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THE NORTHERN AND KAIGANI HAIDA
A STUDY IN PHOTOGRAPHIC ETHNOHISTORY

DISSERTATION
Presented in Partial Fulfillment of the Requirements for
the Degree Doctor of Philosophy in the Graduate
School of The Ohio State University

By
Margaret Berlin Blackman, B.A., M.A.

* * * * *

The Ohio State University
1973

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Several institutions and individuals have contributed to the evolution of this dissertation from a research idea, through fieldwork, to its final form. I gratefully acknowledge financial aid received from The National Science Foundation (Grant GS 27201), The Society of the Sigma Xi, The Explorers Club, and The National Museums of Canada. In addition, the National Anthropological Archives, the British Columbia Provincial Museum, and The National Museums of Canada provided me with free archival photographs.

A single photograph of the interior of Chief Weah's house at Masset given me by Dr. Edwin S. Hall, Jr. largely determined the course of my research and fieldwork. Neither of us suspected in 1969 that his directive upon handing me this photograph, "See what you can do with this," would result in a dissertation. Dr. Hall advised me throughout all stages of my research; his wise counsel and good cheer expressed in letters during my fieldwork are of especial value to me. I believe the effects of his teaching and his approach to anthropological problems are reflected in this dissertation.

My adviser, Dr. Erika Bourguignon, brought a fresh perspective to the reviews of my dissertation drafts. I appreciate not only her excellent advice but am grateful to her for finding financial support for me during the writing of the dissertation.
To Professor Perry E. Borchers of the Department of Architecture at The Ohio State University I owe a very special debt. Mr. Borchers was most enthusiastic about the possibility of photogrammetric analysis of Haida architecture and undertook the awesome task of instructing me in the rudiments of photogrammetry.

In embarking upon fieldwork in a rather well-trodden geographical area, I was most fortunate in having the cooperation of two other anthropologists who had done fieldwork and/or ethnohistorical research on the Haida. Dr. Mary Lee Stearns of the University of Victoria gave me invaluable help prior to departing for the field and provided me with data from her own fieldwork at Masset. Dr. George F. MacDonald of the National Museum of Man in Ottawa advised me in matters of Haida ethnohistory and offered numerous suggestions and thought-provoking criticisms, particularly during the early, crucial stages of writing.

I would like to thank Dr. William Sumner for helping me with initial organizational problems and Dr. Viola Garfield for letting me study her field notes of Kasaan. I am also grateful to the following individuals for assistance with research problems: Margaret Blaker, formerly of the National Anthropological Archives; Nick Gessler of the Department of Anthropology, University of Alberta; Elisabeth Jackson of the National Museum of Man; Walter Johnson, Photohistorian, The Ohio State University; Barbara Routley of the British Columbia Provincial Museum; and, Allan Taylor of the U. S. Forest Service.

Fellow graduate students, Rita Byrnes, Judith Gussler, and James McLeod gave several hours of their time to proofread this manuscript.
and I appreciate their help.

For my husband, Jim, who endured my fits of depression, my irritability, and my occasional good humor while in the field and who shared with me all the elation as well as the boredom of fieldwork, I have the utmost admiration. He took an active part in all aspects of my fieldwork, read and critiqued each chapter of this dissertation, and drew the Figures and three maps of Kasaan. The best compliment I can pay Jim is to say that he has been my severest critic; to him too goes the credit for several of the ideas expressed in this dissertation.

I owe a great deal to my mother who has always encouraged me in my academic endeavors and whose financial assistance during my years as a graduate student has been most appreciated.

Finally, it is the people of Masset and Hydaburg whom I thank for their gracious acceptance of two outsiders, for their generous loan of equipment, and for their cooperation and interest in my project. I hope this dissertation will meet with their approval, and if in some way it can give the Haida people a better understanding of their cultural heritage, it will be a contribution.
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1970 The Avunculate: A Cross-Cultural Critique of Claude Levi-


FIELDS OF STUDY

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Culture Change

Material Culture

Ethnohistory

Visual Anthropology
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INTRODUCTION

This dissertation is a study of late nineteenth century Northern and Kaigani Haida settlement patterns and culture change viewed primarily through the medium of early photography. The study considers early photographs as a new form of subject matter for ethnohistorical research, offers a statement on the nature of these visual ethnohistorical documents, and provides new and different methodological approaches for the analysis of historic photographs.

The research was originally formulated as an investigation of the process of material culture change among the Haida Indians of British Columbia and Alaska. The project was designed to analyze the following: 1. the nature of the process by which native-made items were replaced by those of Anglo-American manufacture; 2. the relationship between changes in material culture and changes in behavior patterns; and, 3. the significance of varying rates of change for different items of material culture. Attention was to be directed toward the operation of these processes between 1870 and the present, a period of intensive and rapid culture change. Photographs taken at the Haida village sites between 1878 and the turn of the present century were expected to contribute to the study both informationally and methodologically. In addition to the goals of contributing to Haida ethnohistory and establishing the value of the still photograph as an ethno-
historical document, the research was intended to be an ethnological contribution to the theoretical aspects of material culture.

Only after beginning the fieldwork for this project did I realize that the quantitative documentation of all the changes in Haida material culture during the last century including the introduction of telephones, electricity, and most recently, television and indoor plumbing, would prove too great an undertaking for the time I had allotted for fieldwork. To meet all of the original goals of my proposal, my fieldwork would have necessitated a material inventory of each of the 110 households in the village of Masset where the majority of my research was conducted. In retrospect, the time factor notwithstanding, I doubt that the sensitivity of the contemporary Haida people toward researchers in the social sciences would have allowed such an inventory to be made. On the other hand, the potential of the photographs of Haida villages for revealing important data on the process of material culture change was apparent from the very beginning of my fieldwork. Thus the focus of my research problem was narrowed not only because of limitations of time, but more importantly, because I felt that a study of material culture change emphasizing a new ethnohistorical medium would, in the end, contribute more than the results of the rather diffuse original research problem.

Field research for this dissertation was conducted among the Haida at Masset, Queen Charlotte Islands, British Columbia, between November, 1970 and June, 1971 and at Hydaburg, Alaska, from June, 1971 to September, 1971. During the summer of 1971 four historic Haida vil-
lager sites, depicted in my sample of early photographs, were visited. At those sites the remains of house features and totem poles shown in the nineteenth century photos were examined and measured.

The photographs which form the basis of this study focus on five Haida villages: Masset, in British Columbia, and Sakwan, Howkan, Klinkwan, and Kasaan all in southeastern Alaska. The 196 photographs comprising the sample were collected between 1968 and 1972. These photographs come primarily from the archives of several large museums in the United States and Canada, although smaller archives in North America and in England also furnished photographs. Archival research pertinent to the study was conducted in 1970, prior to fieldwork, at the American Museum of Natural History and at the British Columbia Provincial Museum and Provincial Archives. While in the field I made a short research trip to Prince Rupert, British Columbia, to study the Anglican Church archival materials. During the 1971-72 academic year, following my return from the field, I made research trips to the Field Museum of Natural History, the National Museum of Man (Canada), the Public Archives of Canada, the Presbyterian Historical Society, and the National Anthropological Archives at the Smithsonian. In December of 1972, materials pertaining to the Haida were studied in the Church Missionary Society Archives in London.

The organization of this dissertation falls into descriptive and analytical sections. The first two chapters set the ethnohistorical and contemporary backdrop for the study. Traditional Northern and Kaigani Haida culture is outlined in respect to ecological adaptation,
social structure, and settlement patterns. The history of contacts with agents of culture change is detailed in this chapter as is the sequence of ethnological inquiry in the area. The second chapter describes the modern communities in which field research was conducted. Fieldwork methodology and the quality of the ethnohistorical data gathered in the field are discussed. The theoretical and methodological orientation of the study are presented in Chapter III. In this chapter the nature of the still photograph and its special value as an ethnohistorical document are considered. Conclusions concerning the nature of the photographic document form the basis for the analysis of the 196 photographs in Chapter IV. The photographs from each of the five Northern and Kaigani Haida villages are ordered chronologically and the biases of the sample as well as the implications of these biases are discussed. The photographs are analyzed here not only to determine the manner and content of their portrayal of late nineteenth century Haida culture but to ascertain something of the cultural biases of the photographers.

Chapters V through VII demonstrate that the photograph is an ethnohistorical document capable of providing substantial information on the dynamics of Haida culture. Chapter V, an analysis of the use of photographs in the study of settlement patterns, examines historic photographs of Kasaan village. These photos depict the processes of culture change at the village level in a detail that neither analysis of archaeological materials nor study of other ethnohistorical sources could duplicate.

In Chapter VI the application of photogrammetric techniques to
the several photographs of a Haida house and its totem poles yields
metric data on the size and spatial patterning of some of the features
of a Haida housesite. The significance of this method is that it pro-
vides information which we have for no other Northwest Coast housesite
and data that could be obtained by no other means. At the same time,
this chapter constitutes a test of the applicability of photogrammetric
methods to the metric analysis of non-Western architecture.

Chapter VII focuses upon the individual household, drawing upon
ethnohistorical photographs of three Haida house interiors. These pho-
tographs form the basis for a structural analysis of the Haida house
and a discussion of the patterning of material culture within it.
Photogrammetric data from Chapter VI figure importantly in both anal-
yses.

Although this dissertation emphasizes the unique methodological
and informational contributions of still photography to ethnohistory,
each analytical chapter demonstrates the effective integration of his-
toric photographs and other forms of anthropological data. The care-
fully delimited temporal-spatial focus of the present study is favor-
able to the integration of diverse sources of data and has proven bene-
ificial for the testing and refinement of methodology. The significance
of the present research, in terms of both methodological and cultural
historical contributions, is treated in the final chapter.
CHAPTER I

THE NORTHERN AND KAIGANI HAIDA: THE ETHNOHISTORICAL BACKGROUND

The temporal focus of the present study is narrow, spanning only about thirty years (1878–c.1908). In order to analyse the photographic record of the Haida made during those thirty years, it is necessary to begin with a sketch of traditional Northern and Kaigani Haida culture. Some of the more salient phases of change that traditional Haida culture underwent are then traced. The ethnohistorical record of the Haida following white contact is viewed in terms of three periods, each reflecting qualitatively different contacts with Anglo-American culture. The first is the maritime exploration and fur trade period of the late eighteenth and early nineteenth centuries. Following the decline of the sea otter population on which this trade depended, fur bearing land mammals were sought in trade from the natives, and the trading centers established by the Hudson’s Bay Company became the dominant agents of culture contact and change. This second period dates from 1834 to about 1875. Finally, the period from 1875 to the end of the nineteenth century marks the forced acculturation of the Haida by missionaries and agents of the Canadian and United States governments. It is this latter period which is given the most attention in this and succeeding chapters, for it is contemporary with the early photographic record of the Haida.
The Traditional Haida

Geography and climate

Murdock (1934a) distinguishes four divisions of Haida peoples, each of which was geographically and linguistically distinct with only very minor cultural differences (see Figure 1). The Northern Haida occupied the northwest, north and northeast coasts of Graham Island, and North Island on the Queen Charlotte Archipelago. The Central Haida were located at the southern end of Graham Island and on Moresby, Louise, and Lyell Islands. The Southern Haida, represented by the single winter village of Ninstints, claimed the southern one-half of Moresby Island and the smaller offshore islands in this southern sector of the Queen Charlotte Islands. Prior to the period of white contact, but possibly during the eighteenth century, members of several Haida clans from Masset Inlet and North Island migrated to southeastern Alaska, driving the Tlingit from the most southerly portion of the Alexander Archipelago. Here the Haida built villages on Prince of Wales, Long, Sakwan, and Dall Islands. Differences between the Northern and Kaigani (Alaskan) Haida were reflected in both dialect and social structure; Kaigani clans, for example, underwent some modifications as a result of contact and intermarriage with the Tlingit. Only the

---

1 Swanton (1909) gives six divisions of the Haida. Murdock's northern division includes part of Swanton's "West Coast" Haida, all of the "Rose Spit" Haida, and all of the "North End of Graham Island" Haida.
Northern and Kaigani divisions of the Haida are of immediate concern to the present study.

The territory occupied by all divisions of the Haida ranges from 52° north latitude to 55°30' north latitude. This area is characterized by a dense growth of coniferous forest. The interior of both the Queen Charlotte group and the Alexander Archipelago are mountainous, some of the higher mountains being snow-covered until midsummer. With the exception of the northern and eastern coasts of the Queen Charlottes where fine, sandy beaches are found, most of the coastline consists of small gravelly beaches and fjords.

This area of the Northwest Coast contains abundant floral resources and land and marine faunal resources. Although the latitude is northerly, the climate is tempered by the warm Japanese Current which swings in close to the west coast of the Queen Charlotte Islands. Because the Queen Charlottes contain several unique species of flora and fauna and lack some major mainland coastal species, the islands have been classified as a separate biotic province (Cowan and Guignet 1965). The climax forest in the Queen Charlotte Islands biotic province, consisting of red and yellow cedar, spruce and western hemlock, is, however, identical to that of the Coast Forest biotic province on the mainland.

The Queen Charlotte Islands are an area of high humidity and comparatively high rainfall. The west coast and interior of the islands receive considerably more rainfall than the area around the northern coast of Graham Island which totals approximately sixty inches of rain per year. Summers are cool (July mean high = 68°F) and the winters
comparatively mild (January mean high = 48°F), although there is usually a period of two to three weeks in the winter when the temperature does not rise above the freezing mark. Most rainfall occurs from November to March, and the northern coast of the Queen Charlottes averages about forty days of sunshine during the summer months (Suttles 1968).

The Kaigani Haida are located in the Sitka biotic province. Rainfall here is higher than on the northern coast of the Queen Charlottes, averaging about 150 inches per year. Summers are slightly warmer and winters still comparatively mild but colder than in the Queen Charlottes to the south. The climax forest in the Sitka biotic province consists of the same species mentioned above, although spruce and hemlock occur more frequently than red and yellow cedar.

In the Alaskan Haida area black bear, deer, wolf, beaver, marten, mink, and land otter comprise the major fauna, whereas before the early twentieth century, three of these—deer, wolf, and beaver—were notably absent from the Queen Charlotte Islands. The marine fauna, similar in both areas, are discussed below in respect to subsistence.

**Subsistence**

Because flora and marine fauna exploited by both the Northern and Kaigani Haida were quite similar, subsistence is described in general as it applies to both groups. The Haida subsistence base was an extensive one. Dawson (1880:109B) writes, "A complete list of the articles used by them as food, would, however, indeed be a long one, as few organic substances not absolutely indigestible would be omitted." Murdock (1967) lists Haida dependance on various types of food resources as
falling within the following percentage ranges: Fishing, sea mammal
hunting, shellfish gathering—56-65%; Gathering—16-25%; Hunting—
16-25%. These figures clearly point to the marine orientation of
Haida subsistence.

