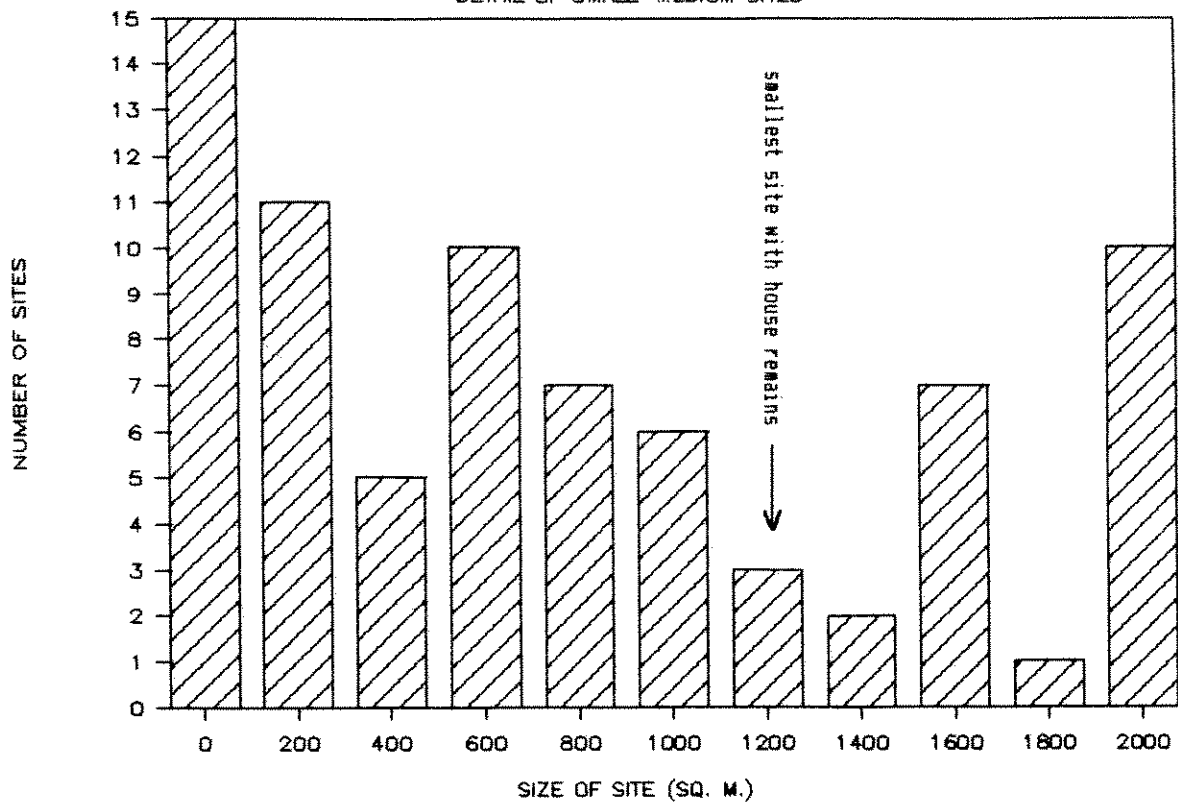


Figure 4. Johnstone Strait shell middens, detail of small-medium sites.

ROBSON BIGHT SHELL MIDDENS

DETAIL OF SMALL-MEDIUM SITES

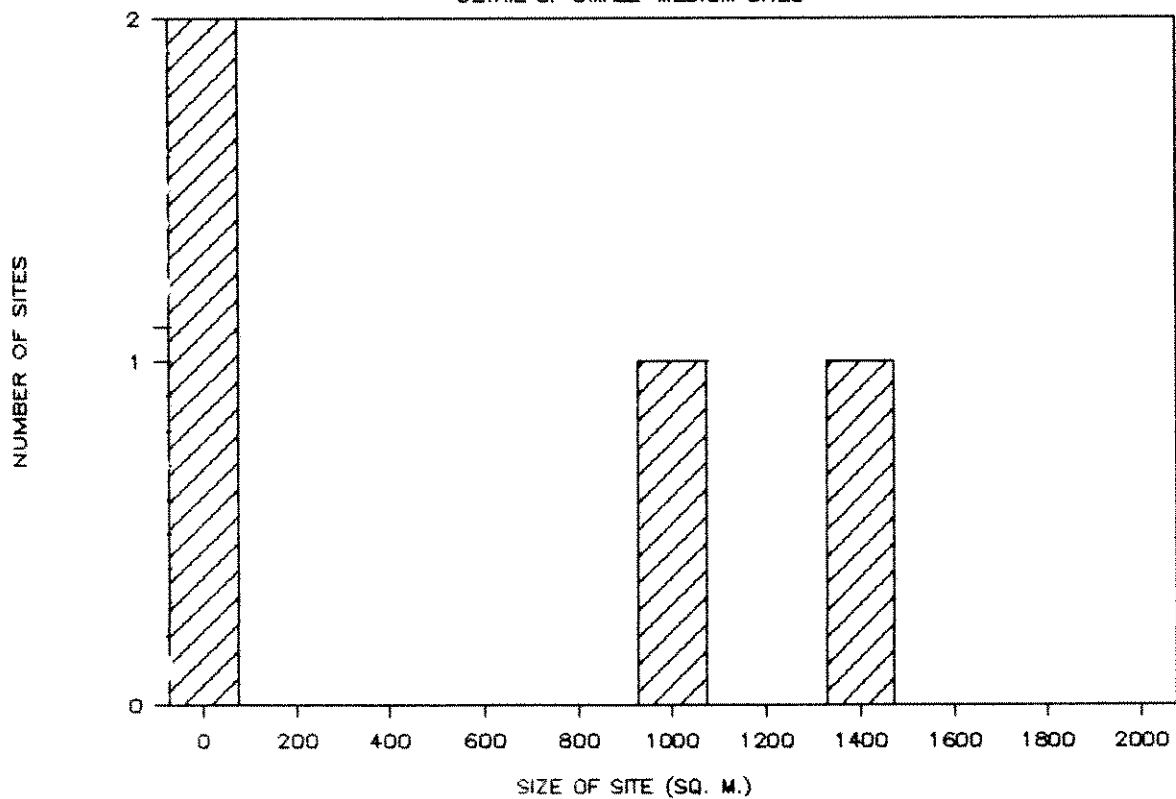


Figure 5. Robson Bight shell middens, detail of small-medium sites.

Figure 5 presents the Robson Bight shell middens for comparison. The two smaller sites obviously belong to the smallest group, attributed to short term activities by small groups of people. The site at 1,400 sq. m. could be a small winter village (or fishing camp with large smokehouses), but the 1,100 sq. m. site is too small to have had permanent houses. The ethnographic village of us7ekw almost certainly is the largest of these sites, EcSp-4 (see Section 4.1. and Appendix 3) while the smaller site may have been an infrequently used fishing camp.

5.2. Spatial Distribution of Culturally Modified Trees.

As discussed in Section 3.1, the judgemental sample introduced bias which probably results in an overrepresentation of the density of CMTs. One method of measuring how closely the sample approximates a truly random one is to compare the proportion of stand types represented in the transect sample with those in a hypothetical random sample. This section begins with such an analysis and continues to analyse the distribution of CMTs with respect to stand types and distance from water.

5.2.1. Comparison of surveyed transects with a random sample.

To test for the degree of bias, first a random systematic sample was drawn: north-south lines were placed on the maps at 300 m intervals, with the initial location formally randomized. Then the length of each of the 23 lines was measured and divided by the stand types crossed. The proportion of each stand in this sample should closely approximate the proportion of each type in the entire study area. For this analysis, the stand types were grouped into five classes: "Cedar" in which western red cedar was a major species (i.e., >18% of the total and shown in stand formulas on forest cover maps); "Cypress" in which yellow cedar was a major species; "Old Hemlock" in which stands were more than 150 years old and cedar was absent or nearly so; "Young Hemlock" in which cedar was absent and the stands were less than 150 years old; and, "Alder/scrub/rock" which included areas where conifers were absent.

A comparison of the surveyed transects to the random sample is presented as Figure 6. No very great differences are evident. Old hemlock, cypress, and cedar stands are somewhat overrepresented, while young hemlock and alder/scrub/rock are somewhat underrepresented. The difference is not significant ($p=0.43$), when analysed with the Wilcoxon U rank test (Thomas 1976). The overall similarity suggests that the judgemental sample is not greatly different than a random sample as far as stand types are concerned, and overall CMT density values for the study area should not be too far out of line. It should be kept in mind, however, that although the effect of emphasizing certain forest cover types can be controlled for, the consequence of selecting areas with relatively easy access cannot be measured.

5.2.2. CMT Density by Stand Type.

CMT density can be expected to vary with stand type. A summary of the judgemental sample stratified by stand type is presented in Table 2. The complete data are presented in Appendix 2.

The most outstanding value in Table 2 is the high density of bark-stripped yellow cedar trees in stands where yellow cedar is common. The value of 56 trees per hectare is exceptional and suggests that yellow cedar bark was the primary tree resource aboriginally exploited in the study area. This conclusion is reinforced by observing that the density of bark-stripped yellow cedar trees is even higher than bark-stripped red cedar in red cedar stands (i.e. those stands where yellow cedar is too rare to be shown on forest cover maps).

Bark-stripped red cedar trees are located, not surprisingly, in stands where red cedar is a major species. Somewhat more unexpected is their presence in areas where cedar was rare. This is due, in part, to misclassification of forest stands on maps, but it is also the result of veteran stripped trees in young (fire succession) stands.

SURVEYED VS. A RANDOM SAMPLE

OF STAND TYPES

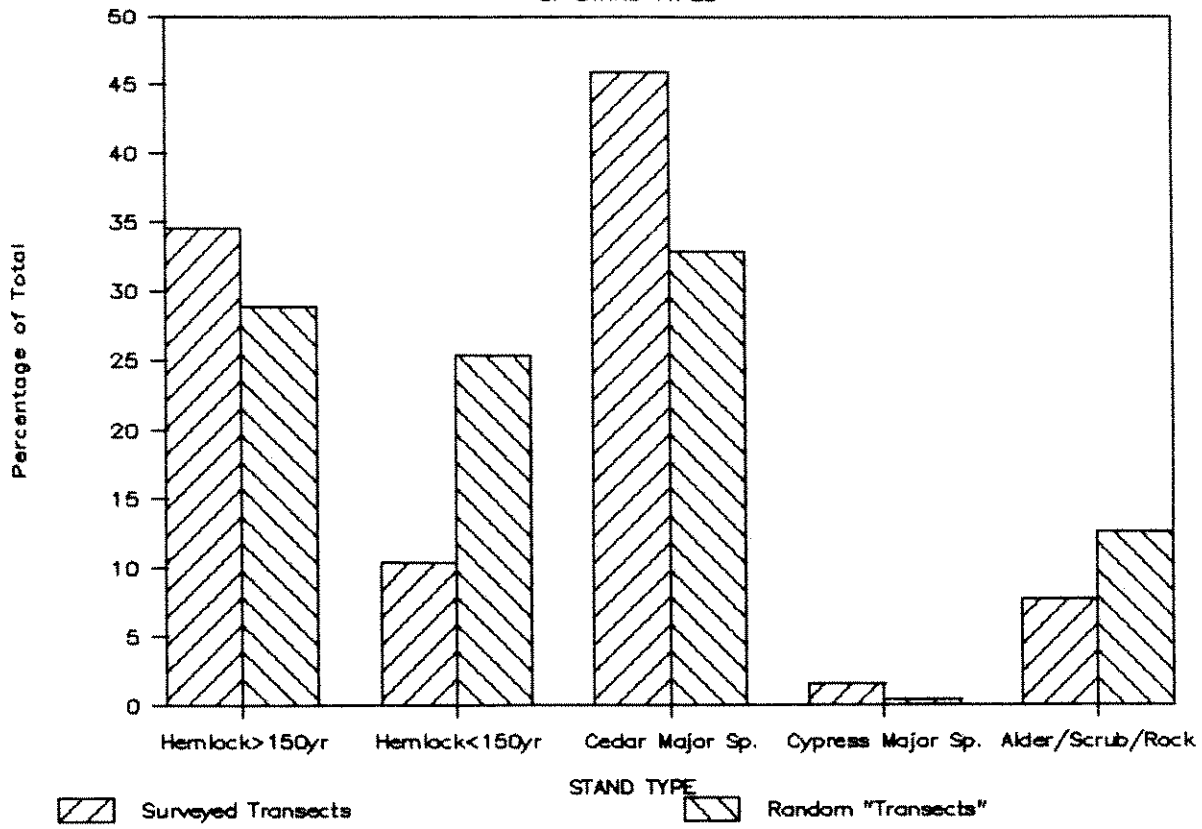


Figure 6. Surveyed vs. a random sample of stand types.

Table 2. Robson Bight CMT density by stand type.

	Hemlock No Cedar >150 years	Hemlock No Cedar <150 years	Cedar Major Species	Cypress Major Species	Alder/ Scrub/ Rock	Total
Bark-stripped Trees						
Red Cedar						
Total	4	2	15	0	0	21
Trees per ha.	0.7	1.2	2.0	0.0	0.0	1.3
Yellow Cedar						
Total	8	0	24	14	0	46
Trees per ha.	1.4	0.0	3.2	56.0	0.0	2.8
Hemlock						
Total	5	0	0	0	0	5
Trees per ha.	0.9	0.0	0.0	0.0	0.0	0.3
Aboriginally Logged Trees						
Total	0	0	3	0	0	3
Trees per ha.	0.0	0.0	0.4	0.0	0.0	0.2

Bark-stripped hemlock trees are restricted to stands of old growth hemlock where cedar is absent. Aboriginally logged trees are restricted to stands of old growth cedar.

5.2.3. CMT Density by Distance to Shoreline.

The distance to shoreline is strongly correlated with the density of CMTs in several study areas of the B.C. Coast (Arcas Associates 1984; Crown Forest Products 1987; Eldridge and Eldridge 1988). Table 3 lists the Robson Bight CMT data by distance to shoreline. Figure 7 compares the values in five study areas.

The Mercantile Creek area, near Ucluelet B.C., was unusual in that the high density of bark-stripped red cedar trees was nearly constant over the entire distance range. The overall level in Robson Bight is low compared to the Newcastle and Mercantile areas, but is higher than either the Hanson

Table 3. Robson Bight CMT density by distance to shoreline.

	0-100	100-200	200-300	300-400	400-500	500-600	600-700	>700	Total
Transect Length of Transects									
Total	1445	1985	1150	880	1055	640	260	715	8130
Hectare	2.9	4.0	2.3	1.8	2.1	1.3	0.5	1.4	16.3
Red Cedar Bark-strip Scars									
Total	8	10	0	5	6	1	0	0	30
Density (Scars per Hectare)	2.8	2.5	0.0	2.8	2.8	0.8	0.0	0.0	1.8
Red Cedar Bark-strip Trees									
Total	6	9	0	3	2	1	0	0	21
Density (Trees per Hectare)	2.1	2.3	0.0	1.7	0.9	0.8	0.0	0.0	1.3
Yellow Cedar Bark-stripped Trees									
Total	0	0	20	4	8	14	0	0	46
Density (Trees per Hectare)	0.0	0.0	8.7	2.3	3.8	10.9	0.0	0.0	2.8
Hemlock Bark-stripped Trees									
Total	5	0	0	0	0	0	0	0	5
Density (Trees per hectare)	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
Aboriginally-logged Trees									
Total	3	0	0	0	0	0	0	0	3
Density (Trees per Hectare)	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Total CMTs									
Total	14	9	20	7	10	15	0	0	75
Density (CMTs per Hectare)	4.8	2.3	8.7	4.0	4.7	11.7	0.0	0.0	4.6

BARK-STRIPPED CEDAR DENSITY

IN FIVE STUDY AREAS

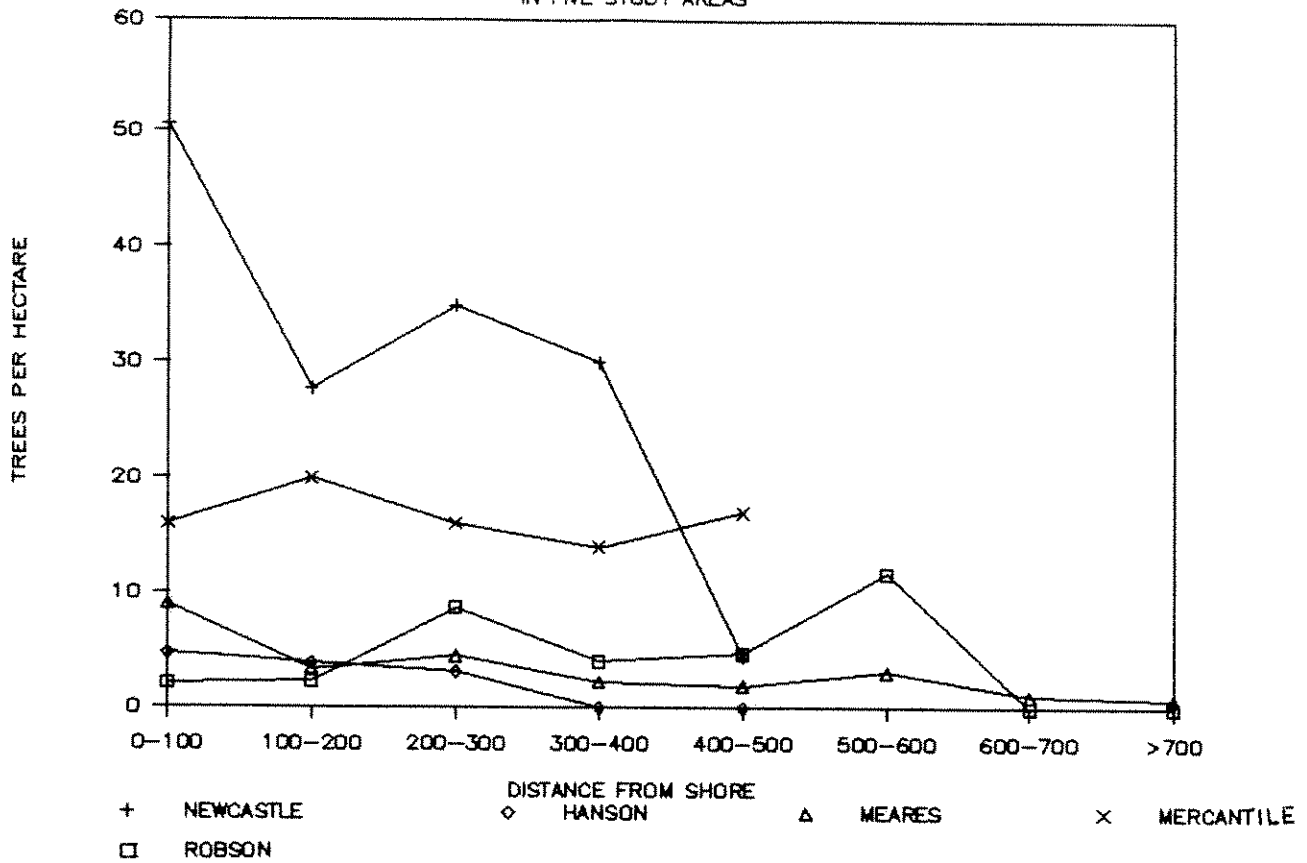


Figure 7. Bark-stripped cedar density in five study areas.

BARK-STRIPPED CEDAR DENSITY

IN THREE STUDY AREAS

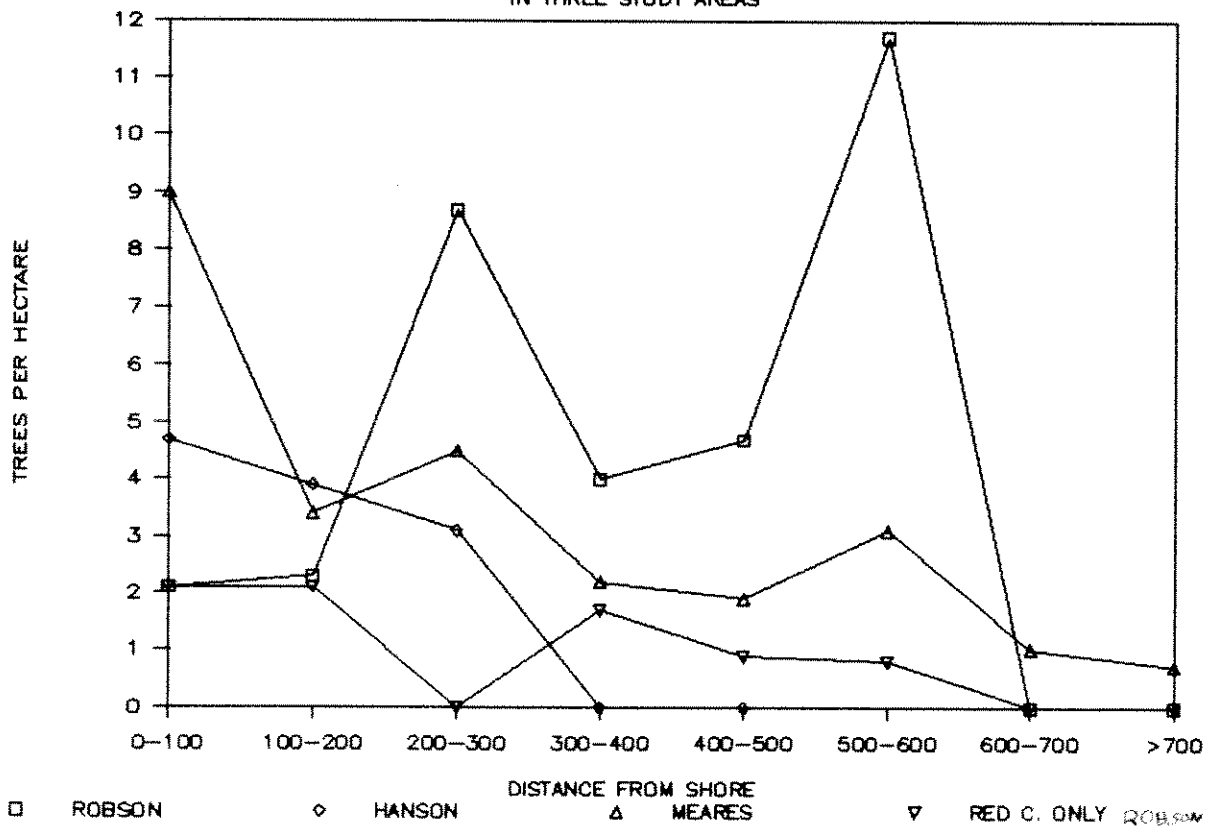


Figure 8. Bark-stripped cedar density in three study areas.