As regards fishing, four species of salmon were taken, and two of
these, sockeye and dog salmon, were particularly valued. Dog salmon
was especially important because of its superior preserving qualities.
All four species of salmon were caught in fish traps or were speared as
they began their journeys up the rivers to spawn. Sockeye were taken
from the beginning of May until about the first of July, coho in July
and August, humpback salmon in August, and dog salmon in late September
and December. Halibut, fished all year round, were most abundant from
March to November (Murdock 1934b), although their occurrence at different
halibut banks varied considerably. Both salmon and halibut were smoked
and dried; the latter, however, was most frequently simply sun-dried.
Black cod, trout, herring, rockcod, and flounder, in contrast to salmon
and halibut, were comparatively minor fish in the Haida diet.

Fish roe and spawn were important Haida food items. Coho and dog
salmon roe, taken from these species after they had ascended the rivers,
were either allowed to ferment or were smoked. Herring spawn, not
available near Masset but obtainable in the spring from Skidegate Inlet
to the south and in the waters around the Kaigani villages to the north,
was considered a delicacy. Rockcod spawn was also collected in the
spring.

Eulachon, a fish rendered for its precious oil, was found neither
on the Queen Charlottes nor on the Alexander Archipelago. The Haida obtained this very important food and prestige item from the Tsimshian on the mainland.

A number of shellfish figured importantly in the Haida subsistence economy. Two different species of chiton were collected year round from the rocks at low tide. Clams, cockles, and mussels were gathered at low tide from October to April, and during the coldest part of the winter after a severe storm, cockles and clams could be picked off the surface of the beach, obviating the need to dig in the cold and occasionally frozen sand. Octopuses, used for halibut bait in addition to being eaten, were caught at very low tides. Crabs, abalone, and purple sea urchins were also important shellfish; the latter, gathered from fall until May, were considered a delicacy.

Several sea mammals were hunted by the Haida. Fur seal and sea otter, valued traditionally for their pelts and later important in the maritime fur trade, were hunted in the early spring as they began their northerly migrations. Harbor seal and sea lion were important for their meat and oil as well as for their pelts. Whales were not hunted, but dead whales were prized whenever they accidentally drifted ashore.

Non-marine mammals were not particularly significant in the Haida diet. Only a few were hunted and none were pursued very far inland. Bear and deer were taken as they browsed on lush vegetation at river mouths and along the edges of the forest. It was unnecessary to hunt in the interior to obtain these species; virtually all subsistence pursuits on land were directed to the fringe of coastline around the islands.
Ducks and geese were hunted in the autumn by the Haida. Bird eggs, especially gull eggs, were collected from the rocks in June; Forrester Island in Kaigani territory was particularly famed as an egg collecting area (see Figure 1).

Although Murdock (1967) lists gathering as comprising one-quarter or less of the Haida diet, considerable flora was exploited by the Haida, and, in my analysis, was of greater significance than land mammals. The most important plant resources were the numerous species of berries, including salmonberries, strawberries, blue and red huckleberries, thimbleberries, gooseberries, red elderberries, currants, high and low bush cranberries, and salal berries. It is difficult to ascertain whether the berries were an ordinary part of the diet, or whether they represent a ceremonial food consumed primarily at feasts and potlatches as Suttles (1968) suggests for the Coast Salish. Wild crabapples were also a valued fruit; they and several species of berries were dried for winter use.

Seaweed, a particularly important Haida food, was collected from the end of April to the beginning of the last week in May. It was formed into cakes, mixed with clam juice, and dried under pressure. Other plants utilized by the Haida were the roots of the brown lily and lupine, the cambrium layer of spruce and hemlock, willow herb, and wild celery.

As indicated above, the months from March to November were largely devoted to subsistence pursuits, and during this period of time the Haida villages were almost devoid of people. In early March the men
went in search of fur seal and fished for halibut. In late April and early May seaweed was collected and the people headed for the sockeye streams. During the summer bird eggs were gathered, various species of salmon were fished as they began their spawning runs, and berries were picked as they ripened. Halibut continued to be sought throughout the summer and fall. In the late fall waterfowl were hunted, and the people returned to the winter villages in November after the dog salmon runs. Much of the food acquired during the spring, summer, and autumn was smoked or dried and packed away for domestic and ceremonial consumption during the winter. From late November through February the Haida spent most of their time in their winter villages. It was during these months of relative freedom from subsistence activities that potlatches and feasts were held.

While it is apparent that a variety of foods were utilized by the Haida and some readily available foods were minor or insignificant in the diet, both the literature and present day informants suggest periodic scarcity of food resources. Humpback salmon runs are predictably cyclical; every second year the run is small. But the availability of other subsistence items also appears to wax and wane. According to Masset informants, seaweed is plentiful only every other year, and an Alaskan informant said that when the spring salmon and halibut fishing were bad, the humpback salmon runs were good. Informants in both Alaska and the Queen Charlottes indicated that elderberries and salmonberries followed the same cycle of plenty and scarcity as the humpback salmon runs. At least one instance from the past of actual food
scarcity was related to me. A Hydaburg informant noted that a very long
time ago the bay froze over and the people from the village of Sakwan
could not get any food. From Masset came a story that was told to
children to caution them to be provident and industrious in the gathering of resources. They were told that during the winters when the snow was exceptionally deep, those people who had been lazy in collecting food during the summer had to tunnel through the snow to gather barnacle covered rocks. The rocks were heated and the barnacles which fell off were eaten. Summers of exceptional rainfall also resulted in some shortages, for under these conditions the berry harvest was poor.

Francis Poole (1872:316), visiting the southern Queen Charlottes in 1862, reported, "Frequently whole tribes will be reduced to starvation before the winter ends. Were it not for a few bulbs which they dig out of the soil in the early spring-time, while awaiting the halibut season, numbers of Indians really would starve to death." Interestingly, the period from about mid-January to mid-February was recalled by informants as "the time when everything's scarce" (see also Swanton 1903). The food scarcity noted by Poole is attributed by him to the improvident consumption of all the winter food stores at feasts. Swanton (1909) adds that a chief's prestige was increased immensely if he could call the people in for a feast in times of scarcity. Obviously, however, if the Haida could continue to engage in feasting throughout the winter, the possibility of starvation did not loom as an overriding fear. It is likely, however, that periodic fluctuations in resources, occasional improvidence in utilization of winter stores, and
local year-to-year climactic fluctuations produced lean periods for the Haida.

**Settlement patterns**

Swanton (1909:280-81) lists forty-six villages for the Northern Haida, a number of which were seasonal campsites and not all of which were contemporary. The villages for this division which do appear to have been contemporary permanent winter villages were: Tian, Kiusta, Yaku, Dadens, Tch'air', Kung, Yan, Uttewas (Masset), Kayung, Hiellen, Naikun (see Figure 1). For the Kaigani Swanton (1909:281-82) lists five contemporary permanent winter villages located on Long, Sakwan, and Prince of Wales Islands (Figure 1). These five villages were: Howkan, Koliandlas, Sakwan, Klinkwan, and Kasaan.

Haida villages were located in coves, bays, inlets, and in Alaska, along sheltered inland waterways. A number of factors entered into the selection of a village site: proximity of salmon streams, availability of shellfish in the immediate area, access to fresh water, strategic position in respect to defense. Dawson (1880) adds that villages were situated near halibut banks.

Houses in a Haida village were large square or rectangular red cedar plank dwellings. The gable end of each house containing the entrance faced the water. Located not far above the extreme high tide mark, the houses fanned out in a long even row along the shoreline.

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2 For the most part Haida village names are anglicized and reported as they appear on current maps. Proper names, clan and lineage names, and house names are given phonetically wherever possible.
In some villages there was a second row of houses. Haida houses were closely spaced; Duff and Kew (1958) note that houses at Ninstints village, in the southern Queen Charlottes, were built two to seven feet apart.

Swanton (1905) notes that the town chief, the highest ranking individual in a Queen Charlotte Haida village, constructed his house in the center of the village; this pattern was not characteristic of Kaigani villages, where the position of town chief did not exist. In both Northern and Kaigani Haida villages, houses of important people were also located on the flanks of the village.

Behind the first row of houses were burial poles and gravehouses containing the remains of the dead. Burial poles were also often situated between dwellings or at one end of the village. In front of each dwelling was usually at least one carved column or totem pole. Ranging up to about sixty feet in height, these red cedar columns displayed the carved animal figures representative of the Haida matriclans. The main pathway through the village threaded its way among the display of totem poles in front of the houses.

The Haida distinguished two types of totem poles, xat or mortuary poles and giáng, poles erected at the front of the house (frontal poles) or free-standing some distance away from the house. The former often had a niche carved in the back side to receive the remains of the dead. Xat also referred to poles merely erected in memory of the dead. Giáng were generally taller and had more figures carved upon them than xat. A frontal pole to a house often displayed the clan crests of both the
houseowner and his wife. Frequently, frontal poles and other giång had elements of Haida myths represented in their carved figures.

Figure 2 illustrates the two primary types of Haida houses. Type A is characterized by six or eight exterior roof beams which project beyond the front and rear walls of the house. The front and rear plates are mortised into four outside houseposts. Upper and lower plates in the front and back of the house are grooved for reception of the wall planks. The outermost roof timber on each side of the house is likewise grooved for the same reason. This type of house is most prevalent in the central Queen Charlotte Islands, where at Skedans, for example, it is the exclusive type of house. House type A is not found in the Kaigani villages.

House type B lacks the external roof beams and has four inside houseposts which support two long roof timbers. Again the front and rear plates are mortised into four outside houseposts. Running from front to rear are two side plates which are also mortised into the outside houseposts. Type B is found throughout the Queen Charlotte Islands and in Alaska where it is the most common type. House type B' is similar to type B with interior houseposts and roof timbers (sometimes numbering eight houseposts and four roof timbers). The long horizontal beam running the width of the front and rear of the type B' house distinguishes it from type B. Type B' occurs infrequently; it is known from the Kaigani villages of Kasaan, Koidalas, and Howkan, and from the

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3 Dr. George F. MacDonald (personal communication) notes that the plates and outside houseposts are often held together on type B houses by lap joints rather than by mortise and tenon.
Northern Haida village of Yan.

Very little is known about the actual step by step procedure of Haida housebuilding. We can only presume that the process and the units of measure (arm spans, widths of the hand, etc.) were similar to those described by Boas (1909) for the Kwakiutl and by Drucker (1951) for the Nootka.

The construction of a Haida house required the expenditure of a considerable amount of goods and an investment of a long period of time. Each segment of the housebuilding was followed by a potlatch (Murdock 1936) during which time the house builders were reimbursed for their services. The first segment of the house construction consisted of the selection of the house timbers and their transportation to the housesite. According to Curtis (1916) and Swanton (1909), each type of house timber was prepared only by a certain chief who had inherited the right to do so. The following autumn the tree for the frontal totem pole was selected, felled, and transported to the housesite where it was carved and raised. Yet another year passed before the house planks were cut from standing trees and the house itself completed. Thus, a minimum of two years were involved in the construction of a Haida dwelling. Considering the fact that a housebuilding potlatch represented the major expenditure in a man's life (Murdock 1936), not every man could afford to build a house. A man who did construct a house was recognized as a house chief (see Social Structure, below).

It is interesting to note, particularly in respect to house type B, that the internal support members were not conceptualized as the
FIGURE 2

HAIDA HOUSE TYPES

TYPE A
AFTER DUFF AND KEW (1958:49)

TYPE B

TYPE B'
house itself, because they were used over and over, often the original owner being forgotten. Sometimes an individual of a different clan and even moiety might take over a housesite and construct his new dwelling upon the frame of the old. The house of Anétwe of Masset, discussed in Chapter VII, represents such an example. Occasionally a frontal pole attached to the house was taken down and a new one raised in its place. Such a new pole was in the process of being carved when George M. Dawson captured it on film in the village of Tanu in the central Queen Charlottes during the summer of 1878 (photo NMC 242).

Population

The earliest reliable population figures for the Haida area are those of John Work, a Hudson's Bay Company factor commissioned to take a census of the Northwest Coast native population. This census was made between the years 1836-41 (Dawson 1880). Although the Northwest Coast tribes had experienced at least one smallpox epidemic in the previous century, this time period is still prior to the devastating smallpox epidemic of 1862 which reduced the British Columbia native population by one-third (Duff 1964), and it predates the frequent Haida migrations to Victoria. Venereal disease, first contracted through the prostitution of Haida women in Victoria in the 1850's, contributed to the later population decline.

Although the references cited are all late nineteenth century, the growth of village sites, the dying out of some lineages and clans, and the in-migration of new households and clans would appear to have been a continuous process.
Work mentioned thirteen villages on the Queen Charlottes (though it appears that several have been classified under the name of Masset\(^5\)) and six Kaigani villages (Dawson 1880). The total Alaskan Haida population given by Work was 1735 and the Queen Charlotte Islands population totaled 6693. Mean household size for all Haida villages was 16.2 ± 2.7 with a range of 13.0 - 24.4 (M. J. Blackman n.d.). It is likely that the population figures did not include slaves as they were part of a man's property. Following Murdock (1934b) and allowing an average of two slaves per household, the mean household size becomes 18.2 individuals.

Social structure

Pertinent to the chapters that follow is a brief consideration of Haida kinship, marriage, authority structure, and the integrative institution of the potlatch. All of these areas of Haida culture have been discussed and analyzed in detail by Swanton (1909) and Murdock (1934a; 1936).

The Haida were divided into two matrmoieties, Raven and Eagle, each of which was further divided into twenty-two and twenty-three named clans, respectively. Some of these clans were divided into named lineages. The smallest matrilineal unit was the "house". Found only among the Kaigani and resulting from Tlingit contacts, the

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\(^5\)He reports for Masset 160 houses and 2473 people (Dawson 1830: 173B), numbers entirely beyond the range reported for the other villages. Swanton (1909), whose ethnographic horizon is contemporary with Work's, lists only thirty-three houses for Masset.
house was a named, localized lineage segment whose members traced their origin to an actual, named house.

Each Haida clan controlled both corporeal and incorporeal property. Vested in the clan were rights to certain fishing streams, berry picking grounds, stretches of coastline, and tobacco patches. The clan members had exclusive rights to the resources from these areas, though after the group had harvested what they needed, Haida from other clans could, with the permission of the owners, utilize the resources from these areas.

Incorporeal property which the clan had a right to use and display included crest figures, mainly of animal form. These "crests", a few of which were common to all clans in a moiety and some of which were unique to particular clans, could be carved on totem poles belonging to members of the clan, tattooed on the bodies of individuals, carved or painted on household utensils, boxes, and feast dishes. Crest figures were also displayed on ceremonial garb and painted on spruce root hats. A repository of names was also the property of the clan, and names were handed down from generation to generation within the clan. Not only were personal names the property of the Haida clan but also house names, names for certain household implements, names for certain houseparts (particularly doors and housepit walls), and names for canoes. Songs, stories, and "secret society" dances were also

6 Though the Haida had a fishing-gathering-hunting subsistence base, prior to white contact they cultivated native tobacco (see Turner and Taylor 1972).
regarded as clan property. Upon a man's death his property, including his most important names, devolved upon his eldest sister's eldest son, whereas a woman's effects were handed to her eldest daughter. In the absence of a male heir, a man's sister's daughter could take his place, holding the position in trust for her own son. At least one such case is documented from the late nineteenth century at Masset (Blackman n.d.). Curtis (1916:118), however, suggests that this procedure was not traditional. He reports, "Only recently, and because of the depletion of the population, have women succeeded to the seats of nobility."

At the head of each recognized unilineal group, with the exception of the moiety, was a chief whose position was inherited in the manner described above. The clan chief was the trustee of the clan lands, and his permission was needed before others of different clans could utilize the resources of his lands. If the clan were subdivided into lineages, chiefs of these divisions were also recognized. The owner of a large cedar plank dwelling was a house chief, and according to Swanton (1909), his power over the household members was almost absolute. It was the house chief who decided when members of his household left the winter village for the fishing grounds, and he had the authority to call his sisters' sons together for warfare.

7Secret societies were introduced to the Haida and other northern Northwest Coast tribes in the eighteenth century through the Bella Bella. Among the northern tribes the secret societies were very attenuated versions of their expression farther south.
According to Swanton (1909), each Haida winter village was originally the dwelling place of only one clan, its in-marrying spouses, and their offspring. The clan names of the Haida suggest this, for many bear the names of their mythical towns of origin. Thus, there are the S'atsúkat'lá'nas (people of Sulch'ukún), the K'unlá'nas (point town people—people of Naikun), and Tch'aialá'nas (people of Tch'ai'). Through time, however, most villages came to have several clans represented among their householders. Masset, for example, by 1850 had houses owned by five different Raven clans and four Eagle clans. Klinkwan, on the other hand, even by this date was comprised entirely of Yak_uhlá'nas Raven owned houses.

Traditionally the clan chief was also the highest authority in the permanent winter village, though with the amalgamation of several clans in a town in the Queen Charlottes, the position of town chief evolved. This title was held by the highest ranking, wealthiest house chief of the clan that owned the townsite. In actuality, the position was occasionally held by a clan whose ancestral properties lay elsewhere. Such was the situation in Masset where, in the early nineteenth century, the town chief, a member of the Skádaok xo clan of the Raven moiety bequeathed his position to his son, a member of the S'atsúkat'lá'nas clan of the Eagle moiety, in obvious defiance of matrilineal precedence. The townsite of Masset was considered Skádaok xo land but the town chieftainship has remained in the hands of the S'atsúkat'lá'nas Eagles ever since.

Swanton (1909) notes that most questions regarding the interests
of the townspeople as a whole were decided by the town chief. Curtis (1916:119) reports, "Before undertaking anything of import, such as building a house or erecting a housepole or mortuary column, the individual first secured the consent of the town chief, whose approval of the crests to be represented on the poles, was required." Curtis adds that the town chief's consent was necessary before undertaking a war expedition. Murdock (1934b:238), however, denies the town chief any authority, stating, "No chief wields any actual authority outside of his clan." Informants from Masset indicated to me that while the town chief needed the support of the house chiefs of his village, he did wield a considerable amount of authority in respect to matters affecting members of the village.

According to Murdock (1967), bilateral cross-cousin marriage was practiced by the Haida with a preference for patrilateral. Swanton (1909:68) adds, "It was quite common for a man to marry the daughter of his father's own sister, the motive being to keep property within the same set of people. Murdock (1934a,b) and Curtis (1916) both note that an individual who is to succeed to his mother's brother's position as a chief, married his mother's brother's daughter or a relative belonging to that category. If his mother's brother should die, leaving a widow, the sister's son was expected to marry her.

Postmarital residence in Haida society was initially uxorilocal (for purposes of bride service) followed by avunculocal residence (Murdock 1967). A typical household, according to Murdock (1934b) included the owner (and house chief), his wife(s), his young sons and
unmarried daughters, a married daughter with her husband and children, a younger brother with his wife and children, married and unmarried sisters' sons, a poor relation or two, and a couple of slaves.

The potlatch

According to Murdock (1934b) the potlatch was the mechanism by which social status was both acquired and perpetuated. While other authors, Drucker (1967) in particular, deny the former function to the potlatch, Murdock (1934b) indicates that one's social position derived almost solely from the number and quality of one's parents' potlatches. Probably Murdock takes this position because children were tattooed and received names at potlatches given by one or the other of their parents. On the other hand, if an adult individual failed to give a potlatch in his lifetime, his status certainly suffered irrepairably. The achievement and maintenance of social status went full circle in Haida culture. An individual failed to acquire status if his parents did not give any potlatches, he failed to validate it if he himself did not give any potlatches, and after death, his status in life went unrecognized if his matrilineal heirs did not give a mortuary potlatch for him.

Murdock (1936) discusses in detail the structure and functioning of Haida potlatches. The Haida distinguished five types of potlatch: the vengeance potlatch to answer a challenge from a rival; the face-saving potlatch to wipe out an embarrassing event; the totem pole raising potlatch; the mortuary potlatch; and the house building potlatch. Of these, the last three were the most significant, and as previously
noted, the house building potlatch represented the major expenditure of a man's lifetime. With the exception of this latter potlatch, the distribution of property was from a man and his clan to members of the opposite moiety, first and foremost to those individuals who belonged to the host's father's clan.

Involving less expenditure of wealth and concomitantly conferring less prestige was the potlatch which followed the erection of a totem pole. The primary beneficiaries were, according to Murdock (1936), the children belonging to the host's wife's clan, and the pole raised often had carved upon it the clan crests of the host's wife and children. A year following the death of an important individual of either sex, a mortuary potlatch was usually given. This potlatch involved the raising of either a burial pole, into which the remains of the deceased were placed, or a memorial pole. The host and donor of this potlatch was usually the heir of the deceased if the latter were a male. In the case of a woman, her husband, in the name of her sister, raised the pole and gave the mortuary potlatch (Curtis 1916). Both Swanton (1909) and Murdock (1936) indicate that these three major forms of the potlatch were all accompanied by the initiation of individuals of the host's moiety into the "secret societies". It was during potlatches and at no other time that the secret society novices were initiated and that the dances were performed. At the housebuilding and pole raising potlatches, children of the host's wife's clan (i.e., a man's own children) had their noses and ears pierced, young girls received their first lip plugs, and individuals were tattooed and received potlatch names.
Field data from potlatches after the turn of the century indicated that the reciprocity involved in the potlatch complex was between the clans of the deceased and his father (see Blackman 1973).

Culture Contact and Change

Maritime exploration and trade, 1774-1834

By the mid-eighteenth century the Russians had explored the Alaskan coast as far south as Sitka Sound, and by the 1770's Russian fur traders had all but eliminated the sea otter population in the Aleutian Islands. News of the Russian explorations and the sea otter trade quickly spread to other countries. The Spanish, English, and French outfitted exploratory voyages to the Northwest Coast in the 1770's. By the 1780's American ships were on the Northwest Coast trading for the valuable sea otter pelts which they exchanged in Canton for china, silks, and tea.

Captain James Cook's well publicized voyage to the Northwest Coast in 1774-75 greatly stimulated the international race for the sea otter wealth. Quimby (1948) reports 130 ships trading for sea otter along the Northwest Coast between 1785 and 1795. Several accounts of these late eighteenth century voyages have survived in archives. Although the interactions of the early European and American traders and explorers with the Indians were superficial, these initial observations are important.

While we may never learn the breadth and depth of the effects of the maritime trade on the native cultures, Wike's (1951) intensive
study of this trade suggests that the impact of the fur trade on the Northwest Coast cultures resulted in an intensification of certain features of the aboriginal economy and social structure. The most observable changes in the native cultures were the increased amount of time devoted to pursuit of the sea otter and the eager reception and even demand for new items of material culture. Wike (1951) states that the fur trade fostered wide-spread barter, recurrent warfare, and differences of wealth within the Northwest Coast societies, characteristics already intrinsic to these cultures.

Captain Cook never sailed as far north as the Queen Charlotte Islands where the sea otters were the most abundant, but Juan Peréz, a Spaniard sailing the coast in 1774, first sighted the island group. Peréz and his men encountered Haida at North Island in the Queen Charlottes and at Cape Muson on the southern tip of Dall Island in Alaska. George Dixon, an Englishman who gave the Queen Charlottes the name they now bear, was, in 1787, the first to trade with the Haida for sea otter pelts. The goods exchanged on this occasion by Dixon for furs were "iron toes", iron pieces with a cutting edge, fashioned by the Haida into adzes. Continuing along the north coast of Graham Island, Dixon acquired a total of 1,821 sea otter skins on this journey (Miller 1967). Following Dixon's successful voyage, there were always a number of trading ships in the vicinity of the Queen Charlottes during the summer months, the time of year when gales and rough seas were at a minimum.

All of the earliest contacts with the Haida were peaceful, both sides entering eagerly into the exchange of goods. The Americans were
quick to cash in on the riches of the maritime trade. In 1788 an American by the name of Robert Gray in the *Columbia* appeared off the coast of the Queen Charlottes. Gray continued northward, encountering Kaigani Haida at Kasaan Bay (Gunther 1972). According to Howay (1920), Gray was the first to show the Haida how to cultivate the potato.

It was the Englishman Captain Douglas in 1789 who first set foot on the Queen Charlotte Islands, exchanging names with the chief of Kiusta and aiding in the raising of a totem pole there. Importantly, the earliest traders' accounts of the Haida villages, although brief, clearly indicate the presence of the very large cedar plank dwellings, totem poles, and the elaborate and sophisticated Haida material culture at the time of first contact and before the wholesale introduction of iron tools (see, for example, Snow 1925; Howay 1920; Marchand 1801).

Wike's study of the maritime fur trade (1951) gives an indication of the variety of material goods introduced into Haida culture during the nearly half century of the maritime trade. Included in the list of goods are the following: IRON (iron bars, iron toes, knives, chisels, axes, swords, spikes, nails, gimlets); UTENSILS (tin kettles, brass pans, iron pots, pewter basins, copper dishes and tea kettles, pots and frying pans, cutlery); SEWING EQUIPMENT (thread, scissors, pins, needles, thimbles, buttons); CLOTH AND CLOTHING (broadcloth, scarlet and blue woolen cloth, blankets, greatcoats, jackets and trousers many of which were military, caps, stockings, shoes and boots, women's smocks); ORNAMENTS (iron collars and bracelets, beads, earrings, 'bangles', necklaces, mirrors, feathers, lace); WEAPONS (muskets,
blunderbusses, shot, powder); FOOD (pilot bread, sugar, rice, molasses); VIRGINIA TOBACCO; RUM; OTHER (grindstones, files, abalone, brass bells, chests, leather trunks, sheet copper).

One factor which contributed to the variety of goods traded for furs was the selectivity on the part of the natives. Demand for particular types of goods fluctuated from year to year, and the early mariners believed they were at the mercy of the whims and fashion of the natives. Howay (1920:21), writing of the tribulations of Joseph Ingraham, commander of the Boston ship Hope who was at Cloak Bay on North Island in 1792, states:

Only one skin would be given for a collar; the clothing was scarcely looked at; table spoons, which in the preceding year would hardly be accepted as a gift, were now the one thing the natives wanted....Articles regarded as most valuable a few months before were now despised. Copper, which during the last year had never been asked for, was now in demand; but when Ingraham did produce his copper sheets they were too thin to suit the exacting taste of these changeable people. They asked, too, for heavy leather to make coats of mail and strangely enough, for a variegated shell of green and white, a species of pearl.

After the turn of the nineteenth century the maritime fur trade began to decline sharply. This fact is not surprising as within a thirty year span over 100,000 sea otter furs had been collected from Northwest Coast waters (Miller 1967). By 1830 the trade in sea otter was nearly defunct, but by this time a new commercial concern appeared on the Northwest Coast to replace the earlier sea trade.

The land fur trade and the Hudson's Bay Company, 1834-c.1875

In respect to Haida ethnology the year 1834 is an important
one, for in this year the Hudson's Bay Company established its Ft. Simpson post at the mouth of the Nass River. The post was patronized by the nearby Tsimshian tribes along both the Nass and Skeena Rivers, by the Queen Charlotte and Kaigani Haida, and by the Tlingit to the north of the Kaigani Haida in southeastern Alaska. The post records which have survived in the Hudson's Bay Company Archives date from 1849 to 1866. These records from Ft. Simpson, although they do not indicate they type of items the natives were receiving in return for their furs, do reveal something of the quantity and variety of furs traded and they are informative in respect to the seasonal round of trading. Records from the post during the 1855-56 year indicate that in addition to land otter, bear, marten, mink, and a few sea otter furs, herring spawn, dried halibut, and potatoes were traded by the Haida. The post records also show that at this time Haida canoes were making regular runs to Victoria in the south and were travelling at least as far north as Sitka, Alaska. The only indication of any goods traded out of the post is the mention of California rice which the Hudson's Bay Company factor noted the natives did not like. The pattern of intensive late spring and summer trade, characteristic of the maritime trade period, continued with the establishment of the Ft. Simpson Hudson's Bay Company post. From the Ft. Simpson post only sporadic trade with the Queen Charlotte and Kaigani Haida occurred during the stormy winter months.

Trading ships still appeared in the waters about the Haida villages. Early in the history of the land fur trade on the Northwest
Coast, the Hudson’s Bay Company found itself in competition with American and Russian traders who kept mainly to Alaskan waters. The latter undercut the business of the Hudson’s Bay Company by offering higher prices for furs. From 1835-40 the Kaigani trade was contested, and the Hudson’s Bay Company took to the waters to compete with the American and Russian sea traders.

During the fur trade period, Haida had contacts with white trading factors, ships’ crews, and by the 1850’s, with whites in Victoria. The prostitution of Haida women became a source of capital for potlatching, and even the Kaigani sent their women south to Victoria for this purpose.

It was during the land fur trade period that premonitions of Christianity diffused to the Haida in the form of a revitalization movement. The Plateau prophet dance, which had its origins in the aboriginal culture of the interior Salish but which incorporated ideas of an imminent great change involving elements of Christianity, spread west to the coast and northward to the Athabaskans. From the Bulkley River Carrier the movement spread down the Skeena in the 1840’s to the Queen Charlotte Islands (Suttles 1957). About ten years before this time a Methodist missionary named Jonathan Green sent a letter to the chief of Skidegate village, informing him of missionaries and Christianity. Green visited Skidegate in 1829, sailed up the east coast of the Queen Charlottes and then went to Alaska where he anchored in Kaigani harbor on Dall Island and met with two Kaigani chiefs, “Sankart” (Soniihat?) and Kowe (Green 1915).
It is likely that sometime after Green's visit elements of Christianity were recorded in the oral tradition of the Haida. One such account from Masset was collected in the winter of 1970-71. According to two informants, a large number of people had gathered in the house of Weah, the town chief of Masset, when one of them saw on the back wall of the house a vision of Christ. Two stories collected in Alaska also foretold of great changes that were to come, but their content suggests that the period of time referred to is that of the maritime fur trade when the first items of Anglo-American material culture were introduced. One old man from Hydaburg told of a shaman who at death was placed inside a square of logs and covered with a cedar bark mat. He had told everyone that when he died they were to watch his body; one day the mat was removed and there were shoes on the shaman's feet. A similar story was told of a man who died within a house; the house was boarded up and later opened only to reveal the same man dressed in white man's clothing, a warning to the people of what was to come.