Island or Meares Island study areas. For comparison purposes, it must be kept in mind that Meares Island is a random sample and that both Robson Bight and Hanson Island overestimate the true overall density (the Hanson Island sample was systematic, but areas where cedar was scarce were not included).

The Robson Bight distribution is similar to that of Mercantile Creek in one important respect: the values remain constant or increase as one moves inland, until the distance from shore is over 600 m. In Mercantile Creek, the reason for a constant high level of bark-stripping was attributed to a generally intensive level of forest harvesting. The reason for the continuation of high values in Robson Bight, which has a low level of forest use, is the inclusion of yellow cedar. Yellow cedar is generally found only at high elevations and, therefore, usually a long distance from shore.

Figure 8 includes only the lower values of Robson Bight, Meares Island and Hanson Island, in order to show the shape of distributions clearly. The Robson Bight values for red cedar are separated from the combined red and yellow cedar values. The density for red cedar is low and decreases relatively smoothly, whereas yellow cedar produces high peaks in inland areas. Arcas Associates (1984:67) also found that most of the interior Meares Island bark strips were on yellow cedar trees. The distributions are quite similar, with peaks at 200-300 and 500-600 m. It is possible that the 500-600 m. value represents the closest (and lowest) areas where yellow cedar occurs in quantity.

The Robson Bight values for aboriginally logged tree density are lower than those of any other area, with the exception of Hanson Island (where no logged trees occurred within transects). The few Robson Bight examples were all found within 100 m of the shore. This concentration of logging features near the coast was also a feature of the Meares Island (Arcas Associates 1984) and Mercantile (Eldridge 1988) distributions. In contrast, the logged trees in the Newcastle area were all found at least 200 m inland (Eldridge and Eldridge 1988). This departure was attributed to the very high density of bark stripping near the coast of Newcastle: bark stripping effectively ruined trees for logging purposes. The low rate of stripping red cedar trees at Robson Bight resulted in suitable trees being available for

logging closer to the shore, although it is evident that the opportunity for harvesting these trees was seldom used.

The CMT distributions support the conclusion that in Robson Bight red cedar was relatively unimportant and yellow cedar was the primary tree resource in the prehistoric economy. They also support the contention that much of Johnstone Strait itself was little used by Indian people (see Section 6.0.).

6.0. ARCHAEOLOGICAL EVIDENCE FOR NATIVE AND HISTORIC USE OF ROBSON BIGHT.

This section summarizes the archaeological interpretations regarding the native and historic use of Robson Bight. A complete study of ethnographic native use of the Bight is presented in the Appendix 3 report by Bouchard and Kennedy.

The density and types of sites and CMTs in the study area suggests that Native use and occupation was mostly sporadic and brief. Even the largest and deepest site was probably only a small village of a few houses, probably occupied for no more than a few generations. In contrast to this pattern, the myriad islands and channels to the north of Johnstone Strait have a high density of archaeological sites, particularly large shell middens which were probably winter villages. This pattern is not simply a reflection of the relative amounts of archaeological survey in the two areas, because it is repeated in the distribution of ethnographic place names. There are relatively few ethnographic place names along Johnstone Strait itself, but many along the passages to the north (e.g., Boas 1934, Dawson 1888, this paper Appendix 3). Together with the archaeological evidence, this suggests that aboriginal activity in the region was concentrated in general to the north of Johnstone Strait and Robson Bight.

It is likely that continuous Native use of the Robson Bight area was limited by three main environmental factors: storm protection, the unreliability of fishing due to flooding, and the paucity of molluscan resources.

Robson Bight is the only protected water within the ecological reserve, but the degree of protection is limited. Except for the river itself, no landing place is protected from both westerly and easterly winds, and heavy surf can form over the shallows in front of the river mouth during southeast storms. The delta islands are level, but as discussed above, they are unsuitable for a winter village location. The river valley sides are generally steep and rugged; there are no terraces suitable for a village on the lower river. The locations of the known shell middens are virtually the only ones which have the combination of relative shelter and gentle, well-drained terrain. Both middens are located as far into the Bight as possible

(thus giving maximum shelter); the eastern site (EcSp-2) has, just offshore, a small rocky islet which provides some protection from surf in a southeasterly storm. Nevertheless, both these sites are medium-sized shell middens, which probably represent fishing camps or villages occupied for short periods.

Outside the Bight, there are even fewer protected locations. Each of the two small shell middens east of the Bight is associated with a major creek and each is on a large, level terrace. Both have some protection from southeast winds and surf. Very few other locations in the study area have all these elements combined. In contrast, the islands and channels to the north of Johnstone Strait have many well protected harbours.

The Tsitika river estuary is a good fishing site but may be unreliable. The water volume can vary 1300 fold over the year and such large increases in volume would make fishing stations and facilities unusable. Ham (1980:42) describes ethnographic use of Nimpkish fishing stations and notes that the best fishing locations were sometimes unusable because of flooding. In these years, secondary stations with low productivity had to be used. It is almost certain that the Tsitika River, with its massive changes in water volume, could not be depended on for a fishing station. EcSp-1, the fish trap at the edge of the delta, is located on a small stream independent of the Tsitika watershed and might have provided an alternate fishing station.

In addition, mollusks, particularly clams, are scarce in Robson Bight due to the rapid flow of the Tsitika River and the steep drop-off of the the river delta into Johnstone Strait. This shortage of clams is reflected in the midden shell content, which is mainly barnacles and bay mussels, with a small amount of littleneck and butter clam.

The steep coastline of the study area did have one advantage over lower terrain. High-elevation stands of yellow cedar were closer to the coast, and more easily accessible than in areas of lesser slope. Most of the islands north of Johnstone Strait, where native habitation was heavy, have relatively low topography and yellow cedar would not be found in quantity at these lower elevations. Yellow cedar was much preferred over red cedar for bark clothing and as a trade commodity and, as expected, the stands of yellow cedar in the Robson Bight study area were heavily utilized.

Aboriginal logging was found to be infrequent in the reserve and the trees felled tended to be smaller than those in other areas. This is an unexpected result, because the supply of easily accessible straight-grained large cedar trees suitable for canoe making or split plank production must have been limited in the areas near villages. Indeed, stands of such trees were owned and considerable utilization of the Robson Bight area by lower status people would have been expected. The Robson Bight stands themselves were probably not owned, since so few trees were ever taken from this area.

The relatively light exploitation of red cedar bark in the study area can be explained by the fact that more easily accessible red cedar could be found closer to population centres. This must also be the explanation, although contrary to expectations, for the small amount of logged cedar.

The same characteristics that discouraged Robson Bight from being permanently settled by Native people have also influenced the historic use. The reserve was crossed by a telegraph line, but this minimally impacted the area and no ancillary buildings were constructed. Although the delta was privately bought in 1906, no permanent dwellings were ever erected. The Tsitika River is a good salmon river and Robson Bight is a good commercial fishing location, but seasonal floods and lack of secure protection from stormy weather discouraged its development as a marine service centre. Similarly, studies commissioned by MacMillan Bloedel found that a floating dock and log sorting facility could not be adequately protected from severe weather.

For these reasons, the Tsitika River has the only estuary on the east coast of Vancouver Island in a pristine natural state.

7.0. RECOMMENDATIONS.

The ecological reserve status of the study area provides excellent protection for the six archaeological sites present within the reserve. No commercial or recreational developments are allowed within the reserve and camping is prohibited. If recreational activities, especially camping, are ever allowed, then care should be taken to prohibit camping on recorded sites. In this regard, the sign marking the eastern shore limits of the ecological reserve is presently not on the actual boundary line, but to the west of EcSp-3. This sign should be moved eastward to the mouth of Fine Creek, effectively inhibiting incidental camping on the archaeological site and the reserve.

Rapid erosion of the beach in front of EcSp-4 was noted. Trees have recently become isolated from the bank here, because sediments have been washed away from their roots. This erosion should be monitored and consideration given to site protection or mitigation, if the erosion continues. The major part of the site is presently 15 m back from the beach, but the north end is only about 5 m distant.

The main telegraph line, recorded as EcSp-6, would provide an excellent trail for recreational use should this be permitted in future. The line is well removed from the whale rubbing beaches, and so recreational travel would not interfere with whale behaviour. It passes through very impressive old growth cedar stands and offers scenic high-elevation views of Johnstone Strait. The trail would have to be cleared of deciduous vegetation as this presently impedes progress. The existing trail is almost clear of windfalls, because it was maintained until the 1940s and relatively few have fallen on the trail since that time.

The ecological reserve land boundaries have not been established at the eastern end of the reserve, on land now under the control of Western Forest Products Ltd. The reserve boundary should, at a minimum, follow the tentative boundary line shown on the Western Forest Products 1:5,000 map. This will include and conserve the large stand of culturally bark-stripped yellow cedar trees (probably totalling nearly 100 trees), located at the

summit of the ridge. This ridge is unique in the study area for the presence of yellow cedar as a major species. Serious consideration should be given to enlarging the proposed boundaries at the eastern end of the ecological reserve to include other yellow cedar stands. The closest large stand occurs about 750 m to the south of the one discussed above. Although not examined in the field, the intrinsic value of yellow cedar to Native people was such that this stand too was almost certainly once heavily used by aboriginal bark harvesters.

If yellow cedar stands behind the reserve are commercially harvested in future, provision should be made to collect stem round samples of culturally modified trees, in order to date aboriginal activity in the area. This would not only mitigate the loss of these trees, but would also provide data on historical use which cannot be gathered in the Robson Bight ecological reserve.

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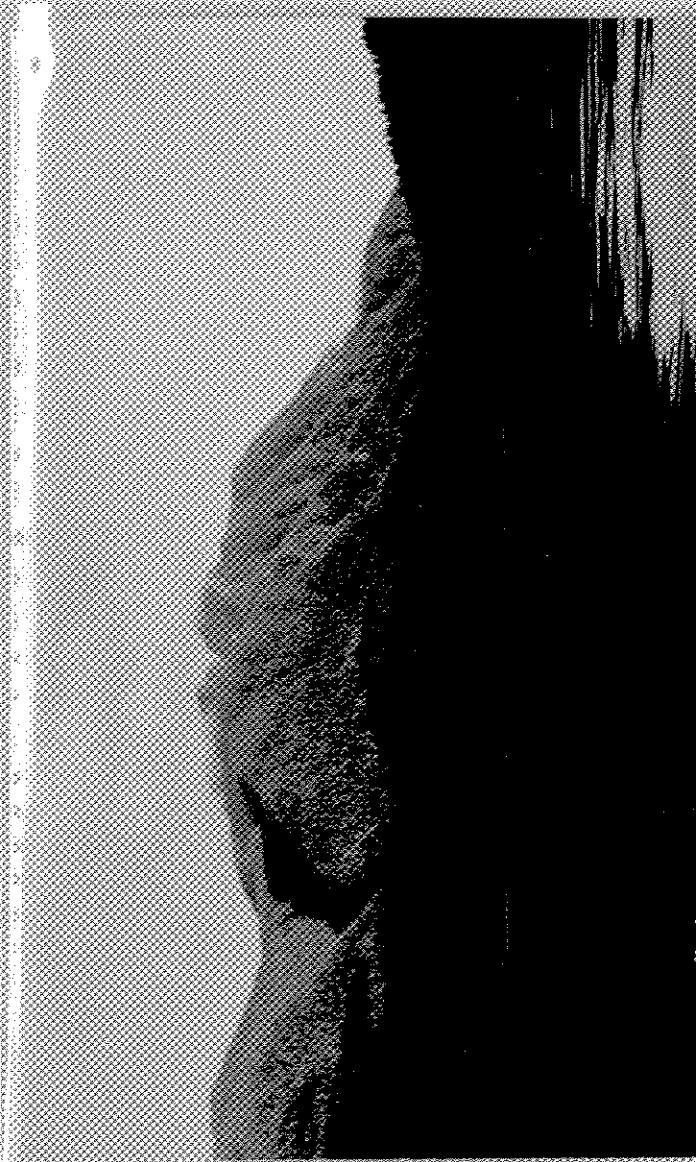
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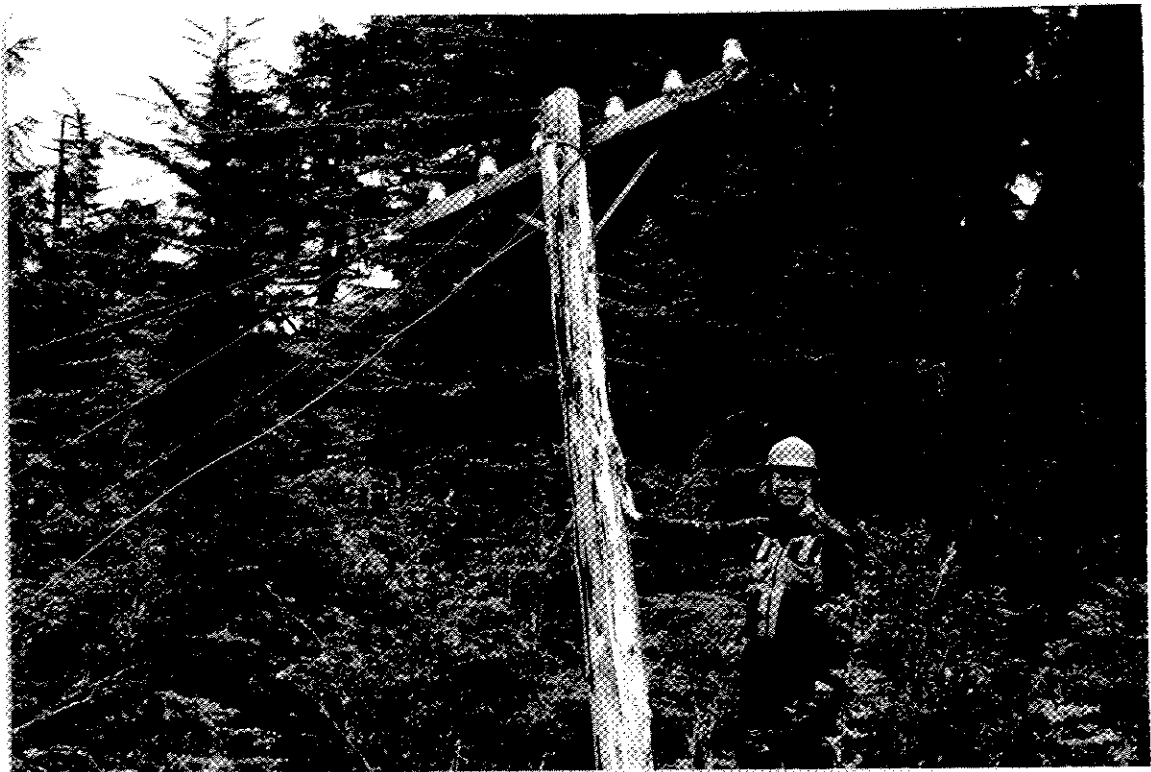


Plate 4. EcSp 5 shell midden.
This small site is located
in the trees behind the
beach. The rocky headland
and creek inlet provide one
of the few sheltered
landings in the reserve
east of Robson Bight.

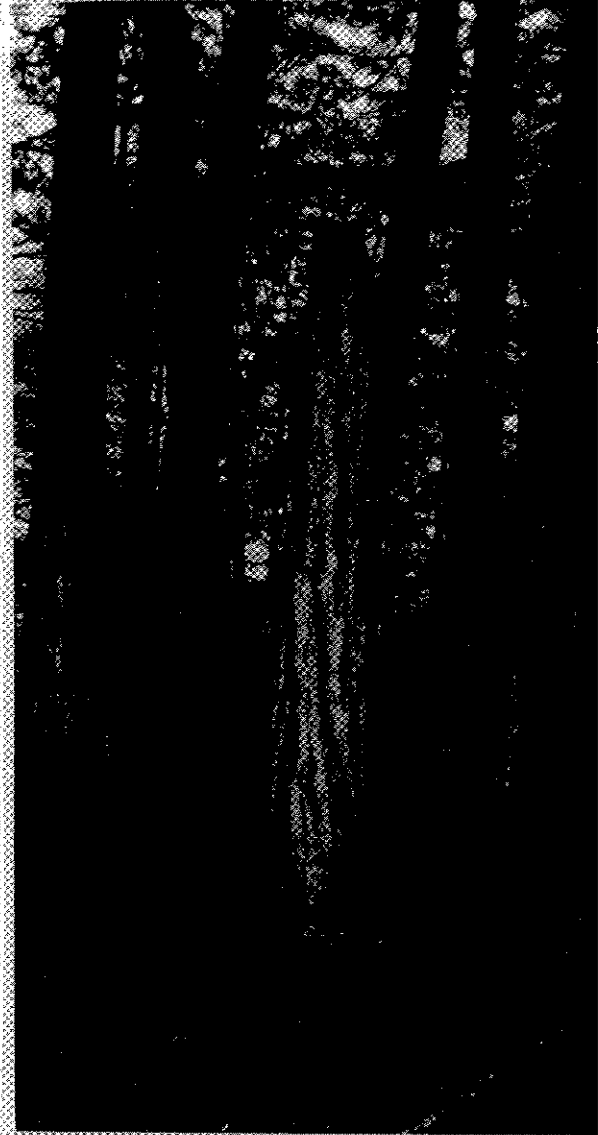
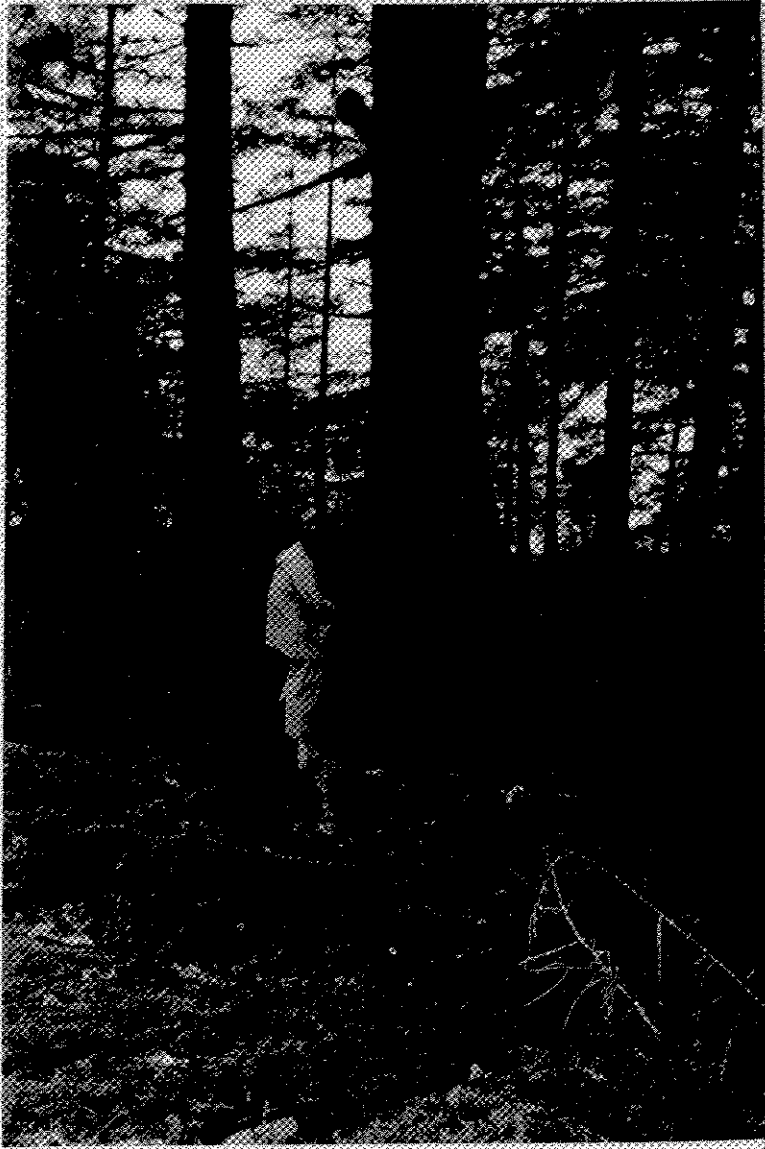
Plate 5. EcSp 1 fishtrap.
This trap is formed of
river cobbles in a 'V',
pointed towards the right
of the picture.

Plate 6. EcSp 6 telegraph line.
Line, built in 1911, is
nearly intact in many places.

Plate 7. Wadham trapping cabin foundation and bark-stripped sitka spruce. Moss-covered poles laying in a rectangle can be seen in the foreground. The Sitka spruce beside the surveyor has had bark removed from the base of the tree.

Plate 8. Bark-stripped red cedar trees.

Plate 9. Bark-stripped yellow cedar tree.





4

1950-000 1111 0




Plate 10. Bark-stripped hemlock snag.
This rectangular scar has
healed to an oval shape.
The tree has since died
and much of the outside
wood has rotted.

Plate 11. Bark-stripped Douglas-fir
tree.
A very large area of bark
has been removed from this
tree (starting at head
level and going past the
top of the photo). New,
smooth, dark-coloured bark
has regenerated over the
scar.

APPENDIX 1. BRITISH COLUMBIA ARCHAEOLOGICAL SITE INVENTORY FORMS.

MAP: 092L/07

SITE No.: EcSp-1

BRITISH COLUMBIA ARCHAEOLOGICAL SITE FORM

IDENTIFICATION

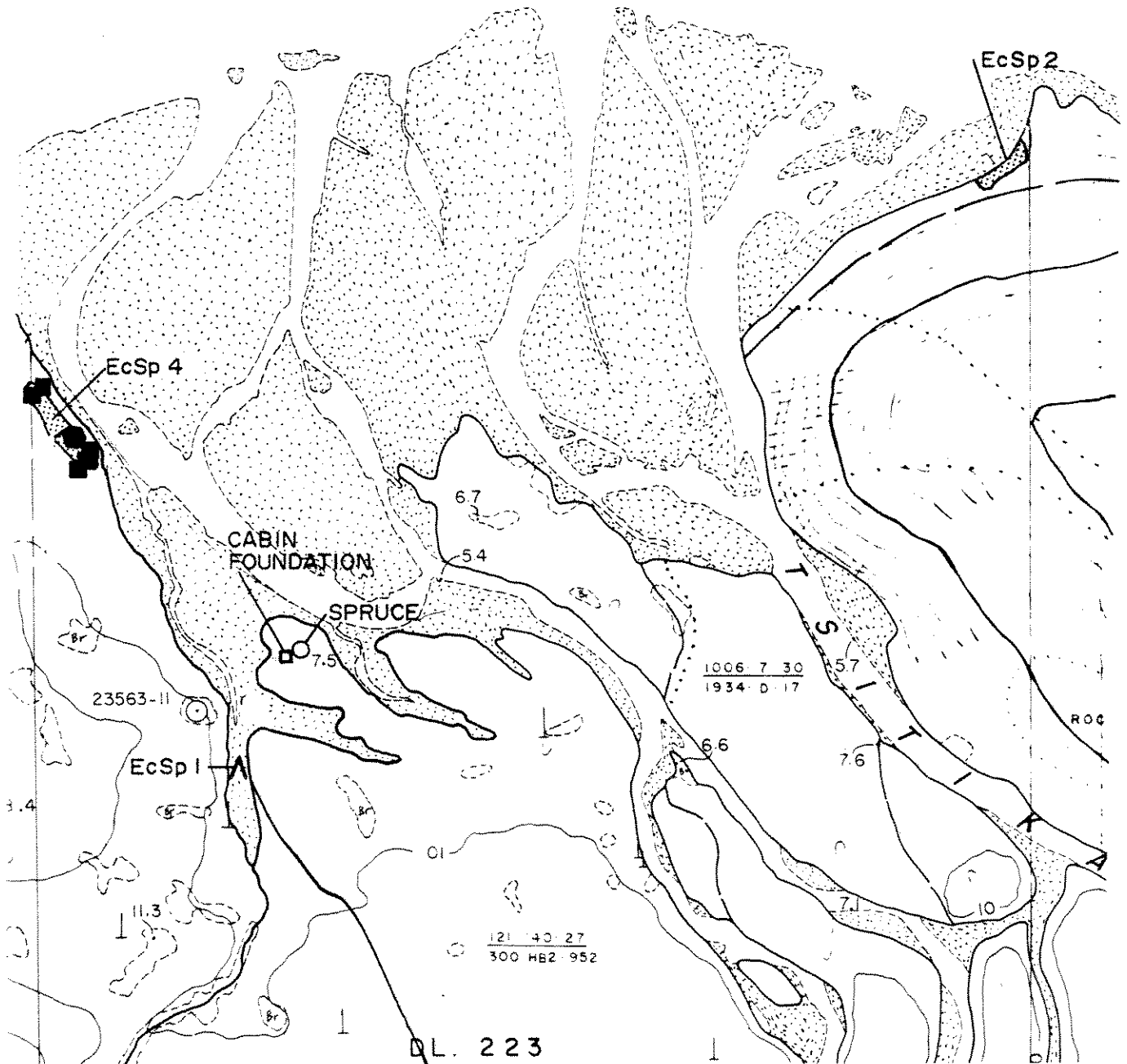
1. **Borden No.:** EcSp-1 2. **Temp. No.:** EcSp-T1
3. **Site No.:** Unknown

LOCATION

4. **Location:** In Ecological Reserve #111, Robson Bight, Johnstone Strait. On an unnamed creek at the westernmost side of the Tsitika River delta, Robson Bight, Johnson Strait, northern Vancouver Island. Site is 470 m southeast of the small point marking the delta edge at UTM 711948.
5. **Access:** By boat from Telegraph Cove, 10 nautical miles east up Johnstone Strait to Robson Bight. Leave boat on western side of delta and walk around beach to creek channel. Site is 125 m upstream from the vegetation line on eastern bank of this stream.
6. **Latitude:** 50 28' 45" 7. **Longitude:** 126 35' 15"
8. **UTM:** 09U XF 712.5 E 944 N 9. **Air Photo:** 23563-11
10. **Map:** 092L-07 11. **Other Map:** M&B 1:5,000 92L.048.3.3
12. **Legal Description:** DL 223
13. **Legal Status:** Ecological Reserve #111
14. **Owner:** Crown
15. **Municipality:**
16. **Regional District:** Mount Waddington
17. **Ethnolinguistic Area:** Kwakiutl, Southern Kwakiutl
18. **Site Type:** Subsistence Feature, fish, trap;
19. **Site Dimensions:** L: 10 m W: 8 m
20. **Cultural Strata:** Cobbles
21. **Depth of Cultural Strata:** Surface
22. **Non-cultural Strata:** Creek bed, gravel
23. **Archaeological Culture:** Unknown
24. **Dates:** Unknown
25. **Features:** Rock fish trap, single 'V'.

site map

O N B I G H T



26. **Present Condition:** 100% intact.

27. **Future Condition:** Protected by ecological reserve status; natural erosion unlikely.

ENVIRONMENT

28. **Vegetation Zone:** Coastal Western Hemlock.

29. **Site Vegetation:** None.

30. **Drainage:** 16. N. Vancouver Is.

31. **Landforms:** 1. Estuarine creek channel 2. River delta.

32. **Elevation:** -1 m ASL.

INVESTIGATIONS AND COLLECTIONS

33. **Collector:** Not applicable.

34. **Excavator:** Not applicable.

35. **Significant Artifacts:** None.

36. **Collections:** None.

37. **Photo Record:** Millennia R.B. 88 Roll 1

38. **Published References:** None.

39. **Unpublished References:** Eldridge, Morley and Sandra Zacharias 1988, "Robson Bight Archaeological Resource Inventory". Mss on file with the Archaeology and Outdoor Recreation Branch, Permit 88-85.

40. **Informant:** Not applicable.

41. **Observer:** Eldridge, Morley; Sandra Zacharias; (Millennia Research).
Date: 19881001

Recorder: Eldridge, Morley (Millennia Research) **Date** 19881004

Revisor: Not applicable.

Tester: Not applicable.

42. **Remarks:** This small fish trap consists of cobbles and small boulders aligned in a 45 degree "V" in the centre of the stream. The "V" faces downstream and there is a gap between the trap and the creek bank at either side. The trap is tidal and could have been used for catching small estuarine fishes or be part of a more complex salmon trap.

MAP: 092L/07

SITE No.: EcSp-2

BRITISH COLUMBIA ARCHAEOLOGICAL SITE FORM

IDENTIFICATION

1. **Borden No.:** EcSp-2 2. **Temp. No.:** EcSp-T2
3. **Site Name:** Unknown

LOCATION

4. **Location:** In Ecological Reserve #111, Robson Bight, Johnstone Strait. Site extends ca. 55m along the low forested terrace behind the pebble beach on the eastern side of the mouth of the Tsitika River, Robson Bight; eastern boundary of DL 223 crosses site at its approx. eastern boundary.

5. **Access:** By boat from Telegraph Cove, 10 nautical miles east up Johnstone Strait to the mouth of the Tsitika River on Robson Bight. Site is directly behind beach on east side of river delta. A small prominent rock just offshore provides limited shelter from SE winds. Eastern boundary of DL 223 is marked by faded pink flagging.

6. **Latitude:** 50 28' 58" 7. **Longitude:** 126 34' 42"
8. **UTM:** 09U XF 717.5 E 951 N 9. **Air Photo:** 23563-11
10. **Map:** 092L-07 11. **Other Map:** M&B 1:5,000 92L.048.3.3

12. **Legal Description:** DL 223

13. **Legal Status:** Ecological Reserve #111

14. **Owner:** Crown

15. **Municipality:**

16. **Regional District:** Mount Waddington

17. **Ethnolinguistic Area:** Kwakiutl, Southern Kwakiutl.

18. **Site Type:** Cultural material, subsurface, shell midden;

19. **Site Dimensions:** L: 55 m W: 20 m

20. **Cultural Strata:** Shell midden composed of very finely fragmented butter clam, some barnacles, charcoal, and ash in a black, greasy loam.

21. **Depth of Cultural Strata:** Max: 15 cm Min: Trace Med: 10 cm

22. **Non-cultural Strata:** forest duff, sterile grey sandy loam containing large number of sub-rounded pebbles and charcoal chunks from old forest fire.

23. **Archaeological Culture:** Unknown

- 24. **Dates:** Unknown
- 25. **Features:** Unknown
- 26. **Present Condition:** 1988: intact except for beach erosion.
- 27. **Future Condition:** Protected by ecological reserve status; slow rate of natural erosion.

ENVIRONMENT

- 28. **Vegetation Zone:** Coastal Western Hemlock.
- 29. **Site Vegetation:** young stand of western hemlock, balsam fir, western red cedar, deer fern, salal, mosses. Fire in area ca. 1871.
- 30. **Drainage:** N. Vancouver Is.
- 31. **Landforms:** 1. River delta shoreline. 2. Terrace.
- 32. **Elevation:** 1 - 2 m ASL.

INVESTIGATIONS AND COLLECTIONS

- 33. **Collector:** Not applicable.
- 34. **Excavator:** Not applicable.
- 35. **Significant Artifacts:** None.
- 36. **Collections:** None.
- 37. **Photo Record:** Millennia Research R.B. 88 Roll 1
- 38. **Published References:** None.
- 39. **Unpublished References:** Eldridge, Morley and Sandra Zacharias 1988, "Robson Bight Archaeological Resource Inventory". Mss on file with the Archaeology and Outdoor Recreation Branch, Permit 88-85.
- 40. **Informant:** Not applicable.
- 41. **Observer:** Eldridge, Morley; Sandra Zacharias; (Millennia Research).
Date: 19881001
Recorder: Zacharias, Sandra (Millennia Research) **Date** 19881005
Revisitor: Not applicable.
Tester: Eldridge, M. (Millennia Research). **Date:** 19881001
- 42. **Remarks:** Ethnographic evidence suggests that permanent habitation of the Robson Bight area had ceased long before 1914 (Bouchard and Kennedy in Eldridge and Zacharias 1988). This site is too small to be **us7ekw**, the place

of origin of the Tlitlkit Kwagulth: us7ekw is more likely to be EcSp-4 on the western side of the Bight.

This medium-sized buried shell midden consists of apparently discontinuous pockets of finely crushed clam shell in a black greasy matrix. Shell is eroding out onto the beach directly in front of the site, in the area of greatest midden concentration. At least some of this site must have eroded away, raising the possibility that the site was at one time more extensive than nowadays.

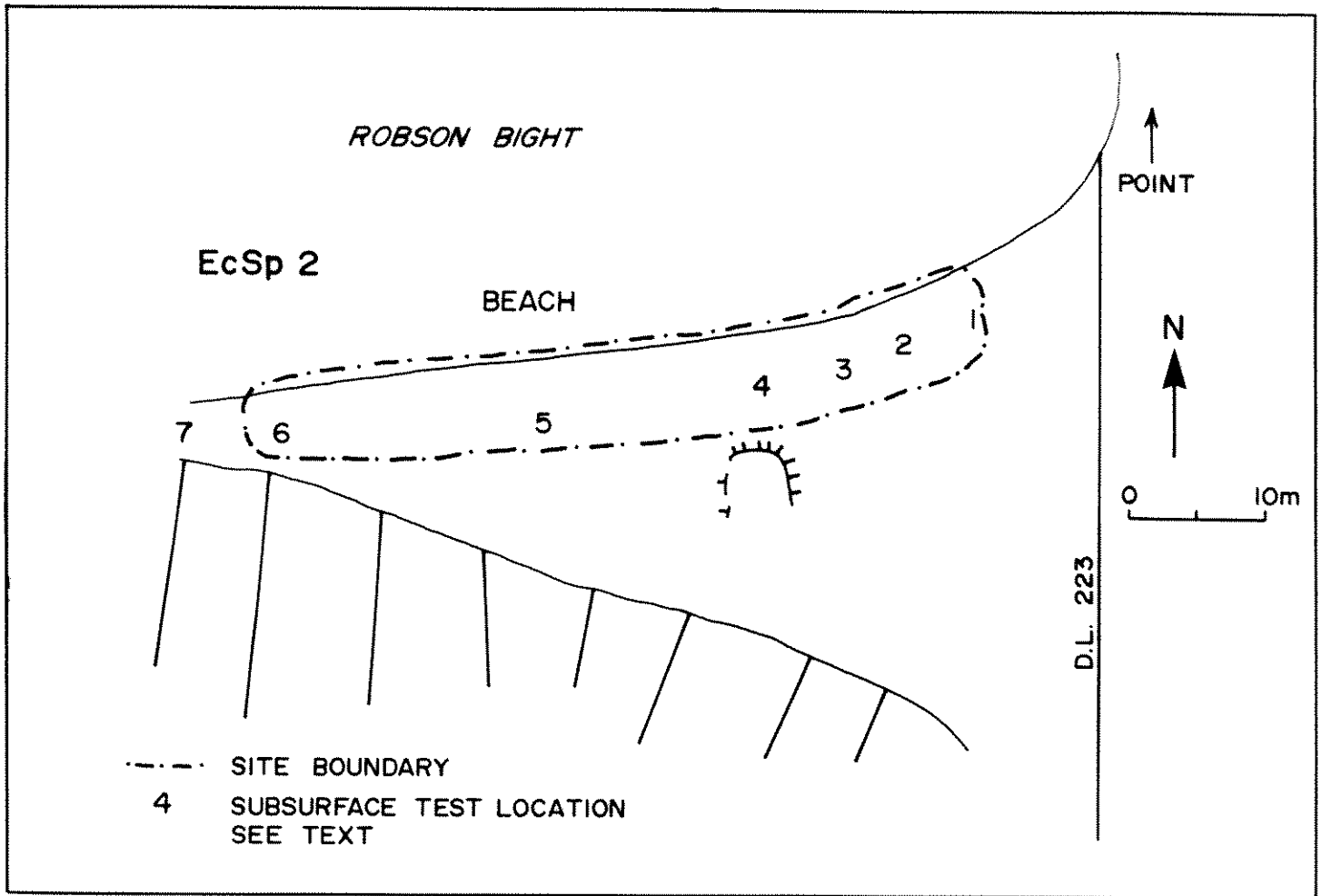
Towards the back of the forested terrace just behind the central part of the site is a distinctive raised area ca. 10 m wide, covered with young hemlock. Probe testing uncovered no shell in this area, which may be a the back ridge of a small rectangular house depression or a natural feature resulting from a small slide. Historic hand-logging has taken place over the site and surrounding area. Widespread subsurface charcoal and ash are evidence of an old forest fire (1871 according to the M&B 1:5000 map) on the eastern shore of the Tsitika River at Robson Bight, which may have affected the buried cultural remains. Modern camping and survey of the boundary lines of DL. 223 have disturbed vegetation and possibly subsurface deposits.

Key to Map Numbers:

Shovel Test/Probe data.

1. Crushed shell 10-20 cm BS.
2. Greasy black soil 10-20 cm BS; 2 m east, no cultural material.
3. No cultural material.
4. Crushed barnacle shell 20-25 cm BS. Semi-rectangular "platform" to south has black greasy pebble fill which could be a house floor, but no definite cultural evidence. This "feature" is more likely to be the toe of a small landslide.
5. Trace of shell midden.
6. Dense barnacle/clam shell midden 10-20 cm BS.
7. No cultural material, terrace only 4 m wide.

site map



MAP: 092L/07

SITE No.: EcSp-3

BRITISH COLUMBIA ARCHAEOLOGICAL SITE FORM

IDENTIFICATION

1. **Borden No.:** EcSp-3 2. **Temp. No.:** EcSp-T3
3. **Site Name:** Unknown

LOCATION

4. **Location:** On the south shore of Johnstone Strait at the eastern edge of Ecological Reserve #111, Robson Bight. Located near the western limit of the fan terrace formed by a major unnamed creek locally known as Fine Creek.

5. **Access:** By boat from Telegraph Cove, 13 and 1/2 nautical miles east down Johnstone Strait to the mouth of "Fine Creek". Land on beach at western edge of fan. Site is directly behind beach.

6. **Latitude:** 50 29' 06" 7. **Longitude:** 126 30' 20"

8. **UTM:** 09U XF 770 E 953.5 N 9. **Air Photo:** Unknown

10. **Map:** 092L-07 11. **Other Map:** Western Forest
Products 92L/7 16D 1:5,000

12. **Legal Description:** TFL 25 Blk 3

13. **Legal Status:** TFL presently held by Western Forest Products;
Negotiations underway with Crown to include foreshore/uplands in Ecological Reserve #111

14. **Owner:** Crown. Tenant: Western Forest Products.

15. **Municipality:**

16. **Regional District:** Mount Waddington

17. **Ethnolinguistic Area:** Kwakiutl, Southern Kwakiutl.

18. **Site Type:** Cultural material, subsurface, shell midden;

19. **Site Dimensions:** L: 10 m W: 7 m

20. **Cultural Strata:** Shell midden composed of mostly whole burnt and unburnt butter clam, some cockles and littleneck, one horseclam fragment, cobble-sized fire-altered rock, and charcoal in a black, but non-greasy loam.

21. **Depth of Cultural Strata:** Max: 20 cm Min: Trace Med: 20 cm

22. **Non-cultural Strata:** top forest duff 20 cm deep; bottom sterile yellow-brown coarse silt mixed with a large quantity of sub-rounded pebbles.

23. **Archaeological Culture:** Unknown

- 24. **Dates:** Unknown
- 25. **Features:** Clam baking facility.
- 26. **Present Condition:** 1988: intact.
- 27. **Future Condition:** Protected by ecological reserve status.

ENVIRONMENT

- 28. **Vegetation Zone:** Coastal Western Hemlock.
- 29. **Site Vegetation:** stand of western hemlock up to 1 m dbh, balsam fir, Douglas-fir, deer fern, salal, mosses. Many hand-logged stumps on site & vicinity.
- 30. **Drainage:** 16. N. Vancouver Is.
- 31. **Landforms:** 1. Creek fan margin.
- 32. **Elevation:** 5 m ASL.