During this second period of Haida ethnohistory, native crafts began to be produced in quantity as curios, a consequence, according to Duff (1964), of the declining supply of valuable sea otter furs available for trade. Green (1915) noted at Skidegate the manufacture for sale of both spruce root hats and argillite pipes. It has been stated by several authors (e.g. Duff 1964; Gunther 1956) that the carving of argillite (a carbonaceous shale found only near Skidegate) evolved during the early maritime fur trade period and that these items were meant strictly for the tourist trade. Recent work by Fladmark (n.d.),
however, suggests that argillite pipes were manufactured traditionally by the Haida for domestic use.

The period of Haida ethnohistory dominated by the presence of the Hudson's Bay Company also marked the earliest exploratory voyages by Canadians to the Queen Charlotte Islands in search of potential resources. Francis Poole, investigating the possibilities of establishing coal mines on the Islands, recounts his visits during 1862-64 to several Haida villages (Poole 1872). Poole did not travel north of the Central Haida village of Cumsheva, but he relates informative material on Haida houses, on gambling, on dress, and on the prostitution of Haida women in Victoria. It was during Poole's visit that the most devastating smallpox epidemic was experienced by the Queen Charlotte Haida. Introduced by Haida who had contracted the disease in Victoria, the epidemic severely diminished the population of the Queen Charlottes but did not affect the Kaigani. An earlier smallpox epidemic in 1836 spread from the north down the mainland coast to Ft. Simpson but was contained there and did not, as far as we know, affect either the Haida on the Queen Charlottes or in Alaska.

In 1869 the Hudson's Bay Company established a small trading post at Masset. Not as well stocked as the Ft. Simpson post and charging more for its supplies, the post was in operation until 1898. Whether or not the Masset post affected the migratory patterns of the

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8 Sometime around 1870 independently owned trading posts were established at the Kaigani village of Howkan and in Karta Bay near Kasaan.
Haida to Ft. Simpson is difficult to determine, for no records survive from the Masset post and the Ft. Simpson material available to researchers dates only to 1866. We do know, however, that the Haida continued their traditional trade with the Coast Tsimshian from the Ft. Simpson area up until at least the turn of the century, exchanging canoes and potatoes for eulachon oil. These trading patterns are mentioned by missionaries and Indian agents. In respect to the Masset Hudson's Bay Company post, an indication of the type of goods stocked comes from a letter written by the missionary Charles Harrison in 1886. Harrison (n.d.d) mentions lumber, nails, windows, shingles, doors, coal, and a number of foodstuffs including rice, flour, sugar, tea, coffee, jam, and bacon. Although we cannot be sure that all of these items were carried ten or more years earlier, they were probably stocked in 1878 as George M. Dawson's photograph of Masset from that year (photo PA 38149) shows houses with milled siding, windows, and doors.

In 1867 Alaska was purchased by the United States and the Russian-American Company gave up its trading rights in the area of southeastern Alaska. The disappearance of the Russian traders may have had some effect upon the Kaigani Haida, but the acquisition of Alaska by the United States did not directly affect the Kaigani for several years. In 1871 the colony of British Columbia became confederated with Canada and the management of Indian affairs passed to the Dominion government. A Commissioner of Indian Affairs was appointed but he did not visit the Queen Charlottes until 1881, and it was yet another year before the Indian lands question had any relevance for
the Haida. More wide-reaching in its ultimate effects was the begin-
ning of an era marked by the arrival and permanent settlement of the
first missionaries. On the Queen Charlottes the year was 1876, and in
Alaska, 1881.

**Missionisation and Forced Acculturation, 1875-1900**

In 1873 William H. Collison was sent from England to assist the
well known missionary William Duncan at Metlakatla, A Tsimshian mission. However, after contact with some Haida who visited Metlakatla, Collison requested permission from England to carry his mission to the Queen Charlotte Islands. In 1876 he and his family arrived in Masset. Here Collison occupied an abandoned fur storage hut owned by the Hudson's Bay Company. He purchased an abandoned traditional Haida house which he converted into a church. By 1878 when George M. Dawson photographed the village of Masset, the missionary had a large domestic complex built upon the old beach ridge several hundred yards behind the native houses (photo PA 44332).

The most salient and alien features of Haida culture drew Col-
lison's immediate attention and disapproval. In his first letter to
England he comments on the mortuary practices of the Haida. Speak-
ing of the burial poles, Collison (n.d.a) states:

> These receptacles of the dead are in many places from 40 to
50 and 60 feet in height and proportionately thick. In many of
these there are whole families encased, and as many of them
are old and decayed, they often fall to pieces scattering the
remains on the ground....So numerous are these relics and
remains of the dead all around...the atmosphere is tainted
with the smell.
Traditionally at death an important Haida individual was attended to by members of his father’s clan. The body was painted and placed in a flexed position in a box. The box containing the corpse was put in the rear central portion of the house just behind the fireplace. Surrounded by his most important property, the deceased lay in state for three to ten days. The body was then removed from the house and placed in a clan gravehouse. Commoners were put in coffins which were then placed behind the houses and covered with leaves.

In his initial letter to the Church Missionary Society in England, Collison adds that he hoped to induce the Haida to inter the dead in ground specifically set apart for that purpose. The missionary staked out a cemetery to the north of the village, and in the winter of 1877 he persuaded the relatives of a chief who had just died to refrain from painting the corpse and to place it in a prone position. Collison (n.d.b) relates that the remains of this chief were the first to be interred in the Masset cemetery. It was some years after Collison’s mission before corpses were taken to the mission church for funeral services, and during Collison’s residence there were some Haida who refused to accede to the new custom of burial, pledging instead to raise burial poles. The Rev. Charles Harrison who came to Masset in 1882 (following the tour of duty of George Sneath, 1879–1881) was the first missionary to persuade the Haida to purchase tombstones. Even with this accomplishment, Harrison implies that the raising of mortuary poles had not been entirely obliterated when he writes, "...to prevent the erection of obituary gehangs /giäng/ and
the distribution of blankets I have advocated the erection of tombstones which must be paid for beforehand" (Harrison n.d.b). The implications of forced acculturation in Haida mortuary practices are the subject of a separate paper (Blackman 1973).

W. H. Collison (n.d.a) remarked on the great number of totem poles in front of the houses and lamented that in the erection of the poles a tremendous amount of property was given away. According to Collison (n.d.a), the Methodist missionary Thomas Crosby at Ft. Simpson on the Nass succeeded in forcing the Tsimshian to cut down their totem poles and destroy them. Though some older Masset people stated to me that the missionaries forced the Haida to cut down their poles, examination of the seriated photographs of Masset from 1878 to 1900 does not support this.

Schools were instituted by the Masset missionaries and together with church services and meetings were, at the behest of the Haida, conducted in English. The missionaries regarded the Haida insistence on holding school and church services in English and not Haida as a progressive step on the part of the Indians. This seems more likely a conservative measure adopted by the Haida to keep separate and distinct the culture of the missionaries.

By 1886 Masset had a new church building built with Haida labor but with a minimum of Haida capital. Harrison (n.d.c) related to England that the Haida were too poor to contribute much towards the cost of the church, but he neglected to mention that the resources of the people were being channeled into the potlatch instead.
George Sneath, missionary to Masset from 1879-1881, said of the potlatch, "The greatest drawback to the work here are the distributions of property" (Sneath n.d.). Various approaches were taken to suppress the potlatch. Collison went to several of the most influential chiefs exacting promises from them not to participate in potlatching, and at the same time he tried to alter the potlatch by introducing Christian elements into it. Writing of his success in this latter approach, Collison describes the prelude to a Masset potlatch in the winter of 1878:

...the usual custom of dancing with painted faces and naked slaves with their bodies blackened casting property into the water was dispensed with and instead I had trained about 100 adults and children to sing the anthem, "How Beautiful Upon the Mountains". All were dressed and clean both on shore and in the canoes and after hearty cheers the visitors disembarked and were conducted to the various houses which were to receive them. The unanimous opinion of all was that the new and Christian welcome was far superior to the old heathen custom (Collison n.d.c).

Though the missionaries worked toward the obliteration of the potlatch at Masset, they do not seem to have tampered much with Haida feasting. Rather, because of the pattern of speechmaking at Haida feasts, the missionaries viewed these occasions as particularly opportune for proselytizing. Harrison (n.d.a), for example, wrote in 1884, "I have attended about sixty of their feasts and have always made them sing the well known grace before meals...and after meals. I have always given a short address and tried to make them understand what God desires all good people to do."

Cast in their own terms, the ability of the missionaries to effect change in Haida culture seems impressive, but some of the alter-
atations were superficial, while others appearing in Haida culture were directly the result of demographic changes. At the same time, much of traditional Haida culture continued away from the watchful eyes of the missionaries. The alterations effected in the mortuary complex, including the substitution of tombstones for mortuary poles, the introduction of burial, and the alteration of the mortuary potlatch seem quite radical changes. Yet it is quite clear that tombstones continued to function as mortuary poles, and the reciprocities between matrilineages which underlay the entire structure and functioning of the potlatch have continued to the present day.

Demographic pressures helped effect changes in Haida culture which were approved by the missionaries. The population had declined in Masset so severely as a result of the 1862 smallpox epidemic that by 1895 the largest house in the village containing almost 3000 square feet housed only eight people, four of whom were slaves. The adoption of nuclear family dwellings was imminent with the population decline. The construction of the large traditional houses required the concerted effort of a man's clan and other clans of his moiety, while the collection of wealth to distribute at the potlatch which followed fell to the man's wife's clan. By 1882 the clan of the town chief of Masset, one of the larger clans, contained approximately seventy individuals, only a portion of whom must have been able-bodied adults. Some of the smaller clans in Masset had died out by this time. Thus, the resource collecting base had been critically diminished by the 1880's, and many clans were too small to amass the material necessary for the
sustained housebuilding potlatches.

The population decline also resulted in the abandonment of the numerous villages along the northern coast of Graham Island. Drawn especially by the trading ships that came into Masset Harbour and by the presence of the Hudson's Bay Company post and probably also by the Anglican mission, the refugees from these villages congregated in Masset soon after the arrival of the first missionary.

White-style nuclear family dwellings (called Yəts hāide na, "white man's houses") began to be built in the late 1870's at Masset. In 1883 Judge James G. Swan (n.d.b) reported eighteen white style houses, and within five years after the turn of the twentieth century the last traditional house had disappeared from Masset.

Many of the culture traits disapproved of by the missionaries continued when the Haida were absent from the permanent winter villages. Virtually half the year the Haida were engaged in subsistence activities which took them away from Masset. During this season there are documented accounts of potlatches being given at north coast villages away from Masset where the missionaries were based, and informants mentioned feasts and potlatches which took place at abandoned village sites as late as the first decade of the twentieth century. The missionaries recognized some of what transpired at these places, for Sneath (n.d.) lamented that the medicine man was carrying on his traditional role at the summer camp sites. In some cases the missionaries attempted to visit the summer camp sites, but Harrison (n.d.a) states, "When they are scattered about in places of
great distance from Masset it is impossible to look after them." Thus, our information about what was going on at the summer camp sites is incomplete as very little is recorded in the ethnohistorical literature.

While the reports of the North Pacific Mission show a steady increase in the number of catechumens and baptised, Rev. J. H. Keen (n.d.a) writes as late as 1893, "I regret to say the spiritual ebb of the mission as a whole at present is at a very low ebb." The following year he adds (Keen n.d.b), "Stolidity, waywardness, and fickleness abound and at intervals superstition raises its ugly head from the dust in which we thought it safely buried."

Unfortunately, records kept by the Presbyterian missionaries who were sent to the Kaigani Haida are much less informative than the Anglican ethnohistorical materials. Only one village, Howkan, had a resident missionary in the nineteenth century, and the village of Kasaan escaped any direct missionary pressure until after the turn of the present century and the abandonment of the traditional village for New Kasaan. Native Haida ministers were ordained by the turn of the century, and they continued the work of the mission at Howkan and established a church at Klinkwan. Schools were begun by the Presbyterians at both Howkan and Klinkwan.

In 1881 Rev. J. H. Chapman was sent to Howkan to establish a Presbyterian mission, and while Chapman was still resident in Howkan, Rev. J. Loomis Gould was sent to take over the Howkan mission. There is no significant correspondence from Chapman in the Presby-
terian Historical Society archives and only a few letters from Gould.

By 1882 Gould reports several Christian marriages and remarks on
the popularity of white style houses. A mill was constructed near
Howkan, but from Gould’s letters, it seldom appears to have been in
operation. Regarding housebuilding, Gould (n.d.a) notes:

I am sorry the mill can not afford lumber now, they go to the
woods split puncheons and adze them to shape that they want,
the houses are alike, look well, and the people are as proud
of them as Boston Houses, and many visitors here, say they
will build Boston Houses here as soon as the mill will give
them lumber.

Gould adds that upon completion of the "Boston Houses" the
housebuilding potlatch now did not include the initiation of indivi-
duals into the secret societies, but that "feasting and giving" took
place and were "conducted mainly in an orderly, and to their mind,
fair manner" (Gould n.d.b).

Like his Masset counterparts, Gould was concerned about what
transpired when the Haida were absent from the winter village. His
daughter, Clara, the village school teacher, lamented (Gould n.d.),
"If we could only give them work to keep them right here, more good
could be accomplished". Rev. Gould partly solved this problem by
setting up a temporary residence at Kaigani, a summer camp where both
Haida and Tlingit gathered to hunt seal.

On the other hand, Gould seemed not particularly bothered by
potlatching, a feature of Haida culture which the Masset missionaries
labored to eradicate. In respect to the celebration of Christmas in
1883 at Howkan, Gould (n.d.c) relates that the Haida had "...had
their fill of fun and exhausted their resources in feasting and
giving…. But the time has not all been given to the frolic. Services at church have been well attended, funerals and weddings orderly and impressive." Gould, in fact, even used the mechanism of the potlatch to enhance his own status. He relates in 1884, "/we/ have sometimes to furnish canoe and other items with small 'potlatches'. not mentioned of course it is a great boon to us" (Gould n.d.d).

During Gould's tenure the village of Howkan in the winter became the gathering place for people from the villages of Klinkwan, Koilandlas, and Sakwan. Natives from other villages and even other tribes collected in Howkan. In January of 1884 Gould (n.d.e) reports that natives from the Queen Charlotte Islands, Sitka (Tlingit), and Ft. Simpson (Tsimshian) came to Howkan as a place of refuge. As Gould's letter indicates, there was continual interchange between the Northern and Kaigani Haida during the late nineteenth century.