INVESTIGATIONS AND COLLECTIONS

- 33. **Collector:** Not applicable.
- 34. **Excavator:** Not applicable.
- 35. **Significant Artifacts:** None.
- 36. **Collections:** None.
- 37. **Photo Record:** Millennia Research R.B. 88 Roll 1
- 38. **Published References:** None.
- 39. **Unpublished References:** Eldridge, Morley and Sandra Zacharias 1988, "Robson Bight Archaeological Resource Inventory". Mss on file with the Archaeology and Outdoor Recreation Branch, Permit 88-85.
- 40. **Informant:** Cecil Wadhams Sr. (Alert Bay).
- 41. **Observer:** Eldridge, Morley; Sandra Zacharias; (Millennia Research).
Date: 19881011
Recorder: Eldridge, Morley (Millennia Research) **Date** 19881018
Revisitor: Not applicable.
Tester: Eldridge, M. (Millennia Research). **Date:** 19881011
- 42. **Remarks:** This site is located at Fine Creek which is, according to Cecil Wadhams Sr. of Alert Bay, the closest clam beach to Robson Bight. This information is corroborated by the archaeological data: whereas the middens

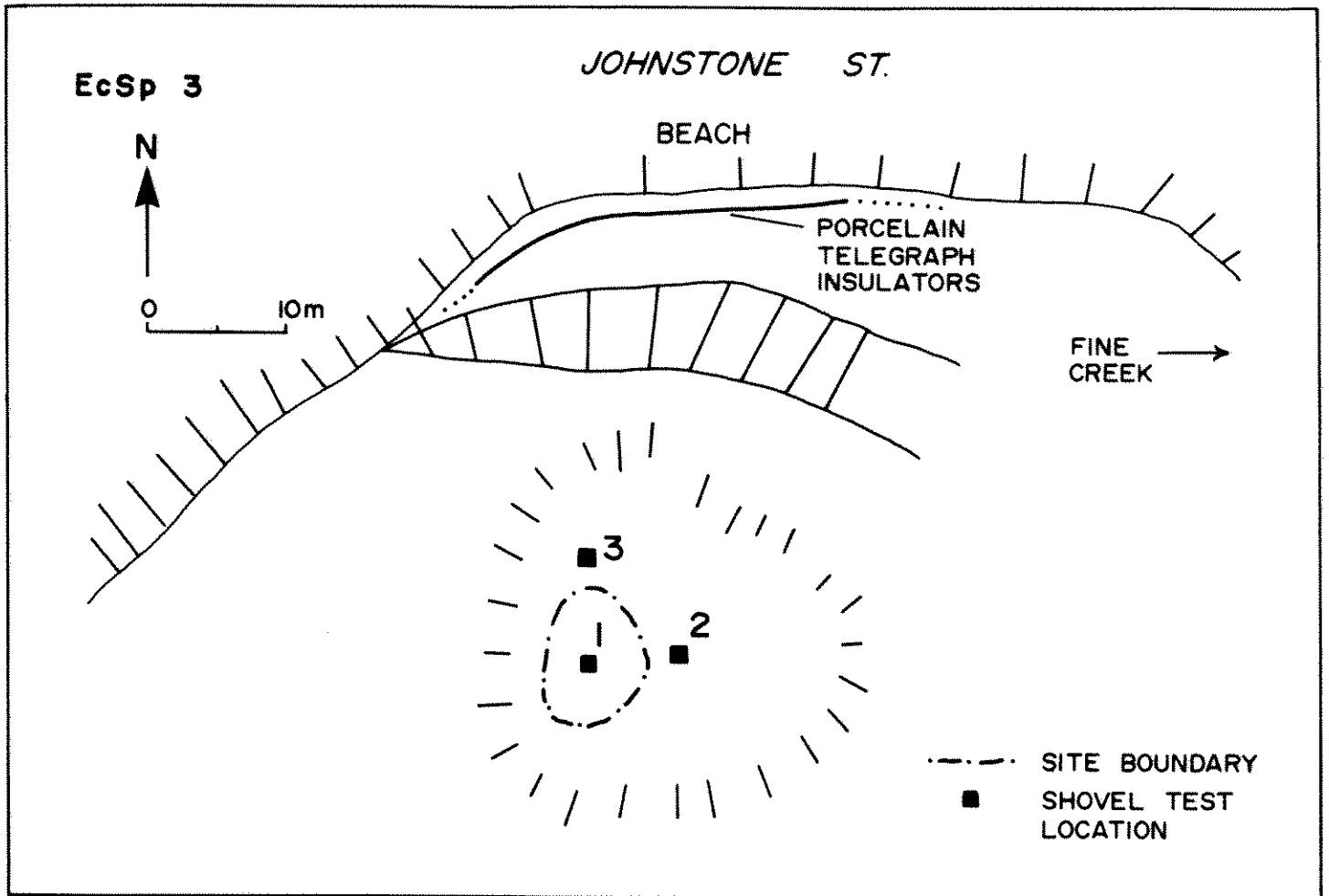
within the bight itself contain mostly barnacle, this site has mostly clam shell. It also appears to be the remains of a very short term camp and possibly a resource processing site.

This site is located on slightly raised ground on the western side of a small point. This location provides a lee for southeast winds, although the degree of shelter is limited and heavy surf makes the beach unsuitable for long stays. Canoes would have to be pulled right up the bank onto the terrace during a storm.

Key for Site Map Numbers:

1. Culturally sterile 0-20 cm BS;
20-40 cm BS whole butter clam, some cockle and littleneck clam, one horseclam fragment, dogwhelk and dense fire-altered rock and charcoal in a black humic, non-greasy matrix;
40 cm + dense sub-rounded pebbles in a yellow brown silt matrix.
2. Culturally sterile.
3. Culturally sterile; trace of shell midden 2 m further south.

site map



MAP: 092L/07

SITE No.: EcSp-4

BRITISH COLUMBIA ARCHAEOLOGICAL SITE FORM

IDENTIFICATION

1. **Borden No.:** EcSp-4 2. **Temp. No.:** EcSp-T4
3. **Site Name:** us7ekw (Bouchard and Kennedy 1988)

LOCATION

4. **Location:** In Ecological Reserve #111, Robson Bight, Johnstone Strait. Site extends ca. 70m along the low forested terrace behind the pebble/cobble beach on the western side of the mouth of the Tsitika River. The western boundary of DL 223 crosses site at its approx. western boundary.
5. **Access:** By boat from Telegraph Cove, 10 nautical miles east up Johnstone Strait to the mouth of the Tsitika River on Robson Bight. Site is directly behind beach on west side of river delta.
6. **Latitude:** 50 28' 50" 7. **Longitude:** 126 35' 17"
8. **UTM:** 09U XF 711.5 E 945.5 N 9. **Air Photo:** 23563-11
10. **Map:** 092L-07 11. **Other Map:** M&B 1:5,000 92L048.3.3
12. **Legal Description:** DL 223
13. **Legal Status:** Ecological Reserve #111
14. **Owner:** Crown
15. **Municipality:**
16. **Regional District:** Mount Waddington
17. **Ethnolinguistic Area:** Kwakiutl, Southern Kwakiutl.
18. **Site Type:** Cultural material, subsurface, shell midden; cultural material, surface, resource use, culturally-modified tree.
19. **Site Dimensions:** L: 70 m W: 20 m
20. **Cultural Strata:** Stratified shell midden composed of: 1) 0-15 cm, duff; 15-20 cm, yellow culturally sterile sands; 20-35 cm, barnacle with some clam, FAR, charcoal; 35-45 cm, mussel with some butter clam, chiton, FAR, etc.; 45-50 cm, mixed barnacle/clam layer, all in a black, greasy loam. Depths and degree of crushing vary widely from place to place.
21. **Depth of Cultural Strata:** Max: 30 cm Min: Trace Med: 20 cm
22. **Non-cultural Strata:** 0-15 cm forest duff; over 50 cm, sterile yellow sandy loam.

23. Archaeological Culture: Unknown

24. Dates: Unknown

25. Features: Areas of finely crushed shell may indicate house floors or other high-traffic areas.

26. Present Condition: 1988: intact except for tree turbation.

27. Future Condition: Protected by ecological reserve status; rapid rate of natural erosion on beach front could eventually affect midden.

ENVIRONMENT

28. Vegetation Zone: Coastal Western Hemlock.

29. Site Vegetation: stand of mostly relatively young western hemlock, balsam fir, and western red cedar; deer fern, salal, mosses. Some very large hemlock and Douglas-fir veterans are present on the site, which has been commercially logged during the historic period.

30. Drainage: 16. N. Vancouver Is.

31. Landforms: 1. River delta shoreline. 2. Terrace.

32. Elevation: 7 m ASL.

INVESTIGATIONS AND COLLECTIONS

33. Collector: Not applicable.

34. Excavator: Not applicable.

35. Significant Artifacts: None.

36. Collections: None.

37. Photo Record: Millennia Research R.B. 88 Roll 1

38. Published References: None.

39. Unpublished References: Eldridge, Morley and Sandra Zacharias 1988, "Robson Bight Archaeological Resource Inventory". Mss on file with the Archaeology and Outdoor Recreation Branch, Permit 88-85.

40. Informant: Not applicable.

41. Observer: Eldridge, Morley; Sandra Zacharias; (Millennia Research).
Date: 19881016

Recorder: Zacharias, Sandra (Millennia Research) **Date** 19881018

Revisor: Not applicable.

Tester: Eldridge, M. (Millennia Research). Date: 19881016

42. Remarks: Ethnographic evidence suggests that permanent habitation of the Robson Bight area had ceased by ca. 1840 (REF). This site is almost certainly us7ekw, the place of origin of the **Tlitlkit Kwagulth**.

There is a great deal of variation within this medium-sized shell midden. The degree of crushing of the shell varies from almost none (i.e., mostly complete or large pieces of shells) to heavy (small fragments of shell). This may correlate with external and internal house areas. Some areas contain only minimal or no cultural material, whereas locations one or two metres distant have substantial amounts. This is probably turbation from root displacement and tree throws.

The large size of several trees growing in the centre of the site suggest that it has been abandoned for several hundred years. The site is generally narrow but is quite large enough to have contained several houses.

A number of rectangular bark-stripped hemlock trees are located on and near the site. These are probably the result of food harvesting of inner bark. In the vicinity are also some large Douglas-fir trees which have had rectangular areas of bark removed, perhaps for use as shelter roofing. This tree use almost certainly post-dates the occupation of the midden site.

Key for Numbers on Site Map:

1. Shovel Test 1. Culturally sterile 0-20 cm BS
20-35 cm BS, predominantly barnacle layer in black silt matrix. large fragments of barnacle, small amount clam, large beach cobbles, most fire-altered.
35-45 cm BS, predominantly bay mussel layer in black silt matrix, very little charcoal. Mussels are medium sized, one complete butter clam, other fragments. These butter clams appear to have no growth after the winter check ring, supporting the possibility of this being a winter village site (if a fall fishing station, then large amounts of growth after the check should be present). This is a very tentative observation, however, and needs to be confirmed with a larger sample and laboratory observation. Additional content includes chiton shell and a burnt fragment of sea mammal (?) bone.
45-50 cm BS, predominantly crushed barnacle. Also some crushed clam.
50 cm + lighter brown silts with dense rounded pebbles, cultural content decreases rapidly to nothing.
1. Probe 1. Large fragments of shell 40-80 cm BS.
2. Probe. Barnacle fragments in greasy black matrix.
3. Probe. Sandy matrix, no cultural material.
4. Probe. Sandy matrix, no cultural material.
5. Crushed mussel shell in roots of windfall tree.
6. Probe. Crushed mussel shell 25 cm BS, too dense to probe deeper.
7. Bark-stripped hemlock tree. 55 cm DBH, scar length 90 cm, scar base height 90 cm. Second strip on back of tree sealed closed, 90 cm long, base height 40 cm.
8. Bark-stripped Douglas-fir tree. 170 cm DBH, regenerated bark in area 109 cm long, base height 160 cm.
9. Bark-stripped hemlock tree.
10. Shovel Test. 0-25 cm BS, culturally sterile.
25-35 cm BS, large fragments of large barnacle, many unmodified beach

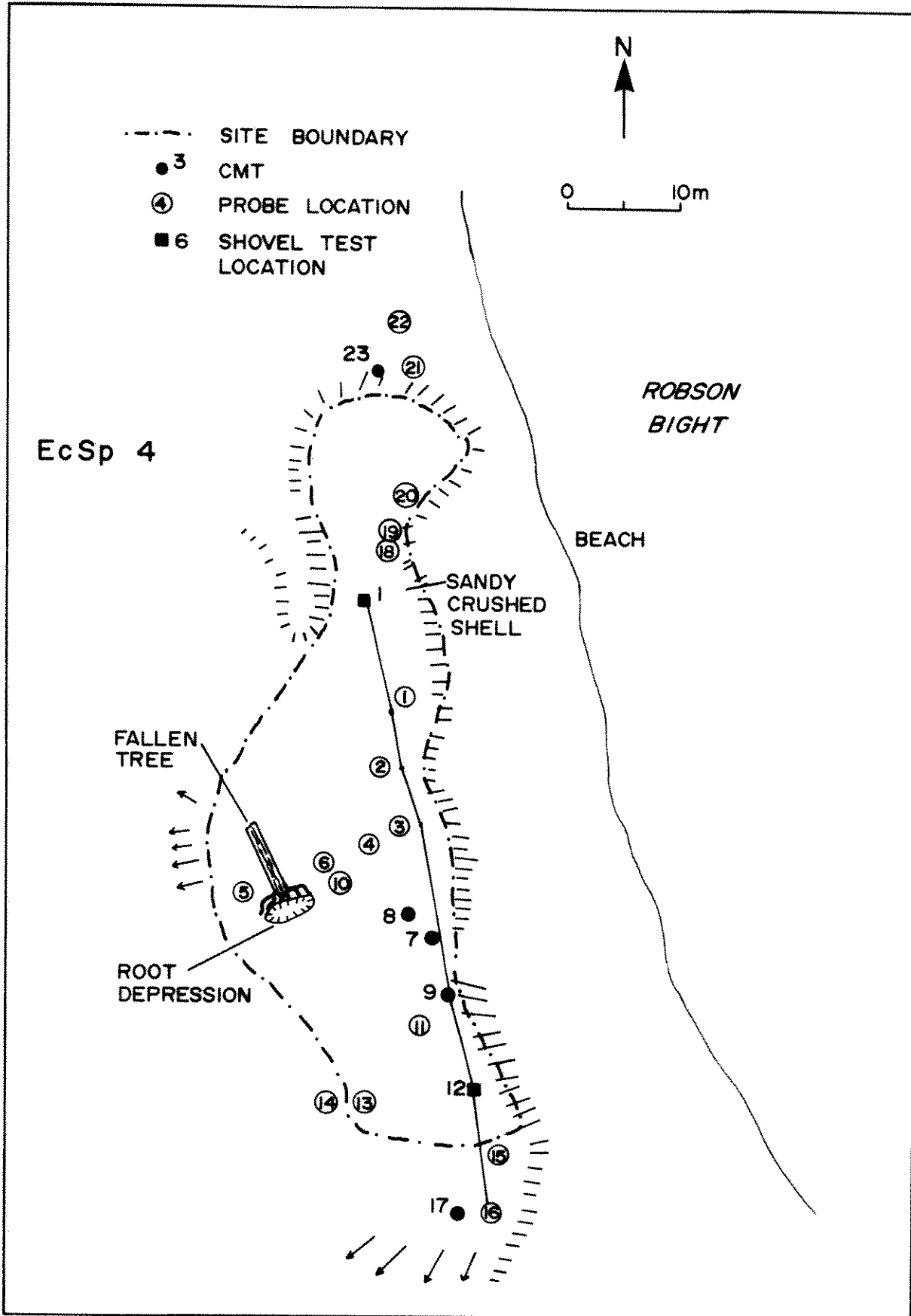
cobbles.

35-75 cm BS, very finely crushed and burnt bay mussel shell, mixed with ash, probably hearth or house floor feature.

75+ cm BS, culturally sterile beach sands.

11. Probe. Culturally sterile sand.
12. Shovel Test. 0-25 cm, culturally sterile light brown coarse sand.
Lens at top of shell midden burnt fish bone in ash.
25-ca. 50 Mostly barnacle, some littleneck and butter clam, chiton, bay mussel. Fire altered rock in large quantities.
13. Probe 0-40 cm BS, culturally sterile light brown coarse sand.
40-55 cm BS, sand with very finely crushed shell, ash, charcoal.
55+ cm BS, culturally sterile light brown coarse sand.
14. Probe. Culturally sterile light brown coarse sand.
15. Probe. Ashy sand with a trace of shell above culturally sterile light brown coarse sand. Edge of site.
16. Probe. Culturally sterile light brown coarse sand.
17. Bark-stripped hemlock tree. 35 cm DBH, rectangular scar 110 cm long, scar base height 70 cm.
18. Probe. 0-35 cm, Culturally sterile.
30-35 cm BS, very finely crushed shell and charcoal in black greasy loam, possible house floor deposit.
19. Probe. 20 cm - ? finely crushed shell in black greasy matrix, too dense to probe deeper.
20. Probe. 0-2 cm culturally sterile sand.
2-20 cm, black greasy sand matrix with a trace of shell.
21. Probe. Culturally sterile.
22. Probe. Culturally sterile. Lower elevation than site.
23. Bark-stripped hemlock tree. 3 rectangular scars. A) base, length unclear, could not determine; B) length 70 cm, base height 70 cm; C) length 60 cm, base height 50 cm. Bark-stripped hemlock and Douglas-fir continue off-site

site map



MAP: 092L/07

SITE No.: EcSp-5

BRITISH COLUMBIA ARCHAEOLOGICAL SITE FORM

IDENTIFICATION

1. **Borden No.:** EcSp-5 2. **Temp. No.:** EcSp-T5
3. **Site Name:** Unknown

LOCATION

4. **Location:** In Ecological Reserve #111, Robson Bight. On the eastern point of a small cove where an unnamed creek debouches into Johnstone Strait, 1.5 km east of the point marking the eastern edge of Robson Bight itself.
5. **Access:** By boat from Telegraph Cove, 11 nautical miles east down Johnstone Strait to the mouth of the unnamed creek. Land on beach at eastern edge of fan. Site is directly behind beach.
6. **Latitude:** 50 29' 11" 7. **Longitude:** 126 32' 42"
8. **UTM:** 09U XF 742 E 953.5 N 9. **Air Photo:** Unknown
10. **Map:** 092L-07 11. **Other Map:** M&B 1:5,000 92L.048.3.4
12. **Legal Description:** Robson Bight Ecological Reserve #111.
13. **Legal Status:** Robson Bight Ecological Reserve #111.
14. **Owner:** Crown.
15. **Municipality:**
16. **Regional District:** Mount Waddington
17. **Ethnolinguistic Area:** Kwakiutl, Southern Kwakiutl.
18. **Site Type:** Cultural material, subsurface, shell midden;
19. **Site Dimensions:** L: 8 m W: 5 m
20. **Cultural Strata:** Shell midden composed of crushed unburnt butter and littleneck clam, barnacle, and bay mussel in a black greasy matrix resting directly on angular pea gravel and overlain by 20 cm duff.
21. **Depth of Cultural Strata:** Max: 5 cm Min: Trace Med: 3 cm
22. **Non-cultural Strata:** top forest duff 20 cm deep; bottom angular pea gravel.
23. **Archaeological Culture:** Unknown
24. **Dates:** Unknown

25. **Features:**
26. **Present Condition:** 1988: intact.
27. **Future Condition:** Protected by ecological reserve status.

ENVIRONMENT

28. **Vegetation Zone:** Coastal Western Hemlock.
29. **Site Vegetation:** stand of second growth western hemlock and western red cedar up to 1 m dbh, salal, deer fern, mosses. Many hand-logged stumps on site & vicinity.
30. **Drainage:** 16. N. Vancouver Is.
31. **Landforms:** 1. Creek fan margin.
32. **Elevation:** 5 m ASL.