Even before the arrival of missionaries, government affiliated agencies expressed an interest in the Haida. In 1875 Judge James G. Swan was sent by the United States government to the Kaigani and Tlingit villages for the purpose of procuring "articles of Indian manufacture for the Centennial /of the United States/ Exposition" (Swan n.d.a). On this trip Swan visited Howkan, Klinkwan, and Kasaan. Although he did not personally go to the Queen Charlottes Swan gave the purser on the Hudson's Bay Company's ship sailing for Masset a memo to purchase articles for the Centennial.

The first important contact the Queen Charlotte Haida had with an agent of the Canadian government occurred in 1881 when the Dominion
government sent Indian Commissioner Israel Powell on a tour of the coastal British Columbia Indian villages. Powell spent only a short time on the Queen Charlottes and does not even recount this portion of his trip in his report (Canada. Department of Indian Affairs, 1881).

We know of his visit primarily from the photographs taken by Edward Dossetter who accompanied Commissioner Powell. It is interesting to note that the photographic record of Haida culture closely parallels the interests of the provincial and Dominion governments of Canada and the United States government in Haida territory. The photographic record of the Haida is chronologically traced in Chapter IV.

The year following Powell's visit to the Queen Charlottes, Indian Reserve Commissioner Peter O'Reilly visited the islands and together with the Haida chiefs began staking out a number of small reserves. The allotment of these reserves and the restriction of Indian land rights solely to these areas was not formally recognized until the McKenna-McBride Agreement of 1916. Through this agreement the Northern Haida were allotted sixteen reserves totaling only 1240 acres. The Kaigani Haida have never been reserve Indians but were consolidated under federal government pressure into two villages (Hydaburg and New Kasaan) after the turn of the present century.

During the late nineteenth century the Province of British Colombia was divided into two administrative units for the management of Indian affairs. The Queen Charlotte Islands were part of the Northwest Coast Agency, and the agent for this area resided at Metlakatla on the mainland. A petition from white and native residents of Masset
sent in 1891 to the Department of Indian Affairs in Ottawa requested a resident agent for the islands. Undoubtedly the letter was the idea and product of the white settlers who persuaded the natives, all of whom but one could neither read nor write, to add their X's to the petition. The request was denied. Agent Charles Todd in Metlakatla seldom visited the Queen Charlottes, and Charles Harrison, former missionary at Masset, wrote to Ottawa from Masset in 1899 that Todd had recently visited the islands for the first time in four years. During Todd's visit, Harrison complained, the agent saw only about one quarter of the people as the majority were away salmon fishing. Harrison (n.d.e), pleading for a resident Indian agent and suggesting himself as the logical candidate, adds, "During the eight months when the Haida are resident in their village they cause a great deal of trouble." It was not until after the turn of the twentieth century that Masset received its requested Indian agent.

Commercial interests in the Northwest Coast are reflected in the numerous canneries and salteries established there in the 1870's and 1880's. The arrival of the canneries on the coast marks the beginning of wage labor for the Indians and the regular summer migrations of the Haida to work in these canneries. Steamers of the Alaska Steamship Company served many of the canneries, delivering mail and picking up freight; even more important in respect to Haida ethnography, these steamships brought the first tourists into the area.

Official visits to the Queen Charlottes in the 1880's were prompted
by scientific interests, the search for natural resources, and the push to add the disappearing material culture of the native Americans to museum collections. George M. Dawson, who arrived on the islands in 1878, was sent by the Dominion government to undertake the first geological survey of the Queen Charlottes. His role as the first photographer of the Haida villages is of particular significance to the present study. Five years later, Judge James G. Swan was sent by the Smithsonian to the Queen Charlottes in order to "...obtain specimens of Indian manufactures, and of Natural History, for the Bureau of Ethnology, the United States Fish Commission, and National Museums..." (Swan n.d.b). On the Queen Charlottes Swan met up with James Deans, sent there by the Dominion government of Canada for the same purpose. Swan's record of his 1883 trip to the Queen Charlotte Islands is a valuable source of ethnohistorical data.

In 1884, the year following Swan's and Dean's expeditions, Newton Chittenden was sent to the Queen Charlottes by the provincial government. He was charged with exploring the islands and reporting on the potential of the Queen Charlottes for settlement. Accompanying Chittenden was the photographer Richard Maynard, who took a large number of photographs of Haida villages.

The United States Centennial and the 1893 World's Columbian Exposition had stimulated considerable interest in American Indian cultures. Many traditional Haida artifacts were collected for the Exposition. Charles F. Newcombe of the Provincial Museum in Victoria was probably the single largest collector of Haida material culture.
He purchased Haida artifacts not only for the British Columbia Provincial and the Dominion Museums of Canada, but for several museums in the United States. A frequent visitor to both the Queen Charlotte and Kaigani Haida villages, Newcombe filled several notebooks with ethnographic data on the Haida. Newcombe was a prolific photographer and many of the later photographs of Haida villages were taken by him.

Newcombe was one of the members of the Jessup North Pacific Expedition financed through the American Museum of Natural History in 1897, directed by Franz Boas, and undertaken for the purpose of investigating the history of the tribes of the North Pacific Rim area. Another important member of the expedition was John Reed Swanton who spent the 1900-1901 year on the Queen Charlotte Islands gathering data for the only ethnography of the traditional Haida that has ever been written. While Swanton's *Contributions to the Ethnology of the Haida* (1909) is not what today would be considered a well-rounded ethnography, being most noticeably deficient in the areas of material culture and subsistence economy, this work is noteworthy for its compilation of all the clan and lineage groups, chiefs, villages, and houses within these villages for the Queen Charlotte Islands and Alaska. Representing no small task, Swanton's "Families of the Haida" (Swanton 1909) records a considerable amount of information on village social structure, historical relationships among clans, chieftainship, totemism, and land ownership.
Conclusion

Swanton's visit to the Queen Charlotte Islands at the beginning of the twentieth century draws to a close this discussion of Haida ethnohistory. This chapter has presented a sketch of traditional Haida culture and traced the most notable changes in Haida culture through three periods, each reflecting differential contacts with Anglo-American culture. During the first period there was an influx of new material goods which were effectively incorporated into the traditional culture; subsistence pursuits were somewhat affected as considerable energy was devoted to hunting sea otters for the maritime trade. The establishment of the Hudson's Bay Company posts brought a constant supply of readily available Anglo-American material items to the Haida. This period also marked the beginning of the population decline with the introduction of smallpox and venereal disease to the Haida. By far the most radical and wide-reaching changes in Haida culture occurred during the third period. The twenty-five years from 1875 to the turn of the century witnessed the establishment of the missions, the disappearance of most forms of potlatching, the adoption of nuclear family dwellings, the beginning of wage labor, the establishment of schools, the congregation of outlying populations in a few major villages, and, on the Queen Charlottes, the division of Haida territory into a number of small reserves. It was during this final period of Haida ethnohistory that scientific interest in the native American cultures was expressed and an attempt made to reconstruct the traditional cultures that had all but disappeared.
Contemporary Northern and Kaigani Haida culture is presented in the next chapter preparatory to a discussion of ethnohistorical field research.
Today the Haida people are located in two villages on the Queen Charlotte Islands and one in southeastern Alaska. In addition, many Haida have left these villages for the metropolitan centers of Vancouver and Seattle, and for the smaller cities of Ketchikan and Prince Rupert. Skidegate village, on the southeastern shores of Graham Island in the Queen Charlottes, has a population of about 450. Like Masset to the north, Skidegate is built upon the site of a traditional Haida village, and in the latter part of the nineteenth century it became a relocation area for remnant populations from Central and Southern Haida villages. Masset, with approximately 800 inhabitants in 1970, encompasses the area formerly occupied by the traditional villages of Uttewas (Masset) and Kayung (see Figure 1). As noted in the preceding chapter, Masset also experienced an influx of people during the latter part of the nineteenth century. The third Haida village, Hydaburg, situated on the west coast of Prince of Wales Island in southeastern Alaska, was settled in 1911 by Haida people from Howkan and Klinkwan. An incorporated town and not a reservation, Hydaburg has today a population of about 250 people. This town was not the site of any known traditional Haida village.
I selected Masset as the village in which to conduct the fieldwork portion of my ethnohistorical research for several reasons. Drucker (1958) remarked that the patterns of adjustment to modern Anglo-American culture are very different in Masset and Skidegate. Correspondence with others who had worked on the Northwest Coast suggested that the Skidegate people were more acculturated than the Masset Haida. On the basis of this information, Masset seemed the more logical choice for ethnohistorical research. Field research on the Queen Charlottes, however, indicated that differential acculturation bore no relationship to the quantity and quality of information retained about the past in either village.

A second and more sound reason for choosing Masset, particularly as opposed to Hydaburg, was that the contemporary houses in the former village were built upon traditional housesites. It thus seemed plausible that the history of individual housesites could be traced back to the time of the earliest photographs of the village.

Before going to the field I had begun an intensive study of the history of one traditional Masset house and its owner (see Blackman 1972), and fieldwork in Masset offered the opportunity for completing this case study.

I decided to undertake comparative research in Hydaburg for entirely different reasons. Most importantly, the Alaskan or Kaigani Haida have been overlooked in the literature or have been noted merely as an afterthought. Furthermore, there existed an abundant but poorly documented photographic record of four abandoned Kaigani villages and
these village sites were easily accessible from Hydaburg.

In the pages that follow the villages of Masset and Hydaburg are described, my participation in village life and my fieldwork methods are detailed, continuities with the past are discussed, and a profile of the ethnological data gathered during the 1970-71 year is presented.

Masset

The village

The village of Masset\(^1\), located within Masset Reserve No. 1, is one and one-half miles north of the town of New Masset, a predominantly white village of about 800 people. To the east of New Masset a Canadian Forces base has swelled the local population of the New Masset area by some 180 houses completed during the 1971-72 year. The village of New Masset contains all the shops and services for both villages. A seaplane anchorage and government wharf are located here, and the fishing fleets of both villages anchor at the Delkatla Boat Basin in New Masset.

A dirt road which was paved in the spring of 1972 runs from New Masset along the edge of Masset Harbour to the Indian village.

Brightly painted bungalow and ranch style houses line this main road.

\(^1\)The official name of Masset has been changed to "Haida". Many Haida resent the change and the Indian village is usually still informally referred to as Masset. New Masset is officially known as "Masset". In this study, the traditional usages, Masset and New Masset, are retained.
facing the water. In May of 1971 there were 110 occupied houses in Masset which stretched in a line from almost the southern extremity of the reserve for two miles north. The village has expanded gradually southward beyond the original limits of Uttewas to encompass the old village site of Kayung. About a mile north of the southern boundary of the reserve is the Band Council Office. Another half mile north of the council office is a large hill which marked the original southern limit of Masset or Uttewas. Once a fortified hill, Idjae now contains the village water tower and one house. Beneath the hill on the beach side of the road is the Masset Community Hall. The village extends for another half mile north of the community hall. In this section of Masset there are several rows of houses and secondary streets. At the end of one of these streets is the Anglican church, and just to the north of the church on the old beach ridge is the health center for the reserve. Between the first row of houses in the north end of the village and the beach ridge at the back of the village area are a kindergarten and playing field. The school building stands on the site of the former Hudson's Bay Company post. At the northern limit of the village the main road swings east and then north again leading to the Masset cemetery about a half mile away. Just where the main road turns east to the cemetery is the village wharf, no longer used and falling into disrepair.

Many of the houses in the village are built upon sites in use in the nineteenth century and before, and most houses today, as traditionally, are oriented towards the water. Inheritance of housesites
appears to be in the process of changing from matrilineal (mother’s brother-sister’s son) to patrilineal (father-son).

The introduction of Anglo-American style housing began in the 1870's. The earliest of these new houses consisted of one or, at most, two large rooms. After the adoption of white style houses feasts and potlatches continued to be held in the homes, and a decisive factor in determining the final size of the "front room" was the projected size of the guest group on such occasions. It was considered most desirable to be able to construct a front room large enough to hold the population of the entire village. Prior to the introduction of the uniform Department of Indian Affairs housing about ten years ago, houses were built around a large central room used for entertaining the villagers. Such large front rooms can yet be seen in many of the contemporary Masset houses.

Arrival

A letter addressed to the Chief Councillor of the Masset Band explaining my project and requesting permission to do research on the reserve had preceded my arrival in the village by several weeks. The question of social sciences research on Indian reserves in British Columbia, as in other areas, invokes serious ethical issues. In recent years there has been a steadily increasing number of anthropologists studying the Indian cultures of British Columbia. The response on the part of the natives to being frequently "studied" has not been favorable, for they are particularly sensitive about how they and their villages are viewed by the critical eyes of the larger
society. The continued interest in things "Indian" by amateur stu-
dents and devotees of Indian cultures has swelled the traffic of out-
siders onto the reserves and resulted in the publication of popular
books (e.g. Harris 1966; Carter 1968), occasionally at some profit
to the author. Consequently, many of the Indian people classify all
those who write on their cultures as individuals set on making a
profit at the expense of the native people.

Nonetheless, while there is a growing distrust of researchers,
there is also an increased interest on the part of the Indians in
their own cultural history. Because my own research concerned Haida
culture history and seemed to harbor no hidden inquests into sensitive
areas of contemporary village life, it was officially accepted and
approved.

My first stop in the village was the Band Council Office. Here
I showed the photographs of Masset to several of the band Councillors
and explained my desire to accurately document the photographs
through interviewing some of the older people in the village. I
suggested that I make a permanent collection of some of these photos
for the village upon my departure.

I was given a list of potential informants by one of the
Councillors; the list was comprised of a number of old age pensioners
in the village. Prior to my departure for Masset I had received a
similar list from Mary Lee Stearns, an anthropologist from the
University of Victoria, who had done extensive fieldwork among the
contemporary Masset Haida.
Finding accommodations that are comparatively inexpensive is an impossible task in the Masset area; housing is in short supply. At the outset there were no accommodations in the Indian village. Two older women in the village did, on occasion, take in boarders, but neither of them could house my husband and me when we first arrived. We found a room to rent in the nearby village of New Masset, and by December we were able to rent a small camper-trailer from a man in New Masset. The trailer was placed on the reserve next to the health center, and the site was rented to us by the Masset Band Council. We occupied the trailer for six months and spent the final month of our stay in the home of Florence Davidson who became my primary informant and very close friend.

Participation in village life

I was the first researcher to live on the Masset Reserve for any extended period of time. I began my research by calling upon the older people on my list of potential informants and found the Anglican Church to be a useful avenue of introduction to the older villagers. Affiliation with the church provided an entry into community activities, for many events involving the entire community are sponsored by, or concerned with, the church. Moreover, church sponsored events are open to all, and within the confines of the church there is an equality that does not prevail in daily interactions. My husband and I joined the church choir which was formed for the celebration of the fiftieth anniversary of the Anglican church building
at Masset. Attending choir practices for this event put us in frequent contact with many members of the village during the months of December and January. Preliminary to the anniversary celebration the men of the village repaired the church road and the church; this gave my husband an opportunity to participate directly in matters involving the men of the community.

Anglican Church Army meetings were held weekly in the homes of different villagers and the Women's Auxiliary of the church met every Wednesday night. I regularly attended both these functions and found that I could perform a useful service to my elderly informants by giving them rides to and from meetings.