INVESTIGATIONS AND COLLECTIONS

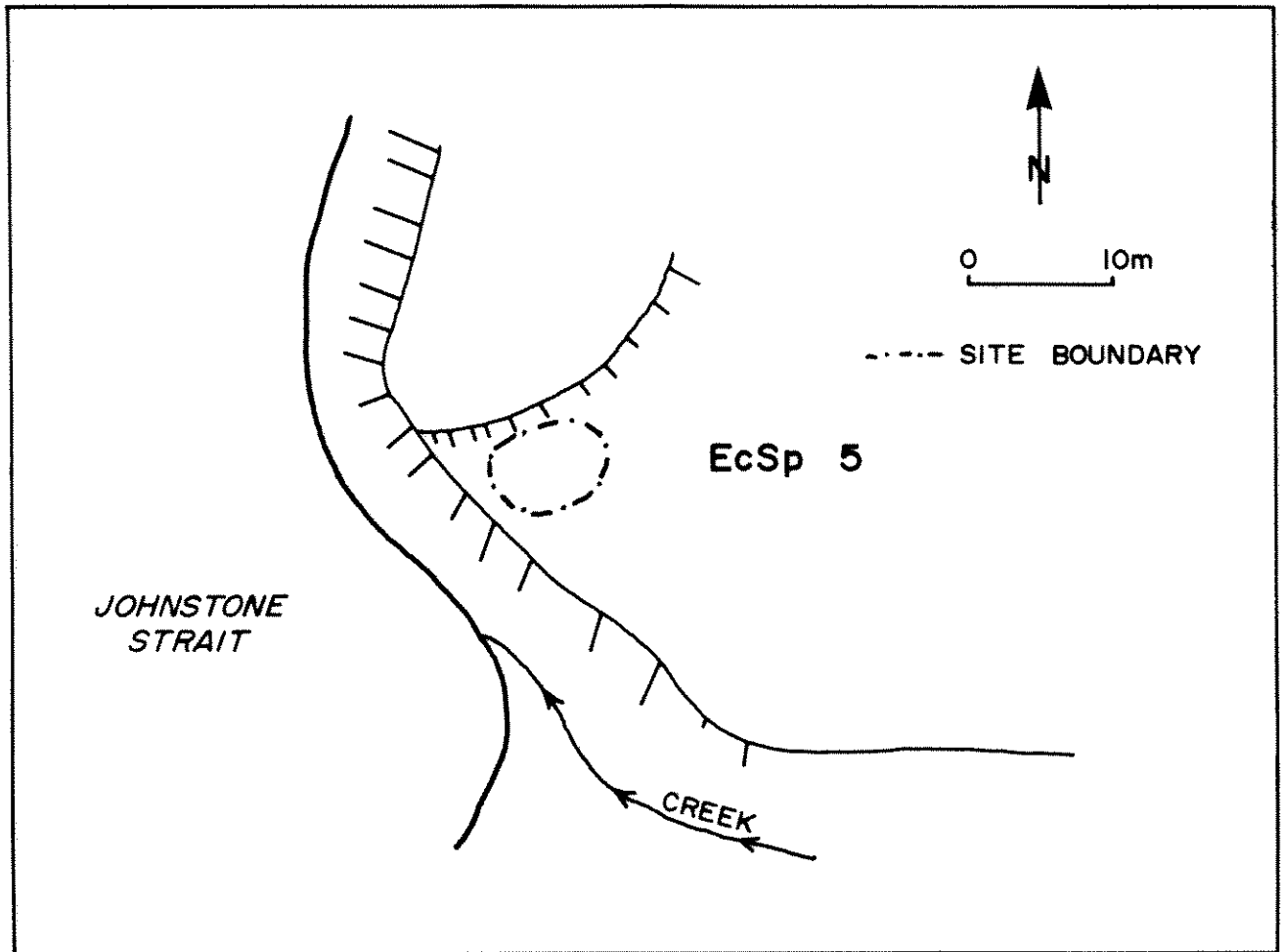
33. **Collector:** Not applicable.
34. **Excavator:** Not applicable.
35. **Significant Artifacts:** None.
36. **Collections:** None.
37. **Photo Record:** Millennia Research R.B. 88 Roll 3
38. **Published References:** None.
39. **Unpublished References:** Eldridge, Morley and Sandra Zacharias 1988, "Robson Bight Archaeological Resource Inventory". Mss on file with the Archaeology and Outdoor Recreation Branch, Permit 88-85.
40. **Informant:** Unknown.
41. **Observer:** Eldridge, Morley; Sandra Zacharias; (Millennia Research).
Date: 19881019
- Recorder:** Eldridge, Morley (Millennia Research) **Date** 19881102
- Revisitor:** Not applicable.
- Tester:** Eldridge, M. (Millenia Research). **Date:** 19881011

42. **Remarks:** This site is located on slightly raised ground on the western side of a small point. A higher terrace forms the point itself. This location provides a lee for southeast winds, although the degree of shelter is limited. The angle between the point and the small bight is a sharp enough to provide a reasonably surf-free canoe landing beach during southeasterly winds.

Canoes would have to be pulled right up the bank onto the terrace during a storm.

This site appears to be the remains of a very short term camp.

site map



MAP: 092L/07

SITE No.: EcSp-6

BRITISH COLUMBIA ARCHAEOLOGICAL SITE FORM

IDENTIFICATION

1. Borden No.: EcSp-6 2. Temp. No.: EcSp-T6
3. Site Name: Unknown

LOCATION

4. Location: In Ecological Reserve #111, Robson Bight, Johnstone Strait. There are two old telegraph lines. Both extend east-west through the Reserve. The eastern and western limits of remains, outside the reserve, are unknown at this time. The larger, six-wire line is clearly marked on the 1:50,000 map as a dashed line that follows the coastline, up to 400 m. inland. Remnants of a smaller, single-wire line (not marked on the 1:50,000) follow the shoreline at the vegetation edge, mainly along the west side of the Bight.

5. Access: By boat from Telegraph Cove, 10 nautical miles east up Johnstone Strait to Robson Bight. To find the six-wire line, leave the boat at any beach within the reserve, and walk inland the distance indicated on the 1:50,000 map. The line is located along a 10 m. wide logged clearing, now mostly overgrown with salmonberry. Intact standing or fallen poles are found in most areas. To locate remnants of the single-wire line, follow the shoreline on the west side of the Bight. Wooden threaded pegs for insulators are affixed to trees at intervals along the rocky shoreline.

6. Latitude: 50 28' 45" 7. Longitude: 126 35' 20"

8. UTM: 09U XF 710 E 946 N 9. Air Photo: 23563-11

10. Map: 092L-07 11. Other Map: M&B 1:5000

12. Legal Description: DL 223

13. Legal Status: Ecological Reserve #111

14. Owner: Crown

15. Municipality:

16. Regional District: Mount Waddington

17. Ethnolinguistic Area: Not applicable.

18. Site Type: Historic, telegraph line;

19. Site Dimensions: L: 10 km + W: 10 m

20. Cultural Strata: Not applicable.

21. Depth of Cultural Strata: Surface.

22. **Non-cultural Strata:** forest duff, humo-ferric podzols
23. **Archaeological Culture:** historic
24. **Dates:** 1911 **Source:** Healey, Elizabeth 1959. History of Alert Bay and District.
25. **Features:** telegraph posts and wires (see remarks)
26. **Present Condition:** 80% intact
27. **Future Condition:** Protected by ecological reserve status

ENVIRONMENT

28. **Vegetation Zone:** Coastal Western Hemlock
29. **Site Vegetation:** salal, salmonberry, mosses; young western hemlock, balsam fir
30. **Drainage:** 16. N. Vancouver Is.
31. **Landforms:**
32. **Elevation:** 1 - 200 m ASL.
33. **Collector:** Not applicable.
34. **Excavator:** Not applicable.
35. **Significant Artifacts:** None.
36. **Collections:** None.
37. **Photo Record:** Millennia Research R.B. 88 Roll 1 ***
38. **Published References:** Healey, Elizabeth 1959. History of Alert Bay and District.
39. **Unpublished References:** Eldridge, Morley and Sandra Zacharias 1988, "Robson Bight Heritage Resource Inventory". Mss on file with the Heritage Conservation Branch, Permit 88-85.
40. **Informant:** Not applicable.
41. **Observer:** Eldridge, Morley; Sandra Zacharias (Millennia Research).
Date: 19881001
Recorder: Zacharias, Sandra (Millennia Research) **Date:** 19881108
Revisitor: Not applicable.
Tester: Not applicable.

42. **Remarks:** Although contemporary histories refer to only one telegraph line built through this area, two telegraph lines were found. The larger has six strands of 4 mm thick copper wire and colourless Dominion glass insulators made in a 3-piece mold. The peeled poles are uniform in diameter (ca. 25 cm), but vary from about 2.5 to ca. 6 m in height. The wooden cross-pieces are supported by galvanized bars and guy-wires, and have upright wooden threaded pegs for each insulator. At higher elevations this line is largely intact, except for occasional fallen poles. Close to most easily accessible beaches, the copper wire has been salvaged (shortly after WW II?) and the insulators taken.

The smaller telegraph line, which follows the shoreline, has a single strand of slightly thicker copper wire (ca. 5.5 mm), and white or brown glazed ceramic insulators. Wooden pegs are affixed to large trees (3 m or less above ground height) along the shoreline. It is only found inland at the eastern point of Robson Bight, where it shortcuts across the point at UTM 725925. Only remnants of this line are visible. Many of the ceramic insulators have been removed. This may be an earlier, possibly temporary telegraph line built during construction of the main line.

According to Healey's History of Alert Bay, the Dominion Government built a telephone-telegraph line from Campbell River north to Port Hardy and Port Alice in 1911-12. A linesman's station was established at Telegraph Cove. The telegraph line was built by a Mr. Porter, who in 1959 resided near Ladysmith.

APPENDIX 2. CULTURALLY MODIFIED TREE DATA.

ROBSON BIGHT ECOLOGICAL RESERVE CMTs

Length of Transects									
Transect	0-100	100-200	200-300	300-400	400-500	500-600	600-700	>700	Total
1	100	20	0	0	0	0	0	0	120
1-2	0	110	0	0	0	0	0	0	110
2	100	55	0	0	0	0	0	0	155
3	100	100	0	0	0	0	0	0	200
4	100	100	100	20	0	0	0	0	320
4-5	0	0	0	115	0	0	0	0	115
5	100	100	100	65	0	0	0	0	365
6	105	110	105	100	125	20	0	0	565
6-7	0	0	0	0	70	30	0	0	100
7	115	110	125	105	90	0	0	0	545
8	140	120	100	100	120	105	105	715	1505
9	250	130	70	0	0	0	0	0	450
10	110	100	100	0	0	0	0	0	310
10-11	0	0	100	0	0	0	0	0	100
11	125	100	110	0	0	0	0	0	335
12	0	725	110	100	100	110	15	0	1160
12-13	0	0	0	0	0	0	110	0	110
13	100	105	130	175	150	100	30	0	790
14	0	0	0	100	400	275	0	0	775
TOTAL	1445	1985	1150	880	1055	640	260	715	8130
Hectare	2.9	4.0	2.3	1.8	2.1	1.3	0.5	1.4	16.3

Red Cedar Bark-strip Scars

Transect	0-100	100-200	200-300	300-400	400-500	500-600	600-700	>700	Total
1	--	--	--	--	--	--	--	--	0
1-2	--	--	--	--	--	--	--	--	0
2	--	--	--	--	--	--	--	--	0
3	1	3	--	--	--	--	--	--	4
4	1	--	--	--	--	--	--	--	1
4-5	--	--	--	2	--	--	--	--	2
5	4	--	--	--	--	--	--	--	4
6	--	--	--	3	6	--	--	--	9
6-7	--	--	--	--	--	1	--	--	1
7	--	--	--	--	--	--	--	--	0
8	--	--	--	--	--	--	--	--	0
9	--	--	--	--	--	--	--	--	0
10	--	--	--	--	--	--	--	--	0
10-11	--	--	--	--	--	--	--	--	0
11	--	--	--	--	--	--	--	--	0
12	--	6	--	--	--	--	--	--	6
12-13	--	--	--	--	--	--	--	--	0
13	2	1	--	--	--	--	--	--	3
14	--	--	--	--	--	--	--	--	0
Total	8	10	0	5	6	1	0	0	30
Density	2.8	2.5	0.0	2.8	2.8	0.8	0.0	0.0	1.8
(Scarred Trees per Hectare)									

Red Cedar Bark-strip Trees

Transect	0-100	100-200	200-300	300-400	400-500	500-600	600-700	>700	Total
1	--	--	--	--	--	--	--	--	0
1-2	--	--	--	--	--	--	--	--	0
2	--	--	--	--	--	--	--	--	0
3	1	2	--	--	--	--	--	--	3
4	1	--	--	--	--	--	--	--	1
4-5	--	--	--	2	--	--	--	--	2
5	2	--	--	--	--	--	--	--	2
6	--	--	--	1	2	--	--	--	3
6-7	--	--	--	--	--	1	--	--	1
7	--	--	--	--	--	--	--	--	0
8	--	--	--	--	--	--	--	--	0
9	--	--	--	--	--	--	--	--	0
10	--	--	--	--	--	--	--	--	0
10-11	--	--	--	--	--	--	--	--	0
11	--	--	--	--	--	--	--	--	0
12	--	6	--	--	--	--	--	--	6
12-13	--	--	--	--	--	--	--	--	0
13	2	1	--	--	--	--	--	--	3
14	--	--	--	--	--	--	--	--	0
Total	6	9	0	3	2	1	0	0	21
Density	2.1	2.3	0.0	1.7	0.9	0.8	0.0	0.0	1.3
(Trees per Hectare)									

Yellow Cedar Bark-stripped Trees

Transect	0-100	100-200	200-300	300-400	400-500	500-600	600-700	>700	Total
1	--	--	--	--	--	--	--	--	0
1-2	--	--	--	--	--	--	--	--	0
2	--	--	--	--	--	--	--	--	0
3	--	--	--	--	--	--	--	--	0
4	--	--	6	2	--	--	--	--	8
4-5	--	--	--	--	--	--	--	--	0
5	--	--	--	--	--	--	--	--	0
6	--	--	--	--	--	--	--	--	0
6-7	--	--	--	--	--	--	--	--	0
7	--	--	--	--	--	--	--	--	0
8	--	--	--	--	--	--	--	--	0
9	--	--	--	--	--	--	--	--	0
10	--	--	8	--	--	--	--	--	8
10-11	--	--	4	--	--	--	--	--	4
11	--	--	--	--	--	--	--	--	0
12	--	--	--	--	--	--	--	--	0
12-13	--	--	--	--	--	--	--	--	0
13	--	--	2	--	--	--	--	--	2
14	--	--	--	2	8	14	--	--	24
(Includes one rectangular bark-stripped tree on Transect 10)									
Total	0	0	20	4	8	14	0	0	46
Density	0.0	0.0	8.7	2.3	3.8	10.9	0.0	0.0	2.8
(Scarred Trees per Hectare)									

Hemlock Bark-stripped Trees

Transect	0-100	100-200	200-300	300-400	400-500	500-600	600-700	>700	Total
1	--	--	--	--	--	--	--	--	0
1-2	--	--	--	--	--	--	--	--	0
2	--	--	--	--	--	--	--	--	0
3	--	--	--	--	--	--	--	--	0
4	--	--	--	--	--	--	--	--	0
4-5	--	--	--	--	--	--	--	--	0
5	--	--	--	--	--	--	--	--	0
6	3	--	--	--	--	--	--	--	3
6-7	--	--	--	--	--	--	--	--	0
7	2	--	--	--	--	--	--	--	2
8	--	--	--	--	--	--	--	--	0
9	--	--	--	--	--	--	--	--	0
10	--	--	--	--	--	--	--	--	0
10-11	--	--	--	--	--	--	--	--	0
11	--	--	--	--	--	--	--	--	0
12	--	--	--	--	--	--	--	--	0
12-13	--	--	--	--	--	--	--	--	0
13	--	--	--	--	--	--	--	--	0
14	--	--	--	--	--	--	--	--	0
Total	5	0	0	0	0	0	0	0	5
Density	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
(Trees per hectare)									

Aboriginally-logged Trees, Count

Transect	0-100	100-200	200-300	300-400	400-500	500-600	600-700	>700	Total
1	--	--	--	--	--	--	--	--	0
1-2	--	--	--	--	--	--	--	--	0
2	--	--	--	--	--	--	--	--	0
3	--	--	--	--	--	--	--	--	0
4	2	--	--	--	--	--	--	--	2
4-5	--	--	--	--	--	--	--	--	0
5	--	--	--	--	--	--	--	--	0
6	--	--	--	--	--	--	--	--	0
6-7	--	--	--	--	--	--	--	--	0
7	--	--	--	--	--	--	--	--	0
8	--	--	--	--	--	--	--	--	0
9	--	--	--	--	--	--	--	--	0
10	1	--	--	--	--	--	--	--	1
10-11	--	--	--	--	--	--	--	--	0
11	--	--	--	--	--	--	--	--	0
12	--	--	--	--	--	--	--	--	0
12-13	--	--	--	--	--	--	--	--	0
13	--	--	--	--	--	--	--	--	0
14	--	--	--	--	--	--	--	--	0
Total	3	0	0	0	0	0	0	0	3
Density	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
(Trees per Hectare)									

Total number of CMTs

Transect	0-100	100-200	200-300	300-400	400-500	500-600	600-700	>700	Total
1	0	0	0	0	0	0	0	0	0
1-2	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0
3	1	2	0	0	0	0	0	0	3
4	3	0	6	2	0	0	0	0	11
4-5	0	0	0	2	0	0	0	0	2
5	2	0	0	0	0	0	0	0	2
6	3	0	0	1	2	0	0	0	6
6-7	0	0	0	0	0	1	0	0	1
7	2	0	0	0	0	0	0	0	2
8	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0
10	1	0	8	0	0	0	0	0	9
10-11	0	0	4	0	0	0	0	0	4
11	0	0	0	0	0	0	0	0	0
12	0	6	0	0	0	0	0	0	6
12-13	0	0	0	0	0	0	0	0	0
13	2	1	2	0	0	0	0	0	5
14	0	0	0	2	8	14	0	0	24
Total	14	9	20	7	10	15	0	0	75
Density (CMTs per Hectare)	4.8	2.3	8.7	4.0	4.7	11.7	0.0	0.0	4.6

Length of Transect	Transects by Stand Type					Total
	Hemlock	Hemlock	Cedar	Cypress	Alder/ Scrub	
	No Cedar >150 years	No Cedar <150 years	Major Species	Major Species		
1	--	--	120	--	--	120
1-2	--	--	15	--	95	110
2	--	--	115	--	40	155
3	--	--	200	--	--	200
4	50	--	280	--	--	330
4-5	50	--	65	--	--	115
5	--	--	365	--	--	365
6	565	--	--	--	--	565
6-7	100	--	--	--	--	100
7	545	--	--	--	--	545
8	1500	--	--	--	--	1500
9	--	--	--	--	450	450
10	--	150	160	--	--	310
10-11	--	--	100	--	--	100
11	--	100	235	--	--	335
12	--	430	695	--	45	1170
12-13	--	--	110	--	--	110
13	--	90	700	--	--	790
14	--	75	575	125	--	775
Total	2810	845	3735	125	630	8145
Hectares	5.6	1.7	7.5	0.3	1.3	16.3

Red Cedar Transect	Bark-stripped Trees					Total
	Hemlock	Hemlock	Cedar	Cypress	Alder/ Scrub	
	No Cedar >150 years	No Cedar <150 years	Major Species	Major Species		
1	--	--	--	--	--	0
1-2	--	--	--	--	--	0
2	--	--	--	--	--	0
3	--	--	3	--	--	3
4	--	--	1	--	--	1
4-5	--	--	2	--	--	2
5	--	--	2	--	--	2
6	3	--	--	--	--	3
6-7	1	--	--	--	--	1
7	--	--	--	--	--	0
8	--	--	--	--	--	0
9	--	--	--	--	--	0
10	--	--	--	--	--	0
10-11	--	--	--	--	--	0
11	--	--	--	--	--	0
12	--	--	6	--	--	6
12-13	--	--	--	--	--	0
13	--	2	1	--	--	3
14	--	--	--	--	--	0
Total	4	2	15	0	0	21
Trees per Hectare	0.7	1.2	2.0	0.0	0.0	1.3

Yellow Cedar (Cypress) Bark-stripped Trees

Transect	Hemlock No Cedar >150 years	Hemlock No Cedar <150 years	Cedar Major Species	Cypress Major Species	Alder/ Scrub	Total
1	--	--	--	--	--	0
1-2	--	--	--	--	--	0
2	--	--	--	--	--	0
3	--	--	--	--	--	0
4	8	--	--	--	--	8
4-5	--	--	--	--	--	0
5	--	--	--	--	--	0
6	--	--	--	--	--	0
6-7	--	--	--	--	--	0
7	--	--	--	--	--	0
8	--	--	--	--	--	0
9	--	--	--	--	--	0
10	--	--	8	--	--	8
10-11	--	--	4	--	--	4
11	--	--	--	--	--	0
12	--	--	--	--	--	0
12-13	--	--	--	--	--	0
13	--	--	2	--	--	2
14	--	--	10	14	--	24
Total	8	0	24	14	0	46
Trees per Hectare	1.4	0.0	3.2	56.0	0.0	2.8

Hemlock Bark-stripped Trees

Transect	Hemlock No Cedar >150 years	Hemlock No Cedar <150 years	Cedar Major Species	Cypress Major Species	Alder/ Scrub	Total
1	--	--	--	--	--	0
1-2	--	--	--	--	--	0
2	--	--	--	--	--	0
3	--	--	--	--	--	0
4	--	--	--	--	--	0
4-5	--	--	--	--	--	0
5	--	--	--	--	--	0
6	3	--	--	--	--	3
6-7	--	--	--	--	--	0
7	2	--	--	--	--	2
8	--	--	--	--	--	0
9	--	--	--	--	--	0
10	--	--	--	--	--	0
10-11	--	--	--	--	--	0
11	--	--	--	--	--	0
12	--	--	--	--	--	0
12-13	--	--	--	--	--	0
13	--	--	--	--	--	0
14	--	--	--	--	--	0
Total	5	0	0	0	0	5
Trees per Hectare	0.9	0.0	0.0	0.0	0.0	0.3

APPENDIX 3

THE INDIAN HISTORY
OF THE ROBSON BIGHT AREA

Prepared for:
MILLENNIA RESEARCH
and the
ARCHAEOLOGY AND OUTDOOR RECREATION BRANCH
BRITISH COLUMBIA MINISTRY OF MUNICIPAL AFFAIRS,
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December 2nd, 1988

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Several Indian people have shared their knowledge and generous hospitality with us in connection with this project. In particular, we thank Cecil Wadhams Sr., and Chief Charlie Matilpi of Alert Bay. Margaret Cook of Alert Bay also assisted us, as did Maggie Frank (formerly from Fort Rupert) and her daughter, Mary Everson, both living at Comox. Eleanor Moon from Comox, as well as Willie Hunt and Helen Knox from Fort Rupert. Additional assistance was provided by Medric Wadhams of Alert Bay, by Peter Knox of Fort Rupert, and by Jack Peter, also of Alert Bay.

We are also grateful for the assistance provided to us by two colleagues who have conducted research in this same region--Dr. Jay Powell of Vancouver and Mrs. Joy Inglis of Quadra Island.

Mary Jane Commanda of the Federal Archives Division, Public Archives of Canada, Ottawa, and Stan Maber of the Surveyor General Branch, Ministry of Crown Lands, Victoria, assisted by providing us with specific information relating to lands at Robson Bight. Ian Baird of the University of Victoria Library's Microforms Division provided microfilm printout copies of Franz Boas and George Hunt correspondence. And Mike Chutter of the B.C. Fish and Wildlife Branch, Nanaimo Regional Office, provided information concerning traplines in the Robson Bight area.

INTRODUCTION

Research Objectives

This report presents the results of our research concerning the Indian utilization of Robson Bight. The four objectives of this research as outlined by Millennia Research were as follows:

1. to identify the Indian people who used and occupied Robson Bight and to determine any association of particular sites and resource use areas with identifiable kingroups or individuals;
2. to corroborate archaeological evidence of the Native use and occupancy of Robson Bight, with a view of determining the seasonality and time depth of any utilization of this area;
3. to determine if there was any Native recognition of the association of Robson Bight with killer whales;
4. to obtain Native place names within and adjacent to Robson Bight and to record the Indian use of, or association with, these places.

Study Schedule and Methodology

We began this study with a field trip between September 30th-October 3rd, 1988. Because we already had on file a large collection of published and unpublished materials relating to the kwakwala-speaking tribes, and already had some familiarity with these data, we only undertook a minimal review of this literature before going into the field. Our literature search indicated that Robson Bight in ancient times was associated with one of the Fort Rupert

tribes. Thus we decided to begin by interviewing Fort Rupert Indian people. We already knew Mrs. Maggie Frank, a knowledgeable, elderly Fort Rupert woman living at Comox.

On our way to Comox we stopped at the B.C. Fish and Wildlife Branch in Nanaimo where we found out there was an Indian trapline at Robson Bight that was registered in the name of Medric Wadhams of Alert Bay. This provided us with another lead.

We conducted a brief interview with Maggie Frank on October 1st. Her daughter, Mary Everson, and Mrs. Frank's friend, Eleanor Moon, both of whom we had previously met, assisted by acting as translators.

After the interview, Maggie Frank suggested that we should also talk with her sister, Mrs. Helen Knox, at Fort Rupert, and with Mrs. Margaret Cook at Alert Bay. On October 2nd, we interviewed Margaret Cook. She suggested we should talk as well with Charlie Matilpi who also lives at Alert Bay, but we were unable to contact him at that time. Later that same day we went to Fort Rupert. Mrs. Knox was not home, but one of her grandsons, Peter Knox, introduced us to Willie Hunt, who we then interviewed.

Also on October 2nd we contacted Medric Wadhams at Alert Bay and he agreed to meet with us. He suggested we should also talk to his older brother, Cecil Wadhams, Senior, who was much more familiar with the Robson Bight area. So on October 3rd, we interviewed Cecil and Medric Wadhams together.

Our second field trip was between October 14th-17th, 1988. We began by interviewing Maggie Frank again at Comox on October 14th. The next day we went to Alert Bay where, with the assistance of Cecil Wadhams, Senior, we met Chief Charlie Matilpi for the first time.

After we explained our research interests to Mr. Matilpi, he asked us specifically to record all the Matilpi place names that he knew, and to provide him with a copy of a list and map of these names. Consequently we did record all these place names, and provided Charlie Matilpi and Cecil Wadhams with typed copies of them, along with accompanying maps. Mr. Matilpi agreed to the inclusion of these Matilpi place names in this present report.

Our interviews with Chief Charlie Matilpi were conducted jointly with, and at the home of Cecil Wadhams, Senior on October 15th, 16th and 17th. Charlie Matilpi conducted a brief interview of Jack Peter at Alert Bay, on our behalf, on October 16th, in order to check several specific points. We did not meet Mr. Peter, ourselves. We concluded this second field trip with a brief interview of Mrs. Helen Knox at Fort Rupert on October 17th.

While in the field, we employed standard ethnographic and linguistic interviewing techniques. We were very careful in using the literature to re-elicite information from the people we interviewed. The cautious use of archival materials was pertinent in our interviews because details of the earliest Indian history of Robson Bight, as they had been recorded many years ago by anthropologist Franz Boas and his Native Fort Rupert colleague, George Hunt, were not known to the Indian people we interviewed.

Additional archival research we undertook as part of this project consisted of reviewing the extensive correspondence of 1894-1932 between Franz Boas and George Hunt (a complete microfilm copy of which is held by the University of Victoria Library), and examining early census data and some local historical files at the Provincial Archives of B.C. This archival research was undertaken sporadically between October 4th-28th, 1988.

Previous Research In This Area By the Authors

There are very few references to Robson Bight in the voluminous ethnographic and ethnohistoric literature relating to the kwakwala-speaking tribes. And to the best of our knowledge, no other recent studies have been undertaken of the Indian use of Robson Bight.

Contemporary ethnographic research relating to several of the kwakwala-speaking tribes has been conducted under the auspices of the U'mista Cultural Society in Alert Bay, the Royal British Columbia Museum in Victoria, the Campbell River School District, and the Campbell River Museum and Archives. But we do not know to what extent any of this research has included more than an incidental reference to Robson Bight.

Our own interest in this general area began in 1971-1973. During this time we had extensive discussions about the kwakwala language, and about aspects of the ethnography of several kwakwala-speaking tribes, with linguist David Grubb in Victoria. In 1972, Grubb adapted to the kwakwala language, the practical orthography that Bouchard had developed and proposed for other Northwest Coast and Plateau languages early in 1969-1970 (see Grubb 1972; 1977). This same writing system was revised slightly in the late 1970s under the auspices of the U'mista Cultural Society (Powell et al. 1981; Ham 1980:27). (In the present report, we will utilize the Grubb/Bouchard version of this writing system, with one exception--the kwakwala vowel /ɛ / will be represented here orthographically as "i" rather than "eh" as suggested by Grubb in 1977).

Throughout 1976-1981, as part of our broader studies of Salishan cultures and languages, we conducted a limited amount of ethnographic and linguistic research with several of the kwakwala-speaking tribes. In particular, we were interested in the relationship between the

Lekwiltok and the Island Comox. The Lekwiltok are a group of kwakwala-speaking sub-tribes now living in the Campbell River and Cape Mudge area but whose original home was further north. The Island Comox are a Salishan group whose few descendants now live in Comox, but whose original territory extended from Salmon River to Kye Bay (see Kennedy and Bouchard 1983:16-17, and Kennedy and Bouchard: In press).

The kwakwala-speaking people with whom we conducted research between 1976-1981 included Mrs. Mary Clifton of Comox (who also speaks Island Comox), the late Mrs. Lucy Hovell of Cape Mudge (a Lekwiltok woman who was originally from Salmon River), and the late Jim Henderson of Campbell River (who was originally from Blunden Harbour). Most of our research with these people remains unpublished (Bouchard 1976; 1978a).

Problems With Place Names Data

One of the above-mentioned interviews conducted by Bouchard in 1978 with the late Jim Henderson concerned Matilpi Indian place names (Bouchard 1978b). As our research for the present report has shown, the Matilpi are a kwakwala-speaking tribe whose territory is said to include Robson Bight. Mr. Henderson had some familiarity with Matilpi place names because his wife was the sister of Billy Matilpi, who was the father of Chief Charlie Matilpi, and Henderson had spent a lot of time with his brother-in-law.

During the above-mentioned interview with Jim Henderson, Franz Boas' 1934 publication, Geographical Names of the Kwakiutl Indians, was utilized to re-elicite Matilpi place names. This was the first time we had made such use of this study. The results were frustrating--Mr. Henderson recognized only 7% of the Matilpi place names that Bouchard attempted to re-elicite from the data compiled by George Hunt.

Problems with the 1934 Boas-Hunt place names became more apparent when we considered the place names data provided by Chief Charlie Matilpi in connection with our present study. This time we did not use the Hunt data to re-elicite the Matilpi place names, as Chief Matilpi has an outstanding knowlege of these place names. But we did use the Hunt data to cross-check the names that Charlie Matilpi knew. The results were interesting.

A total of 158 Matilpi place names were known between George Hunt and Chief Charlie Matilpi. Only 26 of these names, representing about 17% of the total, were known both to Charlie Matilpi and to George Hunt (of these 26, they disagreed on the location of 4 places, but agreed on the names, themselves). Mr. Matilpi knew 65 names that were not recorded by Mr. Hunt, and Hunt recorded 53 names that were not known to Charlie Matilpi. An additional 14 sites identified by Chief Matilpi were identified with different names by George Hunt.

It is difficult to determine why such differences exist in these two sets of data. On the one hand, we realize that a lot of traditional knowledge has been lost since 1918-1919 when Hunt recorded most of these Matilpi names. On the other hand, we know from many years of experience that place names tend to be retained for a very long period of time, even when other ethnographic information becomes very fragmented. And there is no doubt whatsoever that Chief Matilpi has an outstanding knowledge of these place names. Thus, we feel there should not have been such a large discrepancy between these two data sets.

Unfortunately, neither in the Boas-Hunt correspondence nor in their published work is information provided as to who provided the place names for each of the tribes' territories. However, this correspondence does provide at least some insights into the problems encountered by Hunt, and into the process by which these place names

data were transmitted. For example, on March 29th, 1918, Hunt sent an installment of place names data to Boas (it is not clear which area these names were from) and stated:

...its Hard on my Head to Remember all these [place] names which is nearly four Hundred altogether, if I was to put them all Down I think it would come close to seven Hundred the names of all these places (Hunt 1918b).

Several months later, on September 17th, 1918, Boas asked Hunt:

I have also wanted to ask you about the meaning of the Indian names which you give. Do you get these meanings from the old people, or do you translate them from your own knowledge of the language? As you know there are quite often names which may be interpreted in different ways, and I should like to know whether what you give me is the opinion of the Indians or your own opinion (Boas 1918).

Hunt's reply to this question was made on September 28th, 1918:

Now about the Indian [place] names I do ask some of my old Friends the meaning of these names, and most the time there answer, comes right to my translating it and some time I ask another old man, then some times he comes little Different from the other, that is why some times you will find some of the name is translated Different from the other...and if I am not pleased the way they translate the names then I translate them the way I

see it Right way to Put it, for it is not so Hard
for me (Hunt 1918c).

We are lead to the inescapable conclusion that for those areas
with which Hunt was not himself personally familiar, within the overall
territory of the kwakwala-speaking tribes, his place names information
should be carefully reconsidered. We say this not as a criticism of
George Hunt. Indeed, we have the very highest respect for the
monumental contributions of George Hunt to Northwest Coast scholarship.

LINGUISTIC AND ETHNIC AFFILIATIONS
OF INDIANS UTILIZING THE ROBSON BIGHT AREA

Kwakwala, Kwakiutl, And "Kwakwaka'wakw"

Robson Bight falls within that portion of the eastern side of Vancouver Island which was used and occupied by Indian people speaking the kwakwala language. Kwakwala is classified as one of the languages comprising the North Wakashan subgroup of the Wakashan Language Family (Lincoln and Rath 1980:2). The Native name for this language is actually kwákw'ala, but the spelling "kwakwala" has recently come into common usage, so we will use this latter spelling in the present report.

Today kwakwala-speaking Indians reside in Native communities on Vancouver Island and the Mainland, and on the islands in between, extending from Comox in the south to Smith Sound in the north.

For well over one hundred years, speakers of kwakwala have been lumped together and referred to as "Kwakiutl" in the ethnographic and ethnohistoric literature. This has caused considerable confusion and misunderstandings. In fact, "Kwakiutl" is an anglicization of the kwakwala term kwágu7lh which refers only to the several sub-tribes known collectively as the Fort Rupert people. Kwágu7lh does not refer to any of the numerous other kwakwala-speaking tribes.

It is sometimes stated that the voluminous work of Franz Boas and George Hunt was responsible for the widespread use of the term "Kwakiutl" (see Powell et al. 1981:7). But several people had used this term, transcribed in numerous ways, before Boas began his research in 1930. For example, in May of 1840, James Douglas

of the Hudson's Bay Company wrote:

The Quakeeolth with some variations of dialect is the common language of all the Tribes between Point Chatham in Johnstons Straits and Milbank Sound...their national or general appellation I could not discover and I have therefore adopted that of Quakeeolth (Douglas 1840).

Almost 40 years later, when Indian Reserve Commissioner Gilbert Malcolm Sproat first visited the kwakwala-speaking tribes in 1879, he noted the following:

The group of Indians among whom...I am working, may be called the "Kwak-kewlth" group--the Kwah-kewlth tribe having been generally considered to be the leading tribe among the people. Their country is from below Cape Mudge up to Smith's Sound on the Mainland and including Quatsino Sound...The tribes...all speak the same language (Sproat 1879).

In an 1887 report, geologist and ethnographer George Dawson, after interviewing several kwakwala-speaking Indians in 1878 and 1885, wrote:

The people speaking dialects of the Kwakiool language...have, so far as I know, no general name of their own. Dialectic differences...are regarded by them as clearly separating tribe from tribe. The name "Kwakiool" has, however, by common consent, come to be employed to designate the whole, though strictly applicable to but two important tribes now inhabiting, with others, the vicinity of Fort Rupert (Dawson 1888:63).

But apparently there is a kwakwala term which refers collectively to all those people who speak this language. Franz Boas (1896:569; 1897:329) transcribed this term as "Kwákwakyewak^c" or "Kwā'kuak·éwak".

In a recent pedagogical work, this same word that Boas had earlier provided, was re-transcribed as "Kwakwaka'wakw" and it was explained that this was "a term that applied to all Kwakwala speakers, no matter which village they came from" (Powell et al. 1981:6-7).

Even more recently, a Native kwakwala-speaking anthropologist, Gloria Cranmer Webster (1988:80), commenting on the use of the word "Kwakwaka'wakw", stated: "...we use the name, as part of our efforts to educate the world that Kwagu'ł refers only to the people who live at Fort Rupert."

However, on the basis of our own limited experience working with kwakwala-speaking Indian people, including the people we interviewed for this present report, we can only say that the term "Kwakwaka'wakw" is not well known. While we accept that this word may have had widespread use in the past, it appears to be seldom used today.

Tribes and Numayms

Anthropologist Wilson Duff has provided a very useful, simplified explanation of the social composition of these kwakwala-speaking tribes:

The communities which we call "tribes" or "local tribes" were well-defined social and political units. Each was named, each had a definite

internal social structure, and each was associated with a certain locality. The "tribal" names often referred to the locality...[or] to a place of origin...[or to] a human ancestor...[or] to a mythical animal ancestor or crest...Each tribe was made up of a number (usually between four and six) of smaller social units...[called] "numayms". These were primarily kinship groups; in a sense, extended families...These were very important social units. Each [numaym] traced its descent from an original ancestor and place of origin...Each [numaym] owned its houses in the winter village, and its own seasonal camping spots, fishing places, and hunting and gathering areas...(Duff c.1960).

The term "numaym" referred to above is an anglicization of the kwakwala term *nemí³ma* which means 'one kind' (Boas 1966:38-41; Levine 1986:personal communication). A numaym could also be described as a descent group.

A total of twenty kwakwala-speaking tribes, comprised of almost one hundred numayms, were identified by Boas (1966:38-41) in his most recent description of "Kwakiutl" social organization.

In order to discuss the Indian history of Robson Bight, it is necessary to talk about a number of different kwakwala-speaking tribes: the Matilpi; the Tlawitsis; the Nimpkish; and the several sub-tribes referred to collectively as the *kwágu7lh* or Fort Rupert people.

Robson Bight and the Matilpi Tribe

It was the consensus of the Indian people we interviewed for this report that Robson Bight is within the territory of the Matilpi tribe. "Matilpi" is an anglicization of mádlhbi, the kwakwala name for this tribe. Margaret Cook, Cecil Wadhams, and Charlie Matilpi all pointed out that this same tribe is also known as ma7émtagi7la.

As is clearly indicated on the accompanying map of Matilpi place names, the location of Robson Bight with relation to the other sites utilized by the Matilpi is somewhat of an anomaly. By far the majority of the area used and occupied by the Matilpi tribe, as reflected in the concentrations of Matilpi place names, was centered on the Mainland a considerable distance east and slightly north from Robson Bight.

Most of the Matilpi place names known to Chief Charlie Matilpi are centered in the vicinity of Call Inlet, known locally as "Call Creek", and East Cracroft Island, with a lesser concentration at Port Neville. Mr. Matilpi pointed out that Port Harvey, between West and East Cracroft Islands, formerly belonged to another kwakwala-speaking tribe, the Lekwiltok--whose main territory was east from the Matilpi--but was obtained by the Matilpi from the Lekwiltok through marriage.

On Vancouver Island, there are a few Matilpi place names in the vicinity of St. Vincent Bight and around the Adam River, which Chief Matilpi referred to as the oldest home of the Matilpi tribe. But only one place name is known in the entire area between the Adam River and Robson Bight.

The kwakwala name for Robson Bight, ús7ekw, is the furthest-west Matilpi place name, according to Charlie Matilpi.

These same, above-mentioned concentrations of place names known to Mr. Matilpi are reflected on maps 11, 14, and 15 of the place names gathered by George Hunt and published under Franz Boas' name in 1934 as Geographical Names of the Kwakiutl Indians.

It was the consensus of the people we interviewed that the Matilpi have always been a distinct tribe. Charlie Matilpi, Cecil Wadhams Sr., and Margaret Cook all pointed out, however, that in earlier times, because the population of the Matilpi had dwindled, as had that of the Tlawitsis tribe who were their neighbours to the west, the Matilpi went to live together with the Tlawitsis at the latter tribe's village on Turnour Island. This occurred about 1890, according to the report of the Royal Commission on Indian Affairs (British Columbia 1916:II:386).

Our interviews gave us the clear impression that despite 100 years of amalgamation, the Matilpi and Tlawitsis have each maintained their own distinctive ethnic identities right up to and including the present day.

Chief Charlie Matilpi was able to name and rank three groups of the Matilpi: ma7émtagi7la, hamátem, and háyalikaway. Although neither Mr. Matilpi nor Mr. Wadhams, Senior appeared to be very familiar with the kwakwala term nemíma, there is no doubt that these three groups identified by Charlie Matilpi are in fact the Matilpi nemíma. Confirmation for this is found in Franz Boas' (1891:606;1966:39) work, where the first and third of these same terms now provided independently by Mr. Matilpi were also identified by Boas as the first and third-ranked Matilpi nemíma. Charlie Matilpi did not recognize the term "g·e'xsem" which Boas had stated was the second-ranked Matilpi nemíma. And Mr. Matilpi's term hamátem, which he identified as the second-ranked Matilpi nemíma, does not appear in Boas.

We could not determine if any of the three Matilpi groups (*nemíma*) named by Charlie Matilpi was associated with Robson Bight. But Mr. Matilpi did point out that all three of these Matilpi groups formerly wintered together either at *i7tsikn* near the mouth of Call Inlet, at *k'ák'axilis* in Port Harvey, at *híladi* at the mouth of the Adam River, or, after the amalgamation of the Matilpi with the Tlawitis tribe, at *kálugwis* on Turnour Island.

Boas (1887:130) initially listed the Matilpi as one of the kwakwala-speaking tribes. But in his 1890 listing of these tribes, he stated the Matilpi were "no separate tribe" but rather were part of the *kwágu7lh* who he said lived at "Fort Rupert, Turner Island, [and] Call Creek" (Boas 1891:605-606). In his 1897 study, Boas did not even list the Matilpi, and in his most recent study of "Kwakiutl" social organization, he listed the Matilpi as a "sub-sub-tribe" of one of the Fort Rupert tribes (Boas 1897:328-332; 1966:39).

However, none of the Indian people we interviewed were aware of any former association of the Matilpi with any of the Fort Rupert tribes. We would also point out, as Wilson Duff (c.1960) has noted, that the Matilpi were enumerated as a separate tribe in W.F. Tolmie's 1835 census, in John Work's 1836-1841 census, and in George Blenkinsop's 1885 census (Tolmie 1963:317; Curtis 1915:10:303; Dawson 1888:65). To this we would add that the Matilpi were also enumerated as a separate tribe in George Blenkinsop's 1879 census and in the 1881 Canadian census (Blenkinsop 1879; Canada 1881).

Robson Bight and the Tlawitsis, Matilpi, and Nimpkish Tribes

"Tlawitsis" is an anglicization of *lháwits'is*, the kwakwala name for this tribe. It was the consensus of the people we

interviewed that the lháwits'is have always been a distinct tribe. As we have discussed, the Matilpi have been amalgamated with the Tlawitsis for the past 100 years, but each tribe has maintained its distinct identity.

We did not make any inquiries, ourselves, as to the component nemíma of the Tlawitsis tribe. These nemíma are, however, identified in Boas (1897:330; 1966:39).

Tlawitsis territory is consistently described in the literature as being centered on Turnour Island and West Cracroft Island, and the islands in between these two. But we have not been able to clarify the extent to which the Tlawitsis used and occupied Vancouver Island, including the area of Robson Bight.

It is in the above-mentioned context that we must also consider the traditional territory of the Nimpkish, another of the kwakwala-speaking tribes. Although, as Boas pointed out in 1887 [translated from German], "...earlier on the Nemqisch lived exclusively in the vicinity of Qamatsin Lake [now known as Nimpkish Lake] and its outflow [the Nimpkish River]...", he indicated on the map accompanying this article that Nimpkish territory also extended as far east along the coast of Vancouver Island as the area that is approximately across from Forward Bay (Boas 1887:131.map). We have only a photocopy of this original 1887 publication. On our copy of this map, it does not appear that Boas identified the Tlawitis having territory anywhere on Vancouver Island.