In addition to the church sponsored social gatherings, large dinners are given by various members of the village through the winter. We were invited to the majority of these dinners held during the winter of 1970-71.

During our winter in Masset the Department of Indian Affairs sponsored several courses in traditional Haida crafts taught by local Masset people. My husband joined a weekly class in woodcarving and I joined a class in cedarbark hat and basket weaving. For a time a Haida language class was offered on Sunday evenings and we attended that.

Throughout the year we joined villagers in seasonal subsistence activities. We learned the procedure for catching, killing and preparing octopus; on several occasions we gathered chitons from the rocks and collected rock cod eggs and sea urchins at low tides.
In early May we accompanied two families across Masset Harbour to collect seaweed and helped in the drying and processing of it. In early May we also visited a fish camp at the mouth of the Yakoun River where the Haida from Masset gill net for sockeye.

In addition to regularly visiting informants I visited some people socially. Casual visiting is an integral part of community life in Masset, and we were welcomed and encouraged to "drop in anytime" in the homes we visited. By the end of our stay in Masset we knew most of the people in the village over forty-five years of age. Because of the age distribution of the people who regularly attend and participate in church related events and dinners and because of the nature of my research, contacts with people of our own age group were relatively infrequent.

Field methods

The order in which I began calling upon potential informants was of some importance as status and ranking are still significant in Masset. Logically I should have begun with the town chief, the highest traditional authority in the village, but he had suffered a broken hip the week before our arrival and was in a hospital in Vancouver. My first visit was to the household of Florence Davidson, a prominent and important woman in the village. In the first few weeks of my research I called upon thirty-one people (two of whom resided in New Masset) aged fifty or more years. Most of the people on my lists were visited a second time, but after a few months I developed a core of seven informants, most over seventy years of
My husband accompanied me on all initial visits. I explained to each person that the photographs were from museums and that while they were a valuable record of Haida culture, there was really very little information about them. I showed the entire sample of Masset photos to each individual on the first visit and asked if he or she would be willing to tell me what he or she could about the photographs and about "the old days". Most of the people I contacted agreed to help me, though not all of them proved knowledgeable in respect to Haida history. During the first visit I took no notes but did make mental note of the individual's approach to the body of photographs and any comments that were offered.

On subsequent visits I took notes, occasionally used a tape recorder, and concentrated each time on just a few of the Masset photos from the sample I had. Almost all informants spoke some English and in only two instances was a translator necessary. Today in Masset there are only about thirty-five speakers of Haida, most of whom are at least to some degree bilingual. I learned some Haida but not enough to be able to conduct interviews. I came to each interview with a list of prepared questions which dealt with the content of the photographs. Additionally I sought information on areas

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2My primary informants were: Florence Davidson, born 1896; William Matthews, born 1886; Emma Matthews, born 1896; Peter Hill, 1890-1971; Amanda Edgars, born 1904; William Russ, born 1898; Percy Brown, born 1906.
of traditional culture not portrayed in the photographs such as subsistence technology, kinship, feasting and potlatches, and changes in Haida material culture.

I compiled genealogies of the Masset people dating from 1877, using as source material the Anglican Church marriage register and the early baptismal records from the church. Most of the genealogies, which began with the earliest known or recorded ancestor, ended with the oldest contemporary Haida. Clan and lineage affiliations were also recorded in the genealogies.

Later in the course of my fieldwork, with the aid of my husband, I began a survey of the Masset cemetery. The cemetery was of particular interest to me because the date at which tombstones began to replace the traditional mortuary poles could be pinpointed to 1877 and the consequent alterations in the entire mortuary complex traced. A preliminary paper on this subject has been published (Blackman 1973) and the tombstone materials are being further analyzed.

The inheritance of housesites in Masset was also investigated. After trying to elicit names of houses and house owners and the descent group membership of the latter by photo-interviewing, I found it necessary to begin at a more recent date. A survey map of the village dating from 1912 served as the base for determining lot ownership. In some cases it was possible to project these data back in time, and most lots were traced from 1912 to their present owners.
Continuities in Haida culture

Contemporary Haida society and culture have been described and analyzed at some length by Mary Lee Stearns (1973). Since the orientation of this study is ethnohistorical, I shall focus only on the continuities in traditional and contemporary Haida culture.

Subsistence

Though the economy of the Masset Haida shifted from subsistence to wage labor before the turn of the century, seasonal patterns of work and leisure are similar to the traditional patterns. Most individuals employed are part of the commercial fishing industry, and most of the village men engaged in fishing own and operate their own small gill netters and trollers. The fishing season, beginning in April and ending in October, generally coincides with the traditional subsistence fishing season.

The Canadian government allows the Haida to fish their traditional fishing grounds for sockeye in May and early June and for dog salmon in September and October. Although the season is limited, there are no quotas imposed. Caught with gill nets, the fish are canned (fresh and smoked) and hard-smoked. While the fish camps are still visited during these months, it was noted in the newsletter of May 6, 1971, distributed by the Masset Band Council, that over half the Band members did not get any fish. The Band Manager reported (Newsletter, May 6, 1971):

I've been informed by the local Fishery Officer that there was approximately 28,000 sockeye caught in the Yakoun River
last year, for food fish by Band Members in Haida Village. If this was divided into individual householders, it would amount to 164 sockeye salmon apiece. I know for a fact that over half of the people—especially the old age pensioners and people with no boats or cars DID NOT get one single fish last year! Everyone knows what is happening to the rest of the fish that was left over! It's sold for cash to white people!

The many gardens in which the women traditionally planted tobacco, and later potatoes, turnips and carrots, are no longer cultivated at the old campsites and abandoned villages. The practice of planting gardens at these sites continued into the first three decades of the present century, but today only a few gardens are planted and all of them are in Masset. The year round availability of vegetables from the New Masset Co-op undoubtedly accounts for the decline of gardening.

Throughout the year some traditional subsistence foods are gathered by many families. Clams (butter clams, little neck clams, razor clams, cockles) are dug during all but the summer months. Sea urchins are collected during the fall, winter, and spring. Chitons are gathered all year round and rock cod eggs during the early spring. Seaweed, still an important item of intra- and intertribal exchange, is collected during the last of April and the first part of May. Octopuses are sought year round at very low tides, and several species of berries are picked as they ripen from July to September. Herring eggs, absent from the waters around Masset, are purchased from the Skidegate Haida, and eulachon grease and soapberries, commodities not available on the Queen Charlottes, are acquired from the mainland Indians. Deer, introduced to the islands
in 1914 from Alaska, have become an important part of the diet. Food storage and preservation techniques have changed considerably in the last seven years as a result of the introduction of electricity to the village in 1964. Today practically all homes in Masset have a deep freezer.

Feasting and potlatching

Continuous with tradition, the winter months are the time of village-wide social gatherings. Church sponsored activities seem to reach a peak during this period, and it is also during the winter months that the traditionally based feasts and "potlatches" occur.

Feasts, now usually referred to in English as "dinners", take place on several different occasions: following a funeral and in honor of the deceased—a "memorial dinner"; when an individual assumes the position ("takes the place") of a deceased person; following a wedding; on birthdays and wedding anniversaries; when important visitors to the village are honored. Finally, feasts are given to fulfill an annual social obligation (expressed by informants as "everyone takes their turn at having their dinner"). The participants at dinners are people aged about forty-five and older, though younger members of the host's family help in the preparation and serving of the meal.

A feast or dinner is frequently planned only two to three days ahead of time, and written invitations on narrow strips of paper are issued no more than about twenty-four hours before the dinner. Invitations are delivered by the host's children or grandchildren.
and the guest list includes from twenty to eighty or more people depending upon the resources of the host. Dinners always begin an hour or more after the time stated on the invitation. Long tables are lined up in the host's front room, covered with linen and/or crocheted tablecloths and set with bone china and silverware. The tables are laden with fresh fruit (apples, oranges, grapes) and fancy pies, cakes, and cookies. Dinners almost invariably feature roast turkey with all the trimmings accompanied by koolaid (alcoholic beverages are taboo on such occasions). The desserts and fruit are generally not consumed at the dinner, but slipped into paper bags and taken home by the guests. Following the meal, scheduled speakers from both moieties are called upon to deliver speeches (usually in Haida). The town chief and the minister, always present at dinners and often seated at opposite ends of a long table, are called upon to speak first and last, respectively.

Informants remarked that the frequency of dinners reaches a peak around Christmas time and then again at Easter. During the height of the winter social season individuals may attend as many as five dinners in a single evening.

When asked to give the Haida term for potlatch, informants replied, *'wa'j'al*, which Swanton (1909) and Murdock (1936) both translate as "housebuilding potlatch". I asked if the ceremonies involving the distribution of food and gifts to people following the placement of a headstone in the cemetery could be considered a potlatch, and was told that they could not. Subsequent research has
demonstrated that this celebration, often referred to as a "headstone raising", meets both the structural and functional requirements of a Haida mortuary potlatch even though it is not formally recognised as such.

The same age group of people who engage in feasting are the guests at a headstone raising. Formal invitations are extended only about a day before the event, though people in the village know for some time beforehand when the ceremony will be.

The celebration is initiated by transporting the deceased's tombstone to the cemetery where it is put in place by the church wardens. A sq'an (female of father's clan) of the deceased wipes the stone with a towel and the few people who have come to the cemetery return home. That evening the celebration itself begins. The guests, attired in their best clothing, take seats in the host's front room as they enter. The memorial service is opened and closed by the minister with prayer. A few hymns are sung in the beginning and members of the Women's Auxiliary of the church offer individual prayers in Haida. As at the feasts, scheduled speakers of both moieties are called upon. Large quantities of food (desserts and fruits) are distributed and coffee and tea are served. Headscarves and aprons are given to all the women present and each man receives a handtowel. The donations to the potlatch are read, each donor's name and the amount of his gift being announced. Envelopes containing money are

3Traditionally the mortuary potlatch was hosted by the deceased's heir or a member of his clan. This does not necessarily hold true today in respect to the house in which the potlatch is given.
handed out to individuals for performing specific tasks associated with the purchase, pickup, delivery, and placement of the headstone on the grave. Among the recipients of cash gifts are St. John's Church and the Women's Auxiliary. Recount of the inventory of contributors of food and money towards the potlatch reveals that those of the deceased's clan contribute the most and those who are paid for services are members of the deceased's father's clan.

The organization of both feasting and potlatching indicate that the descent groups are still of some importance, at least among the older people. The groups still function in the area of some reciprocal obligations, particularly those associated with death. On other occasions prestations were observed to take place between an individual and his sq'an, and I was told that if someone of the "opposite tribe" admired something you had, you were obligated to give him something. But it is only the people over about forty-five years of age who are aware of these reciprocities and obligations. Most people under that age could not name the different clans in Masset, and those younger than thirty are not aware of the existence of clans; rather, they only know that they are either Raven or Eagle (i.e. moiety membership).

**Ethnohistorical data from Masset: summary and discussion**

The ethnohistorical data gathered in the field during the winter and spring of 1970-71 can be viewed from several perspectives. This section attempts to summarize the nature and quality of these data. Ethnohistorical materials are discussed in respect to traditional
status relationships among informants, the collection of erroneous information, and variation in informants' knowledge according to subject.

Much of the information I collected reflects the maintenance of some traditional status relationships in Masset. William Matthews, the hereditary town chief, was looked to by many people in the village as a sort of tribal historian. He is invariably called upon to give speeches (in Haida) at dinners and headstone raisings, and informants remark that his speeches often have an historical content. Thus, information on the past is disseminated at these public gatherings, and on more than one occasion an informant cited Mr. Matthews as the source of this or that piece of information. I was often told by an informant who did not know the answer to a particular question that Willie Matthews would surely know. While in several instances Mr. Matthews did not have the answers to my questions, it is evident that the Masset people regard him as an authority on many matters of Haida history.

Traditionally there were some songs and stories which were transmitted within the matriclans, and today it is still believed that the history relating to a particular house or to specific individuals should be told by a member of that group. Thus, when I asked Peter Hill about the history of Chief Weah's "Big House", he shook his head and asked if I had seen Willie Matthews (a direct descendant of Chief Weah). When I replied that I had, Mr. Hill remarked, "Willie Matthews has made a long study of that house; I wouldn't want to say
it differently that he does."

Status, prestige, and traditional rivalries also figured into the information I received. In studying changes in material culture I questioned a number of people about the adoption of Anglo-American style houses. I asked specifically what individual and/or what "tribe" (lineage or clan) built the first 

\textit{Y̓ets h̓aide} house in the village. Each time I received a different answer, but in each case the individual or tribe mentioned was closely related to the informant. From the literature it is apparent that the Haida readily accepted material innovations, and to do so became a sign of prestige. Thus, to be the first to build a white man's style of house would be an important distinction in Haida thinking.

As noted in the previous chapter, the town chieftaincy of Masset passed from a clan of the Raven moiety to an Eagle clan. Informants still talk about this unprecedented transferral of rights, and many of them speak of it with some hostility. Several informants told me that Willie Matthews was not the true chief of the town and that the office really belonged to George Spence, the direct matrilineal descendant of the original Raven town chief. Though Mr. Matthews' clan acquired the chieftainship about 125 years ago, his status is still contended by some.

Traditional rivalries between the descendants of one group and those of another led some informants to attempt to discredit others. Several times I was told by an individual that so-and-so told lies or that such-and-such a person didn't know anything or that some-
one else was stupid.

On initial visits when photo-interviewing was totally undirected, examination of the photographs by informants was casual and occasion­ally careless. On these occasions I was given a considerable amount of erroneous information. For instance, one informant commented that a panorama of Masset village from 1893 (Photo HBC T-15) looked like a photo of Alert Bay. Another informant, realizing that the photos were indeed old, thought them to be from the 1700's. One house, represented in several photographs and located below the hill Ḣḏaːx, was repeatedly misidentified as a house that sat on top of the hill, and on one occasion it was incorrectly identified as Chief Weah's house. Part of the problem of misidentification was a result of poor eyesight. Emily White, ninety years old and nearly blind, had to wear two pairs of glasses to even inspect the photos, and Willie Matthews and Peter Hill both needed very good light and a magnifying glass in order to identify things in photographs.

Apart from erroneous information relating directly to the photo­graphs, misconceptions about other areas of the Haida past were con­veyed to me. I was frequently told, for example, that the mission­aries made the Haida cut down their totem poles—a bit of data which, as noted in Chapter I, has no basis in fact. At Masset the mission­aries discouraged the raising of poles as exemplified by Charles Harrison who encouraged the purchase of tombstones in lieu of the carving of mortuary totem poles. Peter Hill stated that the Haida were gradually forced to remove the poles because the rotting columns
were in danger of falling on the villagers during the gales that frequently hit the Masset area.