Thus, on the basis of this map, we conclude that as far as Boas was concerned in 1887, Robson Bight was in Nimpkish territory. This is puzzling, because Nimpkish territory as indicated on Boas' 1887 map, at least as far as its extent along the shore of Vancouver Island is concerned, is not consistent with

his own written description which accompanies this map.

What Boas had indicated on his 1887 map as the eastern boundary of Nimpkish territory along Vancouver Island, was identified on Wilson Duff's map (likely made around 1960) as the eastern boundary of Tlawitsis territory. Duff placed the demarcation line between the western boundary of Tlawitsis territory on Vancouver Island and the eastern boundary of Nimpkish territory, in an area that was not far east from Beaver Cove, which itself is not far east from the mouth of the Nimpkish River (Duff c.1960).

Thus, as far as Duff was concerned, Robson Bight was in Tlawitsis territory. What we do not know is to what extent Duff based these territorial distinctions on his own, original fieldwork, and to what extent he based them on his analysis of the ethnographic and ethnohistoric literature.

A map of "traditional Nimpkish lands" appeared in a recent archaeological report (Ham and Howe 1983:4) prepared for the U'mista Cultural Society in Alert Bay. On this map, the eastern boundary of Nimpkish territory was indicated approximately midway between Beaver Cove and Robson Bight, which is slightly further east than Duff (c.1960) had placed it. No other tribal territories were identified on this map. It was stated that the ethnographic information contained in this report was based both on the literature and on oral history transcripts made in 1978 (Ham and Howe 1983:5), so presumably the map of Nimpkish territory in this report was based on these same sources.

In an earlier report, Ham cited information from the above-mentioned oral history transcripts which confirmed Boas' (1887:131) description of the original homeland of the Nimpkish:

According to AA(3), Xwalkw [on north side of mouth of Nimpkish River] was the first Namgis [Nimpkish] village on the coast following their move from the Nimpkish River Valley in the interior of Vancouver Island (Ham 1980:29).

We therefore conclude that as far as Ham and Howe and the Umista Cultural Society were concerned, Robson Bight was not in Nimpkish territory. But we do not know these same people's views as to whose territory they did consider Robson Bight to be in.

This situation is complicated even further when we consider that at the meeting between members of the Royal Commission on Indian Affairs and representatives of the Tlawitsis tribe in June 1914, it was the Tlawitsis, and not the Matilpi, who asked for the land at Robson Bight to be set aside as an Indian Reserve (British Columbia 1914a:169-170; 1914b:188).

As we have discussed, both tribes had been living together since about 1890 at the Tlawitsis village on Turnour Island. Each tribe maintained its separate identity even though they were living together. Yet Margaret Cook, Charlie Matilpi and Cecil Wadhams all told us that these two tribes went together each year to the major fishery at Port Neville (we don't know if they used to go together to this fishery prior to 1890). This raises questions such as: what other resource utilization sites did the Tlawitsis and Matilpi share after they began living together, and was Robson Bight one such site? Did the Tlawitsis tribe ask for an Indian Reserve at Robson Bight in 1914 because of their own traditional utilization of this area, or because through intermarriage with Matilpi people they had obtained rights to it? We do not know the answers to these questions.

Cecil Wadhams recalled his grandfather, who was of mixed Tlawitsis and Matilpi ancestry, saying that the "old-time Indians" used to go to Robson Bight to obtain fish on a seasonal basis but did not winter there. Mr. Wadhams thought that his grandfather was referring to a previous generation (that is, to Cecil Wadhams' great-grandfather's generation) when he said this. Yet Cecil Wadhams did not recall exactly which tribe of "old-time Indians" his grandfather was referring to.

Chief Charlie Matilpi, however, stated he had heard that Matilpi Indians did live at Robson Bight at one time. He did not recall how long ago this was said to have been, nor did he know anything of the nature or location of the Robson Bight village.

It is interesting to note that part of the description of Robson Bight in 1914 included its identification as a "trapping base" (British Columbia 1916:II:407). In this context, we would point out that both Cecil Wadhams and Medric Wadhams stated that as far as they knew, their father, Jimmy Wadhams (who was of mixed Tlawitsis and Matilpi ancestry) was the first Indian man to trap at Robson Bight. Presumably it was because of Jimmy Wadhams' trapping activities that Robson Bight was said to be a "trapping base" in 1914.

Robson Bight and the Fort Rupert People

A possible former association of Robson Bight with the Fort Rupert people was not known to our Indian consultants. However, this association is discussed in detail in the literature describing the earliest known history of the Fort Rupert sub-tribes.

The **kwágu7lh** or Fort Rupert people are subdivided into sub-tribes (or septs), which are in turn subdivided into a number of descent groups known as **nemíma**. A different terminology has been employed by Leland Donald and Don Mitchell (1975:325-328). They have identified all the kwakwala-speaking tribes, including the **kwágu7lh** sub-tribes, as "local groups."

In his final statement on Kwakiutl social organization, Boas (1966:39) identified four **kwágu7lh** sub-tribes: the **gwítela**, the **kw'úmuyúy**, the **wálas kwágu7lh**, and the **kw'úmk'ut's**. He also identified the **mádlhbi** as a "sub-sub-tribe" that developed through a process of fission from the **ma7émtagi7la** numaym of the **gwítela** sub-tribe. The **ma7émtagi7la** remained the leading numaym of both the sub-tribe and the newly-formed "sub-sub-tribe".

The legendary home of some of the **kwágu7lh** was said to have been in Hardy Bay until the original ancestor of one of the numayms decided to move south in search of a village site (Duff 1953-1954; Boas and Hunt 1921:II:1386-1388). Mungo Martin gave the name of this ancestor as "**mátagila**" (Duff 1953-1954), and noted that he took a second name, "**máx^wi?alici**" once he had a large family (Duff 1952). This latter name, transcribed by Boas (1921:II:795) as "**é^wmāxúyalidzē**", was said to have been the chief's name of the **ma7émtagi7la** numaym of the **gwítela** sub-tribe.

Chief Charlie Matilpi recognized the name **mátagila** [Duff's (1953-1954) "**mátagila**"], although he did not associate it with the name of a first ancestor: rather, he referred to it as the "crest" of his tribe, the Matilpi.

The story of this southward **kwágu7lh** migration describes how this original ancestor (the man Boas identified as "**é^wmāxúyalidzē**") settled at **kálugwis** on Turnour Island and then invited the other **kwágu7lh** people to a potlatch and to settle in the same vicinity.

Some settled at "Ādap!" and others settled at "Q!ābē".

Elsewhere in Boas, "Ādap!" was identified as a wálas kwágu7lh village located in Turnour Bay on Turnour Island, not far from kálugwis, and "Q!ābē" was identified as one of the small islands immediately west of Klaoitsis Island (Boas 1934:map 14, place names 78 and 79). Klaoitsis Island was one of the earliest homes of the lháwits'is tribe.

According to this story, those who built houses at "Adap!" were the ancestors of the "Lēq!em" and the dlídlegidi numayms who came across from ús7ekw at the mouth of the Tsitika River in Robson Bight.

Robson Bight has been identified as the "place of origin" of two brothers who descended from the sky at ús7ekw and were the first ancestors of the two numayms of the kw'úmk'ut's sub-tribe (Boas and Hunt 1921:II:801,804; Boas 1934:36). The rather cryptic story recorded by Boas and Hunt which explains this is as follows:

Lēq!em, the first one came down at the place called Ōseq^a [ús7ekw]. Lēlēgēd, they also staid at Ōseq^a, for Lēq!em was his older brother (Boas and Hunt 1921:II:804).

Boas (1966:39) translated "Lēq!em" as 'real name' and "Lēlēgēd" as 'those from whom names are obtained.' None of our Indian consultants recognized "Lēq!em" as the name of one of the first ancestors and numayms associated with Robson Bight.

Boas (1921:II:817-820) also recorded a story explaining how the first chief of the "Lēq!em" numaym at ús7ekw received supernatural treasures from the Killer Whale people who had a large house at a7úsayagwem, about six miles east from Robson

Bight. The Killer Whale people gave the chief this house, so his own people moved from ús7ekw and established a village at a7úsayagwem.

An association of one of these Komkiutis numayms with Beaver Cove has also been recorded. It exists in one of the "family histories" recorded by George Hunt for Franz Boas and published in 1921. In this particular story, it was said that "the ancestors of the numaym Łčłęęēd" of the Komkiutis tribe lived at "Q! g es" (Boas and Hunt 1921:II:1117). "Q!Eg•ēs" has been identified elsewhere by Boas (1934:map 8, place name 46) as the name of the southernmost inner portion of Beaver Cove, which is located midway between Port McNeill and Robson Bight. This place name was independently identified for us by Margaret Cook and Cecil Wadhams as kw'egís (Boas' "Q!Eg•ēs").

Very little has been recorded about the kw'umk'ut's sub-tribe, and almost nothing is known about them today. They were enumerated in two censuses around 1840, but they were not mentioned in census data from 1878 onwards. We can not say for certain when they ceased being enumerated. Duff (c.1960) said the Komkiutis merged with another kwágu7lh sub-tribe, the wálas kwágu7lh, "before 1885." How soon before 1885 this occurred, we do not know for certain. The Komkiutis were not listed in George Dawson's 1878 list of kwakwala-speaking tribes, nor were they enumerated in George Blenkinsop's detailed 1879 tribal census for this region (Tolmie and Dawson 1884:118b-119b; Blenkinsop 1879).

As far as we know, there are only two early references to the kw'umk'ut's sub-tribe. One of them is James Douglas' census of May, 1840, at which time this sub-tribe was identified as the "Kumkootis", living at "McNeills Harbour" (Port McNeill). The other is John Work's 1836-1841 census, where they were identified as the "Cum-que-kis", although no residence was indicated (Douglas

1840; Curtis 1915:10:303). The Douglas census is particularly interesting, as it supports the early association, provided in Boas and Hunt's writings, of the Komkiutis with two areas not far east from Port McNeill--Beaver Cove and Robson Bight.

Most of the Indian people we interviewed for this present report recognized kw'úmk'ut's as the name of a sub-tribe. Only Mrs. Helen Knox, however, knew the term dlídlegidi, which is the word that Boas and Hunt (1921:801,804) had transcribed as "Lēlegēd" and had identified both as the name of one of the kw'úmk'ut's numayms, and as the name of one of the first ancestors who landed at Robson Bight.

Helen Knox recalled the late Mungo Martin and several of the other old people mentioning the word dlídlegidi. She thought this term had something to do with one of the kwágu7lh tribes, but she could not confirm that it was the name of a numaym, or that it was associated with the kw'úmk'ut's sub-tribe, or that it had any association with Robson Bight.

Edward Curtis (1915:10:308) independently identified dlídlegidi as a "gente" (nemíma) of the kw'úmk'ut's tribe. Curtis did not associate kw'úmk'ut's or dlídlegidi with any geographical location, however.

The only other reference we have found to dlídlegidi is a brief mention in Wilson Duff's original notes on "Kwakiutl" social organization based on his field interviews with Mungo Martin. Duff transcribed dlídlegidi as "ÁíÁəki", and indicated it had some association with kw'úmk'ut's. But in his notes he did not clarify the nature of the implied relationship between these two terms. He stated only that there were "none left" of the Komkiutis (Duff 1952).

Dlídlegidi is also identified as one of the numayms of another tribe, the Tlawitsis, in Boas (1897:330; 1966:40), as well as in Duff's (1952) field notes with Mungo Martin. We did not inquire about the Tlawitsis numayms with any of our Native consultants who were of lháwits'is ancestry. In any case, none of them knew the term dlídlegidi. But there are numerous instances where the names for the numayms occur repeatedly throughout the various kwakwala-speaking tribes (see Boas 1966:38-41). Consequently, we are not certain how to interpret the fact that dlídlegidi has been identified as a numaym of both the kw'úmk'ut's and the lháwits'is. Rosman and Rubel (1970:143), however, have discussed how tribes in proximity to one another regularly interacted, married and potlatched, so it is possible that through fission, both groups developed this particular numaym.

Prior to the establishment of Fort Rupert in 1849, a principal village of the kwágu7lh was at kálugwis on Turnour Island. The Tlawitsis people were living on an island just south of kálugwis which is now known as "Klaoitsis Island". But when the kwágu7lh left kálugwis and congregated at Fort Rupert, the lháwits'is tribe moved away from Klaoitsis Island and went to live at kálugwis (Boas 1887:131; Curtis 1915:10:307; Dawson 1888:72).

In the late 1800s it was said that the Fort Rupert people still considered kálugwis "as their old home" and regarded this place "with a species of affection" (Dawson 1888:72). Today, some of the Fort Rupert people still acknowledge kálugwis as a place where their people used to live "a long, long time ago"--this is what Mrs. Helen Knox told us.

When the kwágu7lh sub-tribes congregated at Fort Rupert, they maintained their separate identities and lived in specific sections of the village that are still known today. As Helen Knox explained it to us, these different sections of the village.

proceeding from east to west, were: kw'umuyúy, kw'umk'ut's, gwítela, ma7émtagi7la, and wálas kwágu7lh.

An interesting difference emerges when we compare these five kwágu7lh sub-tribes as enumerated by Mrs. Knox with the kwágu7lh sub-tribes enumerated in Boas' (1966:39) most recent work. The difference lies with the ma7émtagi7la. Helen Knox considers the ma7émtagi7la to be a kwágu7lh sub-tribe, distinct from the Matilpi who she views as a non-kwágu7lh tribe. On the other hand, Boas identified ma7émtagi7la as the leading nemíma of the gwítela tribe and as the leading nemíma of the Matilpi sub-tribe (Chief Charlie Matilpi identified ma7émtagi7la as the leading nemíma of the Matilpi tribe). However, as we have discussed, Boas did not recognize the Matilpi as a fifth kwágu7lh sub-tribe--he claimed that they had "split off" from the ma7émtagi7la numaym of the gwítela tribe (Boas 1966:46). Yet, as we have noted, there is considerable evidence in the literature to consider the Matilpi as a distinct tribe.

Summary

It was the consensus of our Indian consultants that the Robson Bight area has always been utilized by kwakwala-speaking people. This is confirmed in the ethnographic and ethnohistoric literature. The ethnic identity of these people, however, has not been described consistently in the literature. It is possible, indeed even likely, that the primary user group of Robson Bight has changed over the past two hundred years.

Significantly, Robson Bight is said to have been the landing site for the first ancestors of the two numayms of the kw'umk'ut's, one of the sub-tribes of the kwágu7lh (Fort Rupert) people. As we have noted, a story recorded by Boas indicates

that people from Robson Bight later moved to the wálas kwágu7lh village established in Turnour Bay on Turnour Island.

Boas' 1887 map of tribal territories allotted the area of Robson Bight to the Nimpkish tribe, but this is not supported by his own written description of this tribe's lands, or by any subsequent evidence that we are aware of.

Information obtained from lhawits'is people in 1914 suggests that they had rights to the fishery at Robson Bight, but as we have discussed, these people had been amalgamated with the madilhbi for a full generation by this time.

Contemporary Matilpi Indian consultants maintain that they have always been a distinct tribe, and that Robson Bight has always been within their traditional territory.

NATIVE KNOWLEDGE AND USE OF ROBSON BIGHT

Indian Place Names in Robson Bight and Vicinity

The kwakwala name for Robson Bight first appears in the literature on George Dawson's 1887 map of "Kwakiool" place names. Here it was transcribed as place name no. 104, "Qse-ka", with no English translation (Dawson 1887).

Several references to the Indian term for Robson Bight are found in the materials relating to the Royal Commission on Indian Affairs for the Province of British Columbia. Here this name was transcribed as "Usag", with no translation given (British Columbia 1914a:169-170; 1914b:188; 1916:II:407).

In chronological order, the next reference to Robson Bight is found in Boas and Hunt's 1921 publication, Ethnology of the Kwakiutl. As we discuss elsewhere in our present report, it is in this publication that "ōstq^u" (ús7ekw) was identified as the place of origin for the two numayms of the Komkiutis sub-tribe of the kwágu7lh (Boas and Hunt 1921:II:801, 804, 1386-1388).

A further reference to Robson Bight is found in the correspondence between Franz Boas and George Hunt. From reading this exchange of letters, we conclude that most of the geographical place names research that Hunt conducted for Boas was completed between 1918-1919. Some additional work was done by Hunt between 1931-1933 when Boas was preparing these place names data for publication. During that time, Boas wrote to Hunt on March 27th, 1931 and asked his Native colleague to send him a map of Vancouver Island "with the places where all the ancestors came down." This was a follow-up to a 38-page manuscript that Hunt had written and sent to Boas on January 9th, 1918, which described

"where the different *nememuts* [numayms] of the *kwaguks* all told came down" (Boas 1931; Hunt 1918a) (undoubtedly the latter was one of the manuscripts which was rewritten and incorporated into Boas and Hunt's 1921 publication).

On December 1st, 1932 Boas again wrote to Hunt and asked him: "Will you please tell me whether $\delta's^{\epsilon}q$ [$\delta's^{\epsilon}q$] is Beaver Cove or one of the little bays farther east. My notes are confused on this point" (Boas 1932). This statement is puzzling, because Boas had already published a reference, in the monograph he co-authored with Hunt (1921:II:1117), to people living at Beaver Cove who were the ancestors of one of the numayms which originated at Robson Bight.

The kwakwala name for Robson Bight, transcribed as " $\delta's^{\epsilon}q$ ", appears in Boas' 1934 geographical place names publication. He noted that this term was "said to mean 'grey-haired,' i.e. with burnt trees" (Boas 1934:36, map 11, place name no. 5). We assume there was some feature of the landscape here--possibly the effects of an ancient forest fire--that accounted for this name.

After Boas' 1934 study, we are aware of no other transcriptions of the kwakwala term for Robson Bight until 1981. At this time, linguist Peter Wilson, while working for the Campbell River School District, produced a map of kwakwala place names (Wilson 1981a). He also provided a list of these place names as part of a booklet entitled Northwest Coast Culture Lessons (Wilson [1981b]). The source of much of Wilson's place names data was the late James Henderson, a knowledgeable kwakwala-speaking Indian man originally from Blunden Harbour.

Peter Wilson transcribed the kwakwala term for Robson Bight as " $\delta's^{\epsilon}q$ " but provided no translation for this word (Wilson 1981a: [1981b:10]).

Most of the Indian people we interviewed for this present report recognized ús7ekw as the kwakwala name for Robson Bight, although two of them (CW and MC) applied the name to the Tsitika River rather than to Robson Bight, itself. None of our Native consultants was able to translate this term, nor could any of them confirm the translation that Hunt and Boas provided, 'grey-haired.'

In his Culture Lessons booklet, Wilson identified the "river behind Robson Bight" (clearly he was referring to the Tsitika River) as "čədíga" which he translated as 'split back' (Wilson [1981b:3]). No other source has provided the name for the Tsitika River. Obviously "Tsitika" is an anglicization of "čədíga."

Although Charlie Matilpi accepted the translation 'split back' for the kwakwala term "čədíga" that Peter Wilson [1981b:3] had transcribed as the name of the Tsitika River, neither he nor any of our other Indian consultants had ever heard Tsitika River called by this name. However, as we have noted, the late Jim Henderson, who very likely provided this name for Peter Wilson, had a good knowledge of this area because he had spent a lot of time with Charlie Matilpi's father.

Another name recorded in the area of Robson Bight appears in Boas' 1934 publication. He identified the point of land at the western entrance to Robson Bight as "nṓmas," and provided the following translation: "old man i.e. sea monster; name of many dangerous points." Boas explained in the Introduction to this publication that:

Among names referring to mythical beings nṓmas, old man, is the most common [name]. Almost every dangerous point is so called, and the Indians explain that the name refers to the sea monsters

that are supposed to dwell at these places (Boas 1934:14, map 11, place name no.6).

None of the people we interviewed knew of the point at the western entrance to Robson Bight by the name *númas*. But as Boas noted, there are a number of places called *númas* throughout the kwakwala-speaking area (Boas 1934:14, map 11, place name no.6).

Cecil Wadhams was particularly interested to hear that the name *númas* had been recorded by Boas for this point at the entrance to Robson Bight. This was because his father, Jimmy Wadhams, had lost a troller (which, ironically, was named "Numas 4") in the 1940s off the mouth of a creek not far south from this point. Cecil Wadhams and his father had been trapping up this creek and sleeping at night on board the troller which they anchored in the bay off the mouth of the creek. But a strong southeast wind came up suddenly one night with such force that it snapped the anchor line and swept the troller ashore onto the rocks. They managed to scramble on to shore but the troller was smashed to pieces (CW).

The only other place name in the general vicinity of Robson Bight that was known to our Indian consultants and appears in the ethnographic literature is *a7úsayagwem*. Boas (1934:map 14, place name no. 128) transcribed this name as "aō'saagūm" and translated it as 'the little ḏ's^εεq^u', and Dawson (1887:place name no.105) transcribed it as "a-ows-a-a-kown", with no translation. They both applied this name to the place known as Naka Creek, which is located about six miles east from Robson Bight.

Charlie Matilpi and Cecil Wadhams also applied the name *a7úsayagwem* to Naka Creek. They translated this term as 'little *ús7ekw*', that is, 'little Robson Bight.' No one was able to explain to us why this site was identified as the diminutive form

of Robson Bight.