Occasionally the literacy of informants and their interest in Haida history created problems for my research. At times I discovered that a datum of traditional Haida culture given me by an informant actually had its source not in the oral tradition of the Haida but rather came from some published literature on the Haida. Although Swanton’s work (1909) was unfamiliar to all the villagers, Marius Barbeau’s books (1950;1953;1957) were items found in a number of households. Sometimes an informant would cite a book as the source of information given, as when one person, looking at a photo, told me, “The book says that was the last house to be torn down.” Peter Hill once commented that at night he looked over Barbeau’s Totem Poles (1950). He added, “He hasn’t got it all, but lots of things. It recalls things back.”

An intriguing aspect of my ethnohistorical field research is that informants appeared more knowledgeable about some areas of the traditional culture than others. Very little information could be obtained on totem poles, for example. Names for the two types of poles could be elicited, but my repeated inquiries about the identification of crest figures or mythical elements on poles yielded practically no results. In the case of mortuary poles, individuals did not know for whom they had been carved nor the identity of the carver. Five poles were identified as to crest figures and owners. These included two poles from the town chief’s house (frontal pole
and inside house pole), the last pole raised in the village around the year 1893, and two mortuary poles which stood in front of Chief Edenshaw's house. All of these poles were among the last to be taken down.

Very few traditional Haida houses and their owners were recalled in any detail by informants. Neǀwランス, the house of Town Chief Weah of Masset, was readily identified in the photographs. The house just north of Weah's was identified by owner, and the house to the south of Weah's, built between 1878–82 by Chief Anétwランス, was remembered. The four other houses and housesites which were identified by informants belonged to Chiefs Edenshaw (Ed.insa), Stîta, Skâldakâchu', and Xîla. All these individuals were lineage or clan chiefs, and three of the four houses were among the last to be torn down.

Data on potlatching, particularly mortuary potlatching, was obtained, but there was some reluctance to talk of potlatching, and I was not able to determine from informant responses why housebuilding potlatches disappeared while mortuary ones did not. Florence Davidson on more than one occasion remarked, "I'm glad they /missionaries/ made them quit doing that /potlatching/. They used to try to be better than everyone else; now we're all equal." The equality she mentions exists today only on an ideal level, for status and rank are still significant in Masset.

The survival of traditional subsistence activities allowed me to project some behavior patterns back through time. Seaweed, for instance, becomes available only during a short period of time in late April and early May and is sun dried after it is gathered. The
absence of any seaweed drying in the early photographs from Masset and Alaska seems significant. As discussed in Chapter IV, it also proved possible to seasonally date photographs by the presence or absence of drying halibut, canoes, and boarded-over windows. Informants commented on the presence or absence of these items.

Among the photographs are several of Haida women making baskets. Current knowledge of basket, hat, and mat making was helpful in drawing some conclusions about these photographs. Many baskets and hats were traditionally made from spruce root, a material which darkens upon exposure to sunlight. Florence Davidson commented that her mother, who wove hats for C. F. Newcombe of the Provincial Museum during the early part of the twentieth century, always worked indoors when using spruce root. All photographs of hat weaving show the weavers seated out of doors; furthermore, in these several photographs some of the essential accoutrements of weaving are missing such as the water to keep the materials pliable. Mrs. Davidson examined all of these photographs and remarked that several were posed.

Informants seemed to know more about the past when it came to the subject of kinship. Though some older informants did not know the clan affiliations of contemporary and deceased persons accurately, from three people I was able to collect a considerable amount of genealogical data. Comparing these data with Swanton’s descent group lists, it would appear that informants recall clan groupings but are not concerned today with subclans or lineages. It was possible to acquire information on moiety reciprocity, marriage preferences, some
Subclan alliances, and on the functioning of clans at potlatches.

**Hydaburg**

During the first week of June, 1971, my husband and I left Masset to spend the summer months in the village of Hydaburg, Alaska. Our accommodations had been prearranged by Florence Davidson, my main informant in Masset. In Hydaburg we stayed with her sister's son, Sylvester Peele, and his family.

Hydaburg, located at 55°14' north latitude and 132°44' west longitude on Price of Wales Island (see Figure 1), is accessible either by fishing boat or by plane from Ketchikan, Alaska; no road connects the community with any other settlement. Three-quarters of a mile of gravel road wind through the village, but one end of the road dead ends on the rocky beach, the other at the edge of the forest.

A long wharf housing a cannery and cold storage plant stretches out into the bay in front of Hydaburg. The cannery complex includes dormitories and kitchens for the workers and a manager's dwelling. Owned by the Bureau of Indian Affairs, the cannery and its complex have not been in operation for several years. Below the cannery wharf is the floating dock where pontoon planes bringing mail, passengers, and freight to Hydaburg tie up.

There are two small general stores in Hydaburg, each owned by a different family. The stores stock all staple foods and are patronized at one time or other by all the townspeople, although many families in Hydaburg order groceries and supplies directly from Ketchikan on the weekly freighter.
Public buildings in the village include a post office, a community hall built by members of the Alaska Native Brotherhood, and an elementary school. The Presbyterian church and manse sit atop a hill behind the village near the elementary school and playground. Beside the church is a "totem park", containing Kaigani totem poles carved in the 1930's and copied from the original poles at Howkan and Klinkwan. At the opposite (north) end of the village from the cannery dock is the boat basin where the local fishing fleet is anchored. The fishing industry provides a livlihood for virtually everyone in Hydaburg. Very few jobs exist within the village itself.

The settlement pattern of Hydaburg stands in rather striking contrast to that of Masset. Hydaburg houses, many of them large two story buildings, all face the street and are oriented towards it rather than the water. Because Hydaburg has been an incorporated town since the 1930's, its people acquired both electricity and running water long before such facilities were available to the Masset people. The town water supply is piped from a reservoir about a mile behind the village and a diesel engine supplies the power for the town. In contrast to Masset, however, Hydaburg has no television and due to its small population and the expense of cable T.V., it may never have it.

Historical background

Hydaburg was founded in 1911 by Haida people from Klinkwan and
Howkan. According to Hydaburg informants, the motivation for abandoning the old village sites was the United States government's promise to create a reservation and provide schooling for Haida children. Howkan had an operating Presbyterian mission school during the first decade of the present century. A school begun at Klinkwan around the turn of the century was closed before 1910 and Klinkwan people moved into Howkan during the winter months where their children attended the mission school. Informants noted that it would have been impossible to permanently combine the populations of Howkan and Klinkwan at the former village for housesite owners would not relinquish traditionally inherited land. Thus, under pressure from the United States government, a new site was selected which had no traditional meaning or content for the Haida.

Upon moving to Hydaburg the Haida lost any claim to their traditional village sites which passed into the hands of the federal government and became part of the newly designated Tongass National Forest. Although the promised reservation was never realized, old maps of southeastern Alaska show both Hydaburg and the nearby village of Sakwan as part of a large reservation.

The founding of Hydaburg was accompanied by the signing of an unusual document, drawn up by the people, and based on a commonly shared belief that, once relocated, they would receive full United

By 1911 the remaining people from Sakwan had been incorporated into the populations of Howkan and Klinkwan. Koiandlas was abandoned around 1880 and its residents immigrated to Howkan.
States citizenship. This document reads in part as follows:  

We the undersigned Alaskan Natives of Hydaburg, Alaska hereby declare that we have given up our old tribal relationships; that we recognize no chief or clan or tribal family; that we have given up all claim to or interest in tribal and communal houses; that we live in one family houses in accordance with the customs of civilization; that we observe the marriage laws of the United States; that our children...belong equally to the father and mother, and that the rights of the maternal uncle to direct the children are no longer recognized...that we have discarded the totem and recognize the Stars and Stripes as our only emblem...We therefore believe that we have fulfilled all requirements necessary to citizenship in the United States, and we respectfully request the Congress of the United States to pass a law granting us the full rights of citizenship.

Citizenship for the Hydaburg people, however, was not forthcoming until 1924 with passage of the Citizenship Act.

While I did not direct my research efforts in Hydaburg toward ascertaining whether the traditional culture was totally disrupted within a short time after the signing of the 1912 document, there are today a few striking cultural differences between the Masset and Hydaburg Haida. These differences suggest that with the founding of a "civilized" town some dramatic changes did transpire in Hydaburg.

Although there is evidence that potlatching did not cease with the move to Hydaburg, headstone raising ceremonies and the accompanying mortuary potlatch were discontinued many years ago. Because I was present in the village during the summer at the height of the fishing season, I was unable to observe differences between the winter social gatherings in Masset and Hydaburg. Indications are, however,

5 The original document is in the possession of Helen Sanderson of Hydaburg.
that the feasting patterns characteristic of Masset no longer exist in Hydaburg. For example, shortly after arriving in Hydaburg my husband and I attended a memorial dinner following the funeral of a Hydaburg man. The dinner differed in both structure and content from similar dinners in Masset. Held in the community hall, the event was jointly financed and sponsored by the Alaska Native Brotherhood and Sisterhood and by the Missionary Society. Members of the Youth Corps, a federally financed summer employment program for youth in the village, aided in serving the meal. There was no overabundance of food so characteristic of Masset dinners, there were no lengthy speeches in Haida (speeches were brief and in English), the arrangement of tables was different, and within a half hour after dessert was served, the tables were cleared and put away and everyone had gone home.

Differences between Masset and Hydaburg are also apparent in respect to education. Several older people in Hydaburg have completed high school, whereas few Masset people over sixty have even a grade school education. One older Hydaburg woman has taken university courses in Seattle. Coupled with the higher educational level in Hydaburg are relatively fewer speakers of Haida.

Ethnohistorical research, June-September, 1971

My information on the Kaigani Haida villages was obtained from interviews with ten informants over age sixty and originally from
either Howkan, Klinkwan, or Sakwan. I used the same procedures of photo-interviewing that I had used in Masset. Much of my research in Alaska, however, differed from my work in Masset. Three weeks of the summer were devoted full time to a survey of the villages of Howkan, Klinkwan, Koiandlas, and Kasaan. At these sites the remaining house features and totem poles were measured and correlated with their appearance in the ethnohistorical photographs (with the exception of Koiandlas for which there are no photos). More than a month of intermittent work was conducted at Sakwan, located just one-half mile by water from Hydaburg. Here my husband and I mapped the village site using a plane table and open sight alidade. Three informants remembered Sakwan from childhood and I was able to interview these individuals at the village site itself.

The problems encountered in ethnohistorical field research discussed in respect to Masset were also found at Hydaburg. In Alaska I encountered for the first time two informants who were openly unwilling to talk about the past except only in the most general terms. I did note, however, among the Hydaburg informants, an apparent greater knowledge about the ownership of traditional houses, but partly this was a function of the comparatively late date at which traditional village sites and houses were abandoned. A particularly

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6 Sam and Elsie Douglas, Patterson Edenshaw, and Fred Grant provided information on Klinkwan. Katherine Grant, Viola Morrison, and Jimmy Edinso were informants for Howkan. Jesse and Frank Natkong contributed material on Sakwan, and Helen Sanderson served as an informant for all three villages.
significant facet of my research in Hydaburg was the discovery of sixty-eight photographs of Haida people and villages dating prior to and just after the turn of the present century. These photos were owned by Mrs. Helen Sanderson, one of my primary informants. The photographs were documented in the field and kindly lent by Mrs. Sanderson to the National Anthropological Archives for copying.

Summary

Ethnohistorical field research in both Masset and Hydaburg demonstrated that there is yet data to be gained on Haida culture history from working with present day informants. It was pointed out, however, that this information varies considerably in quality and quantity depending upon both the informant and the topic. Data are affected by traditional rivalries and status relationships. Research indicated that there was more knowledge about kinship than any other area of the traditional culture; the least amount of data was collected on totem poles. Information on the old community houses was variable; the most information was compiled on the house of the town chief of Masset. Continuities in the seasonal cycle proved useful in drawing conclusions about the time of year that early photographs were made and about the presentation of certain economic activities in the photographs.
CHAPTER III

ETHNOHISTORY AND THE STILL PHOTOGRAPH

Worth and Ruby (1972) have attempted to delineate a subfield within anthropology, visual anthropology, which has isolated for study the patterns, rules, and codes within which visual symbolic forms are developed and used. They further propose a study of the relationship of these forms to other patterns and codes within a culture. Still photographs are an important visual symbolic form within our own culture, and at the same time their content may refer to other cultures and other periods of time. With the growing interest in developing both method and theory in visual anthropology, it is apparent that still photographs from both the past and present will have a larger role to play in anthropological research. Chapter III investigates the significance of the still photograph as a visual ethnohistorical document.

The Nature of Ethnohistorical Research

Most of the several anthropologists who have delineated the scope of ethnohistory agree that ethnohistory is a process and method of studying culture history and is neither a new field of inquiry nor a discipline per se. A maximum definition of ethnohistory would be, "the study of culture history which emphasizes as source material
primary documents from the time period under consideration." Traditionally ethnohistorical research has focused upon non-literate, non-Western cultures, although as Lurie (1961) points out, the method is equally applicable to peasant and urban societies. Both Fenton (1966) and Sturtevant (1966) stress that ethnohistorical research need not be limited to the archives but is best accomplished when it includes fieldwork among the modern descendants of the cultural group being studied. Fenton (1966) adds that his model of ethnohistorical research is field oriented with reciprocal lines running to the museum, library, and archives.

Ethnohistory is usually distinguished from folk history. According to Hudson (1966), the study of folk history is analogous to other ethnoscientific approaches to ethnography. Folk history is the culture bearers' own view of the past. Ethnohistory, on the other hand, is the anthropologist's interpretation of the processes and events of the past arrived at through fieldwork and archival research. As de Laguna (1960:201) phrased it, "the biases and prejudices of the white man's records and the natives' traditions must not only be perceived and reconciled if possible, but the reasons for bias must be understood." Washburn (1961:41) describes ethnohistory as "history in the round" because he notes it is a method of "isolating the facts and perceiving them from all sides." Thus, ethnohistory not only encompasses folk history but attempts to reconcile it with archival research.

Fieldwork in ethnohistory generally focuses on "memory ethnography", the eliciting of data on the past culture from present day informants.
As discussed in Chapter II, most of my fieldwork with informants in Masset and Hydaburg consisted of recording memory ethnography from the oldest people in both villages. In respect to ethnohistorical field research, Sturtevant (1966) and Fenton (1966) also note the importance of the process of "upstreaming". Upstreaming is the use of data from a modern culture to reinterpret older, incomplete accounts of its ancestral culture. This process figured importantly in my own research. Study of the contemporary Haida mortuary complex, for example, answered unresolved questions about traditional Haida social structure. Neither Swanton (1909), Curtis (1916), nor Murdock (1934b;1936) were explicit on the identity of all the clans involved in mortuary potlatch reciprocities. A recent reinterpretation and reanalysis of the literature by Rosman and Rubel (1971) indicated that the clans of the deceased and his spouse were, respectively, the descent groups which gave the potlatch and which received goods in return for certain services. My field data on mortuary potlatches held in 1970-71 revealed, contrary to Rosman and Rubel, that the essential functioning clans in the mortuary potlatch were those of the deceased and his father; spouse's clan was involved in potlatch reciprocities only in the case that spouse's clan and father's clan were identical (See Blackman 1973).