When we first interviewed Willie Hunt and asked him about place names in Robson Bight, he immediately mentioned the two terms ús7ekw and a7úsayékw. Mr. Hunt said that a7úsayékw meant 'little ús7ekw.' He pointed out on the marine chart that a7úsayékw was the tiny bay immediately inside (south from) the distinctive point which forms the western entrance to Robson Bight. When we talked again briefly with Willie Hunt two weeks later, he identified the same little bay, but pronounced the name both as a7úsayékw and as a7úsayagwem. The former pronunciation was not known to our other Indian consultants.

It is intriguing that Willie Hunt applied this name to the small bay west of Robson Bight, as "the upper side" of ús7ekw was where the legendary village of a7úsayagwem was said to have been established. This was after the ús7ekw chief received supernatural treasures, including a house, from the Killer Whale people (Boas and Hunt 1921:II:817-820) (for a summary of this story see below).

Robson Bight and the Royal Commission on Indian Affairs

On June 2nd, 1914, members of the Royal Commission on Indian Affairs for the Province of B.C. met with representatives of the Tlawitsis tribe. At this meeting, Tlawitsis Chief Johnnie Clark discussed with the Commissioners the various additional lands that the tribe wanted set aside as Indian Reserves. Among them was land at Robson Bight. Chief Clark stated: "I want the river [Tsitika River] flowing into Robson Bight. I want a site for a village at the mouth of it and a fishing village." When one of the Commissioners asked if there were any houses at Robson Bight, Johnnie Clark replied, "It used to be a fishing station, but there

is no one there now" (British Columbia 1914a:169-170).

The land applied for here by the Tlawitsis was identified in the Royal Commission's published report as "a village site at the mouth of a river [the Tsitika River] flowing into Robson Bight." The purpose for which the Tlawitsis people wanted this land was given in the report as: "Village site and fishing station, also trapping base" (British Columbia 1916:II:407).

This application by the Tlawitsis for land at Robson Bight was discussed later at a meeting of the Royal Commission in Victoria on June 25th, 1914. In a summary report of this meeting, Commissioner Shaw discussed "the place known as Usag":

[us7ekw]...was upon Pulp Limit [District Lot] No.221 and was a long occupied fishing station, where the Indians secured all varieties of salmon. The dog salmon in particular were plentiful in that river [the Tsitika River] and he [Mr. Shaw] recommended that five acres be granted at a fishing station. He did not know of any better dog salmon stream or station available to this Tribe [the Tlawitsis] (British Columbia 1914b:188).

Despite Commissioner Shaw's recommendation, no land was ever set aside at Robson Bight for the Indian people. It was stated in the published report that the Royal Commission's Lands Committee had reported the land applied for at Robson Bight was alienated and consequently the land application was not entertained (British Columbia 1916:II:407).

We do not know precisely which site or sites at Robson Bight were applied for by the Tlawitsis tribe in 1914. But a check of the B.C. Land Registers indicates that in January 1907, a man

named Claud Elliott applied to the Government of British Columbia to purchase land at the mouth of the Tsitika River. This land had been surveyed on October 24th, 1906 as District Lot 223, consisting of 94 acres and taking in both sides of the river mouth. DL 223 was Crown-granted to Mr. Elliott on June 25th, 1909. In addition to this, a 13,200-acre strip of land beginning at the mouth of the Tsitika, on either side of the land that later became DL 223, and extending for several miles up the Tsitika River had been surveyed in 1905 as District Lot 221. On November 30th, 1906, a 21-year pulp lease was taken out on DL 221 by Canadian Industrial Co. Ltd. This lease was taken over by the Powell River Company Ltd. on September 4th, 1914 (British Columbia n.d.a).

From statements made by his father, Cecil Wadhams understood that "old-time Indians" (his father did not identify which tribe) used to go to Robson Bight to obtain fish, but it appears this was in the time of Cecil Wadhams' great-grandfather. CW further understood from his father's comments that Robson Bight was not a winter village site.

Charlie Matilpi was told that Matilpi people did live at Robson Bight at one time, but he knew of no details about the nature of the village, or exactly where it was located, or how long it had been since it was occupied, or what time of the year it was occupied.

Recent Indian Utilization of Robson Bight

To the Indian people we interviewed, Robson Bight has been best known in recent years, and is still known, as an excellent place for commercial salmon fishing, both trolling and seining. Cecil Wadhams pointed out that dog salmon, humpbacks, and sockeye

are caught here, and some steelhead, but no cohoes or spring salmon. Willie Hunt, however, said dog salmon, cohoes, and steelhead are caught here, but no sockeye and no spring salmon.

According to Cecil Wadhams, Robson Bight is especially known for its very late run of dog salmon, lasting right into early January (see also the Royal Commission's comments about dog salmon here in 1914).

The other main utilization of Robson Bight by Indian people, at least since about 1914, if not earlier, has been for trapping (recall the Royal Commission reference to the mouth of Tsitika River as a "trapping base"). Most recently, a trapline at Robson Bight has been registered since 1963, and continues until the present day, in the name of Medric Wadhams. This is the same trapline that Cecil Wadhams, Medric's older brother, had used before him, and that their father, Jimmy Wadhams, had used even earlier. This trapline runs along the entire shoreline of Robson Bight and extends inland approximately four miles to the confluence of Catherine Creek with the Tsitika River (British Columbia n.d.b).

Cecil Wadhams trapped frequently at Robson Bight with his father, Jimmy Wadhams, between the 1930s-1950s. He told us that the time of year they trapped here was no earlier than the beginning of October and no later than the end of February.

Both Cecil and Medric Wadhams pointed out that as far as they knew, Jimmy Wadhams was the first Indian person to trap at Robson Bight. Thus, as we have discussed, when the Royal Commission in 1914 referred to Robson Bight as a "trapping base," we presume they were referring to the trapping that Jimmy Wadhams was doing there.

Cecil Wadhams described how in the late 1930s he and two of his brothers, Don Wadhams and Willie Wadhams, helped their father to build a small shack on the northwest end of the island at the mouth of the Tsitika River. They frequently stayed in this shack while trapping around Robson Bight. He noted that the spot on the island where the shack was located never flooded, and it was possible to bring a gillnetter right up to the island here, to get ashore.

A good trail followed up alongside the Tsitika River in the 1930s-1950s, Cecil Wadhams recalled, and he and his father used to set traps for beaver beside this trail. But he noted that trapping was not really good up the Tsitika River, and consequently they didn't spend that much time up there.

Along the Robson Bight shoreline they trapped mink and raccoon. But the most valuable animal they obtained from Robson Bight was marten, Cecil Wadhams pointed out. And the best place to get marten was up the un-named creek which (according to the Nimpkish 1:50,000 topographic map sheet) originates just south of Mount Sir John and flows in a northeasterly direction through Timber Licence 7448 into Robson Bight. Cecil Wadhams and his father trapped as far as halfway up along this creek, alongside which they blazed a trail. As we discuss elsewhere, Cecil Wadhams and his father used to anchor their troller off the mouth of this creek while they were trapping here, and sleep aboard it in the evenings.

Both Charlie Matilpi and Cecil Wadhams were familiar with the construction and use of deadfall traps, called *kw'idlayu* in the kwakwala language. But Cecil Wadhams stated that only modern steel traps, called *k'ágayu*, were used at Robson Bight [detailed descriptions of the various types of deadfall traps may be found in Boas (1909:507-510)]. Both of these men described how trappers

used spruce boughs to smoke their traps, and themselves, to remove human scent (this smoking process was called *tl'elhá*). And Cecil Wadhams recalled how he and his father used to do this at their little shack at the Tsitika River mouth.

Robson Bight was also a hunting area, mostly for deer. Cecil Wadhams remembered how deer and elk used to come right up to their trapping shack.

As we stated, neither Cecil Wadhams nor Charlie Matilpi were aware of the former Indian utilization of Robson Bight. And although Cecil Wadhams had been told that the "old-time Indians" used to get fish here, he was not aware of the location of any traditional fishing sites in the Tsitika River.

However, Cecil Wadhams was very familiar with a traditional, tidal rock-weir fishing site on the Nimpkish River, which is about 20 miles west from Robson Bight. This type of tidal rock weir is known in the kwakwala language as *k'etelá* (CW). It was located not far downriver from the present-day highway bridge over the Nimpkish River. More specifically, Cecil Wadhams said this rock weir was located in a former channel on the south side of an island, which itself is on the south side of the Nimpkish River near its mouth. The kwakwala name of this island is *k'ágis* (CW), which Boas (1934:13, map 8a, place name no.51) translated as 'logs laid crosswise foundation on ground' with reference to the way houses were formerly constructed at this site.

From the description that Cecil Wadhams provided, we understand that rocks were piled up "about two or three feet high" in a manner that was something between semi-circular and v-shaped. Apparently the rocks were arranged in such a manner that when the tide went down, the narrow channel here was blocked and the fish were trapped. He said that his family used this tidal rock weir

right up until the 1950s.

Undoubtedly this is the same tidal rock weir described and illustrated in Ham and Howe (1984:figure 4.3, 35-38). This also seems to be very similar to the type of rock weir described in Boas (1909:465). And it appears that George Dawson observed a similar type of weir [apparently utilized in conjunction with an additional wooden weir placed just upstream from the rock weir (see also Boas 1909:461)] in use on the lower Nimpkish River on August 6th, 1885:

6. Aug...Stop for lunch at lower end [Nimpkish] lake. P.m. down the Nimpkish River. The Indian boys rather inclined to trifle & stopped nearly an hour at one of the Salmon traps taking out fish...The Indians do not make a regular fishery of the small red Salmon [presumably, sockeye] which at present running, though Catching Enough for use & a few to dry...There are at present two lines of traps of above construction across the Nimpkish R. Probably more at season of Indian fishery. Neither of traps at present complete barriers. Low stone walls built across in shallow rapids. Form a series of bays with convex sides down stream. Fence or grating of split Cedar above. Salmon struggle over the wall--over the Edge of which some water flows--& remain trapped Endeavouring to get through the fence...They are then hooked out by an iron hook fast to a short line on the end of a pole...(Dawson 1885).

Killer Whales and the Robson Bight Area

In the 1921 publication of Boas and Hunt there is a story about the "L̄ēq!em" numaym of the Komkiutis which relates how killer whales were responsible for the people from ús7ekw (Robson Bight) moving about six miles east to the place known as a7úsayagwem. This story is summarized as follows:

While seal hunting one night, "Haē!kūmē", the first chief of the "L̄ēq!em" at ús7ekw, saw a large house at the upper side [emphasis added] of ús7ekw. This house had killer whales painted on the outside walls. The chief from ús7ekw went over to this house, looked through a knothole and heard a man inside talking about him. He entered and stood before the people inside. They told him that the house, a harpoon, and four dishes, along with the chief's name, were now his supernatural treasures. These people also instructed him how to get more sea animals while hunting by following behind them, as they were killer whales. The chief from ús7ekw was told to stay in this house for four days. The men returned to the beach and swam away as killer whales. Then the chief's steersman returned home to ús7ekw, where the people asked him what had happened to the chief. But the steersman would not tell them, because he knew about the new supernatural treasures the chief had been given. After four days, the steersman went again to the killer whale house at a7úsayagwem. He was invited inside and saw that the four house-posts were carved in the form of sea lions and that carved sea lion heads adorned the ends of the two beams. The steersman suggested that the people from ús7ekw

should move over to the killer whale house at a7úsayagwem. So the ús7ekw people dismantled their houses and moved to a7úsayagwem. Here "Haēčəkūmē " became a high-ranking chief of the "Lžq!em" numaym (Boas and Hunt 1921:II:817-820).

Margaret Cook, Charlie Matilpi, and Willie Hunt all told us that killer whales are considered "like humans." Mrs. Cook had heard some of the old people say that killer whales would sometimes come up onto shore, and when they did this, it meant someone was going to die. Charlie Matilpi said that if you harm killer whales, they will "get revenge" on you. The old people said not to shoot killer whales (WH: CW). But during the days when the Indian people used to travel around by canoe, they would, if there were killer whales around, drop four bullets into the water to make them go away (WH). Medric Wadhams recalled his father, Jimmy Wadhams, talking about an Indian man who once shot a killer whale--shortly later, he started vomiting up blood on the beach and died.

It was the consensus of the Indian people we talked to that killer whales had always been around Robson Bight. But, as Cecil Wadhams explained, the old people never seemed to say anything special about Robson Bight in terms of the presence of killer whales there.

Some interesting observations about killer whales are contained in the unpublished field notes of Wilson Duff who interviewed Mungo Martin specifically about this subject on December 21st, 1960. Mr. Martin talked about a Thompson Sound man who, at the time when muskets first became available, shot at a killer whale that swam past his village. He did this even though he had been told not to, because killer whales were "said to be

human in their own way." The next year, a killer whale came right up on to the beach and chased this man. "A man emerged from the whale" and broke both this other man's tendons, and told him: "You mistreated us. You will suffer the rest of your life" (Duff 1960a).

Mungo Martin told Duff that the kwakwala term for killer whale meant 'know how to creep upon your prey'. He also said that the people never used to harpoon killer whales. And he talked about the belief that hunters become killer whales when they die (Duff 1960a).

Tree Utilization

Because of the specific interest of Millennia Research in the subject of aboriginal tree utilization, we asked our Indian consultants about this matter.

Maggie Frank remembered her grandmother scraping the bark off hemlocks at Fort Rupert in the early 1900s. Charlie Matilpi also recalled his mother doing this. Neither of them, however, knew about the details of how this was done.

Several of the people we talked to knew about stripping bark and planks from standing red cedar trees, and about stripping bark from hemlock trees, and Cecil Wadhams knew that fire was formerly used to hollow out canoe blanks from standing red cedars. But none of the people we talked to knew to what extent any of these activities were undertaken specifically at Robson Bight.

Charlie Matilpi and Cecil Wadhams provided the following kwakwala terms with respect to tree utilization: **lhát'a** 'split boards off cedar tree': **sénka** 'strip bark off cedar tree':

p'iwidlek^u 'test hole in tree': lok 'hemlock bark': xkw^ula
'scrape bark off hemlock.'

Apparently Franz Boas and George Hunt were also interested in the subject of aboriginal logging. In response to Boas' request of April 13th, 1906 (Boas 1906), Hunt wrote on May 22nd, 1906 and stated:

I will go to Alert Bay to take that cedar trees
Photograph, the same one you and me saw standing in
the woods where some one splited off some Roof
Boards in the old time (Hunt 1906).

However, it was not until three years later, in the spring of 1909, that Hunt finally took these photos, as he explained to Boas in a letter dated November 20th, 1909:

I have a chance to find one of those cedar tree
standing and Bords splited from it, and I took six
shot at it with the camera, this was Before I got
sick last spring (Hunt 1909).

We assume these photos were sent to Boas, although this is not confirmed in the correspondence. But unfortunately, as Boas explained many years later in a letter to George Hunt dated January 30th, 1930, the photographic prints that Hunt had sent him "in earlier years...faded completely so that they cannot be used" (Boas 1930). Presumably this included the culturally-modified tree photos that Hunt had taken in 1909.

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MATILPI PLACE NAMES (preliminary only)

- all place names (with the exception of #1a and #1b) have been provided by Chief Charlie Matilpi, assisted by Cecil Wadhams Sr.
- translations provided by Chief Charlie Matilpi, also with the assistance of Cecil Wadhams Sr.
- kwakwala Indian terms transcribed by Randy Bouchard--the practical writing system used here is described in David Grubb's 1977 publication entitled A Practical Writing System and Short Dictionary of Kwakw'ala (however, the vowel /ε/ is represented here orthographically as "i" rather than "eh" as suggested by Grubb)
- see also the corresponding numbers of these place names on the accompanying map prepared by Dorothy Kennedy

- | | |
|----------------|--------------------------------------|
| 1. ús7ekw | 1. no translation known |
| [1a. ts'edíga | 1a. 'split back'] |
| [1b. númas | 1b. 'old man'] |
| 2. a7úsayagwem | 2. 'small ús7ekw [place name #1]' |
| 3. híladi | 3. 'plenty of all types of food' |
| 4. wítlidzas | 4. from wítl' 'weakened or defeated' |
| 5. í7akawalis | 5. from ik 'good' |
| 6. laxstu | 6. 'clear water' |
| 7. átligi | 7. 'behind island' |

- | | |
|--------------------|--|
| 8. gél'ditelala | 8. 'deep cove' |
| 9. náladzi | 9. 'south side of bay' |
| 10. mélxma7a | 10. 'white rocks along shore' |
| 11. sísyulhtsemlis | 11. 'resembles a sísyulh
[double-headed serpent]' |
| 12. xik'em | 12. no translation known |
| 13. wáxsdi7 | 13. 'two creeks flow together
into one' |
| 14. wádzi | 14. 'big river' |
| 15. xiyás | 15. 'lost' |
| 16. hanents'a | 16. 'canoe submerged from clam
over-load' |
| 17. metsáskemala | 17. from metsá 'mink' |
| 18. nek'exdli7 | 18. 'west wind hits end of inlet' |
| 19. xaxem | 19. no translation known |
| 20. dzelálh | 20. 'lake' |
| 21. tsánina7ás | 21. 'Chinaman' |
| 22. gwélyadi | 22. 'abalone place' |

23. mekwemekwelísla	23.	'boulders all around'
24. gwadzilís	24.	'north side of inlet'
25. peíxbala	25.	'reef off point'
26. wixwe7ís	26.	no translation known
27. xisuwukawas	27.	no translation known
28. wagítewakw	28.	no translation known
29. atludis	29.	'towards mainland'
30. tligi	30.	no translation known
31. igisbalis	31.	'sandy point'
32. musis	32.	'hold skirt up while wading in water'
33. tlilgas	33.	'place to make dugout canoes'
34. lhelxidas	34.	'itchy'
35. wak'alagilis	35.	'sound of running water'
36. i7tsikn	36.	no translation known
37. muxwdzem	37.	from muxwsa 'pack clams in a canoe'
38. elkw'a7as	38.	'stick tongue out'

39. xwésela'	39. 'midden mound'
40. papits'tn	40. 'whistling of wind'
41. lhélxidas	41. 'itchy'
42. wiwalhu	42. 'narrow neck of land'
43. wágiyá ³ lis	43. 'large flow of water'
44. xwésela'	44. 'midden mound'
45. k'kwíguyuy	45. 'saplings'
46. numas	46. 'old man'
47. melkwayas	47. 'chew food for a child'
48. t'iyá ³	48. no translation known
49. k'emk'emmula	49. 'tree needles fallen on ground'
50. kw'úgwadilhbi	50. 'shelter'
51. k'élxwatelála	51. from k'alawi 'worm'
52. pēwála	52. 'blowing sound' (?)
53. ts'ilhwalagemi	53. 'higher status than anyone' (?)
hadga	no translation known

54. adanus <u>g</u> amsalhas	54. 'over-stuffed from eating too many shiners [fish]'
55. wasilas	55. 'herring-spawning place'
56. yaxp'ala	56. 'stink'
57. p <u>é</u> lk'isla	57. 'reef goes dry in front of mountain'
58. wedaduyuy	58. from weda' 'cold'
59. wax <u>s</u> tálas	59. 'creek enters center of bay'
60. tsikaladis	60. no translation known
61. kw'aw7is	61. no translation known
62. xw <u>é</u> sela'	62. 'midden mound'
63. hu <u>h</u> ugwadi	63. 'place where hu <u>h</u> ukw [cannibal bird] lives'
64. <u>é</u> ntl'a	64. 'strange'
65. <u>k</u> w <u>x</u> adi	65. no translation known
66. s <u>i</u> k'adzulis	66. no translation known
67. ha <u>n</u> adlinwa	67. 'attack people going through channel'
68. p' <u>é</u> lp'elsbala	68. from p' <u>é</u> lems 'moss'

69. megwedz [́] ulakw	69. 'large rock in center of clam bed'
70. g [́] eldiglis	70. 'long bay'
71. dzadz [́] ekwats'i	71. 'west wind hits against'
72. tl' [́] asustwi	72. 'outside from islands'
73. x [́] ikiyalis	73. 'sit on clam basket'
74. xwid [́] igalis	74. 'lone tree overhanging'
75. nek [́] edzulikw	75. 'wind hits against'
76. ts' [́] axentsem	76. 'ironwood grows there'
77. g [́] elte7is	77. 'long beach'
78. ts' [́] ats'anik [́] ela	78. 'islands grouped together'
79. k [́] atsulakw	79. 'walk across from one clam bed to another'
80. kw' [́] ek'astiyi	80. 'opened-up hind end'
81. g [́] eltem	81. 'long face'
82. ne7 [́] anxaxdemis	82. from nex [́] ak 'Canada goose'
83. pap [́] esawalis	83. 'sole [fish] come in between at high tide'

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|---------------------------|---|
| 84. kwixsemi | 84. 'drumming noise made by
dead people' |
| 85. k'ak'axilis | 85. 'wall on beach' |
| 86. xwésela' | 86. 'midden mound' |
| 87. gweyem ^{7/9} | 87. 'a very large species of whale' |
| 88. gwedin | 88. 'goldeneye duck' |
| 89. úxwsulisla | 89. 'channel goes dry' |
| 90. mens7adzuyi | 90. no translation known |