Archaeological research is often an adjunct to the solving of ethnohistorical problems. Eggan (1960:37) speaks very positively of combining archaeological and ethnohistorical research. He notes, "The potential value of ethnohistorical research, combined with the direct
historical approach to archaeology, offer so much in the way of
rewards that they should be strongly encouraged." Surface survey of
Haida village sites proved essential in my own research. At Kasaan,
measurements of house foundations and totem poles shown in the late
nineteenth century photographs were preliminary to an analysis of
settlement pattern and culture change. At Masset, a single dimension
obtained from the excavation of a housepit retaining wall became the
scale factor in the metric analysis of Chief Weah's nineteenth century
traditional style Haida house.

Ethnographic literature from the past can also be considered a
form of ethnohistorical document. The historical reconstruction
studies of Swanton (1909), Curtis (1916), and Murdock (1934a,b;1936)
were essential to my research. As ethnohistorical material, this
literature is quite different from other ethnohistorical sources. The
historical reconstructionists presented traditional pre-contact Haida
culture in a timeless ethnographic present; all other ethnohistorical
documents, by definition, concern post-contact Haida culture. Yet
it is clear from the historical reconstructionist literature that
not all references are to pre-contact Haida. Swanton (1909), for
example, listed all the major Haida villages, enumerating the houses
and house chiefs in each village. Though no ethnographic horizon is
given for these lists, the time period seems to be between 1840-50,
some seventy years after the first contact with Anglo-American culture.

The central focus of ethnohistorical research has been on the
use of primary documents. These documents come from the hands of
eyewitnesses to events in the society under investigation. Almost invariably these archival records are not the products of members of the society being studied but are rather an outsider's view of what was happening. Because the documentary material comes from members of literate societies in contact with the culture being studied, implicit in ethnohistorical research is the process of acculturation.\textsuperscript{1}

The observers of Haida culture—the government employees, the trading company employees, the tourists, the museum collectors, the photographers and explorers, and the missionaries—were all agents of culture change. Unless the ethnohistorian is attempting a portrayal of the culture at the time of first contact, an ethnohistorical study must take into account the nature of the acculturative process during the time and at the place being studied. The present study, for example, encompasses a time period and a geographical area in which intensive changes were experienced over a very short period of time.

The Still Photograph in Anthropology and Ethnohistory

Still photography has for some time been an adjunct of anthropological research, as both recording tool and as embellishment for the printed word. As early as 1890 anthropologists were using cameras in the field. In that year, James Mooney began a twenty-two month investigation of the Ghost Dance of 1890. With him, Mooney carried

\textsuperscript{1}In referring to acculturation, I follow Broom, et al. (1967:256) who state, "acculturation is change in culture initiated by the conjunction of two or more autonomous cultural systems".
a "Kodak and a tripod camera" in order to record on film Arapaho and Cheyenne dance and trance (Kooney 1965:xii).

The camera as a recording device is an extension of the fieldworker's limited powers of observation and recording, and as such, it is capable of recording what the individual alone cannot. However, despite the emphasis upon still photography in the field, only a handful of studies in cultural anthropology have given primary emphasis to photographic data, and most of these have been either singly or jointly authored by Margaret Mead (e.g. Mead 1956;1963; and MacGregor 1951; and Byers 1967; Bateson and Mead 1942). Other anthropologically oriented publications have attempted to portray the essence of different cultures by presenting a selection of still photographs from these cultures (e.g. Collier and Buitron 1949; Verger 1950). In both types of studies the old aphorism, "a picture is worth a thousand words" seems to have been taken to heart. The photographs are simply allowed to speak for themselves. In Balinese Character, for instance, Bateson and Mead (1942:xii) note, "In this monograph we are attempting a new method of stating the intangible relationships among different types of culturally standardized behavior by placing side by side mutually relevant photographs." Only Byers (1964; Byers and Mead 1967) and Collier (1967) have turned to a discussion of the nature of the still photograph itself and have presented methodologies for the analysis of specific samples of photographic data.

Byers (1964:78) suggests one reason for the tendency to avoid analysis of the cultural content of photographs. He writes, "There
is, as yet, almost no photographic equivalent of a literacy with which to handle photographic observational materials systematically and communicatively." In a similar vein, Collier speaks of the anthropologist's difficulties in using the "bouquet of culture" present in still photographs. He states (1967:64):

The common experience has been that this photographic conglomeration defies validation by the controlled systems by which other humanistic data can be evaluated. When this uncontrollability is discovered, the tendency is not to use photographic data.

A sample of photographs, even if limited in time and space, generally contains information on so many categories of culture that to simply identify the categories and order the photographs is a task of considerable magnitude. Thus, the relegation of photography to a position where it can be controlled, as a research tool, has been the practice in anthropological research.

If the contemporary still photograph has received only occasional attention in the past, then it follows that historic still photographs have sparked but little interest among anthropologists. These visual remnants from the past, because they are often undated and undocumented, present more variables to the researcher than contemporary still photographs made in the field. Yet with the developing interest in ethnohistorical research and the refinement of ethnohistorical methods, this wealth of pictorial documents invites investigation and analysis.

The still photograph is not consistently mentioned as an important resource in ethnohistorical research. Hickerson (1970), for example, in the introductory pages of his case study on Chippewa ethno-
history, does not list the photograph as a potential source of ethnohistorical data. Wilsomb Washburn (1961:38) does discuss the photograph, but cautions researchers in the use of this document. Posing the question of the "ethnohistorical truth of Indian appearance at contact", he says in respect to the utility of photographs in answering this question, "Of course they can give us a certain picture of truth, but remember that the camera could make Lincoln look like both barbarian and saint." David Pitt, however, in his handbook, Using Historical Sources in Anthropology and Sociology (1972), points out the advantages of the photographic documentary record over the written. He notes (1972:50), "The semantic constraints in language itself do not allow the same kind of completeness in the documentary record as that recorded, say, in a photograph or movie."

The only ethnohistorian to give a specific account of the utility of historic photographs for ethnohistorical research is Lurie (1961). She describes early photographs as a little appreciated source of ethnohistorical information and points out how the portraits of Indians at Black Falls, Wisconsin, taken over a forty-year period (1890-1930) show differential acculturation in the dress of men and women.

A project undertaken by Dr. George F. MacDonald of the National Museum of Man in Ottawa, before I began my own research, utilizes some 600 historic photographs of the Queen Charlotte Haida villages. MacDonald's research has concentrated on reconstructing the physical layout of prehistoric Haida settlements and detailing architectural styles prior to extensive acculturation. His study does not directly
concern itself with the methodology of photographic ethnohistory nor with the use of photographs in the study of culture change. As a prehistorian, MacDonald is attempting to project patterns backward in time whereas my research focuses on a relatively recent period of time.

Other than the brief references to the photographic document by ethnohistorians and MacDonald’s current project, there have been no studies in photographic ethnohistory. The pictorial ethnohistorical research of Ewers (1948; 1953; 1955) on the drawings of Sohon, King, and Catlin is well known among ethnohistorians, and recently Urbanowicz (n.d.) has used a similar approach in the study of Tongan ethnohistory; yet, the photograph has not been used for similar ends. In both photographs and drawings the problem of viewpoint emerges, but the number of factors or variables which enter into the portrayal of the subject matter is obviously far greater in drawings and sketches than in photographs. Taking artistic license is much easier with a pen than with camera and darkroom. There are, however, at least two reasons for the lack of attention to photographic ethnohistorical data. First of all, the photographic record is comparatively recent. The history of photography as the visual recording of people and places

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2 According to Dr. William Sturtevant (personal communication) the only current study involving an approach to photographic documents similar to my own is an American History Ph.D. dissertation (in progress) which will analyze several thousand glass plates taken by Joseph J. Pennell around the turn of the century in Junction City and Ft. Riley, Kansas.
For example, there are almost 2000 known photographs of Haida culture dating from 1878 to about 1908 (George F. MacDonald, personal communication), while there are not more than fifty extant drawings pertinent to Haida culture covering this and previous time periods.

It should perhaps be mentioned that a whole category of photographs whose content might be considered exclusive have been omitted from consideration. Found in most museum collections, these are studio photographs of items of material culture. While such photographs are important to the study of museum collections of material culture, because these images are removed from their cultural context, this type of photograph has limited value as an ethnohistorical document and is not considered in the present study.3

The Nature of the Ethnohistoric Photograph

The still photograph has certain unique properties which recommend it as an ethnohistorical document. The camera, compared to other documentors of the past, is capable of recording in more detail and with greater accuracy than an individual can write. This quality of the camera became quite apparent to me in comparing a photograph of the interior of Chief Weah's house at Masset (Plate XXVII) with three contemporary descriptions of the house interior (Collison 1915; Deans 1887; Swan n.d.b). None of the eyewitness accounts approaches a complete description of the arrangement of items within the house.

This type of photograph would be valuable in ethnohistorical field research on material culture. In such a situation the photos could be used in place of the actual museum objects to elicit data.
One account which was published together with the photo of the house Collison (1915) even included obvious errors regarding the plan of the house that could have been obviated merely by consulting the photograph.

Byers mentions another unique and positive quality of the still photograph which bears on its ethnohistorical value. The camera samples a small slice of time and presents this elapsed time in a non-temporal dimension. Byers remarks (1964:80), "The still camera gives us a new order of seeing based on a change in time.../it/ holds a scene motionless for our continuous involvement-in-time with a non-time representation." He continues, "There is therefore more information available to us in a still photograph of a scene than was available at that moment at the scene itself." The camera recorded a total of only a few minutes of Haida culture history, yet these arrested moments in time can be inspected again and again. However, to be of value as an ethnohistorical document, the sample of still photographs should show more than arrested time. Taft (1964) remarks that the historical value of a sample of photographic documents lies in its ability to record elapsed time. Phrased in anthropological terms, one of the values of temporal sequences of historic photographs is their ability to document culture change visually.

The preceding paragraphs have emphasized the uniqueness of the photograph as an ethnohistorical document. At the same time, the still photograph bears a fundamental similarity to other anthropological data. I propose that the photographs that constitute the subject matter of
the present study can be regarded as archaeological specimens for several reasons.

The photographs of Northern Haida culture are first of all only a sample from the past of a population of photographs, much as archaeological specimens are only a sample from the past of a population of artifacts. The photographs constitute a sample because they represent neither all of the photos taken of Northern Haida people and villages, nor do they present in their entirety a total picture of Haida culture during the time period under study. The shortcoming of the photographic sample, its incompleteness, is the same shortcoming inherent in the prehistoric record of a culture. Both prehistorian and ethnohistorian are attempting to reconstruct the dynamics of whole cultures, but these wholes must be deduced from study of only some of the parts.

Secondly, the photographs, artifacts in and of themselves, present images of material culture which can be described both temporally and spatially. The Haida village sites portrayed in photographs can be identified and each village is shown through time. Thus the photographic data lend themselves to analysis along space-time coordinates, and as such they are consonant with archaeological data.

Perhaps most importantly, the content of the photographs of Haida culture is mainly artifactual as opposed to behavioral. The material presented in the photographs comprises almost exclusively images of houses and totem poles, panoramas of villages, and a few shots of house interiors. Because of the artifactual orientation of the photographs, as in prehistory, the behavioral sphere of the culture must be
derived largely from analysis of the material culture.

Analysis of the imagery in the 196 photographs of Haida culture suggests that in a sample of ethnohistorical photographs there are three levels or types of behavioral patterning. On the one hand, the photographs convey information on the interests, biases, and background of the photographers. As illustrated in Chapter IV, spatial-temporal patterning emerges in the pictorial data, and it also becomes evident that the participation of the photographer in Haida culture was minimal.

Viewed somewhat differently, the photographs as a whole make a statement about a specific culture during a particular period of time. As mentioned previously, only certain aspects of late nineteenth century Haida culture are portrayed, but this view of the late nineteenth century Haida generally does not contradict, but rather complements, the portrayal of Haida culture by other ethnohistorical sources.

Finally, and most importantly, the photographs provide the bulk of data for making interpretative statements about Haida culture. Systematic analysis of the photographs (in conjunction with other ethnohistorical data) reveals substantial information on the expression of social structure through architecture, house construction, settlement pattern, and material acculturation.

The Integration of the Photograph With Other Ethnohistorical Data

Although the spatial-temporal contours of the present study are dictated by the composition of the photographic sample and considerable effort is directed towards demonstrating how historic photographs can
be effectively mined for their cultural historical content, it has been noted that other ethnohistorical resources were essential in the integration and the interpretation of these photographic data.

de Laguna's (1960) well known account of a Tlingit community vividly illustrates the discrepancies in the pictures of a society obtained through memory ethnography, primary documents, archaeology, and artifact collections. The situation de Laguna encountered emphasizes the importance of utilizing all resources possible in cultural historical studies. Fortunately, in my research, I encountered neither serious nor inexplicable discrepancies in data; the degree of congruence was undoubtedly due to the fact that the time depth in de Laguna's study was much greater than in my own.
CHAPTER IV

THE PHOTOGRAPHS AND THE PHOTOGRAPHERS OF LATE NINETEENTH CENTURY HAIDA CULTURE

Within the last decade a number of case studies in prehistory have been premised on the hypothesis that artifact patterning reflects certain social organizational realities. Although some of these studies have been quite validly criticized for fallacious reasoning in the derivation of some aspects of social organization from artifactual remains, namely the determination of residence patterns from ceramic patterning (see Johnson 1972), recent ethnoarchaeological studies and "experimental archaeology" as employed by Dethlefsen and Deetz (1966), have offered refinements in our thinking about the links between material culture and the larger social system. I propose that the analysis of historic photographs can proceed under the same general theoretical considerations as given to the study of more traditional artifact systems. This chapter and the ones which follow attempt to demonstrate that photographs, as historic artifacts, can be systematically analyzed for their behavioral content on at least three different organizational levels.

This chapter presents an analysis of two of the three behavioral
content levels of the photographs. The non-random content of the ethnohistoric photographs is first of all informative about the photographers. The manner in which the camera captures its subject matter reveals some of the motivations and biases of the human being behind the lens. Contrary to the aphorism, "the camera never lies", the camera never does objectively photograph reality; rather, the preferences and prejudices of the photographer guide the camera to photograph what he chooses to record, in the way he wishes it to be seen. The sample of ethnohistoric photographs are also a visual record of a portion of Haida culture at particular points in time. The early still photographs present Haida culture in a manner different from, yet complementary with, the portrayal of the Haida in the ethnographic and ethnohistorical literature. A third content level, and the most important in respect to the contribution of photographic ethnohistory to anthropology, concerns data contained in the photographs on the dynamics of Haida culture. Chapters V, VI, and VII treat the photographic sample on this level of analysis.

Research on the photographers sought answers to the following questions: Why was particular subject matter selected for photography? What was the role of the photographer—a professional, photographing views to sell, member of a scientific expedition charged to photograph specific things, tourist anxious to photograph the disappearing Indian? How knowledgeable of Haida culture was the photographer and to what extent, if any, did he participate in it? Answers to these questions were directed towards discovering the patterned responses
of the photographer to Haida people and villages.

Information on the photographers was obtained from analysis of the photographs themselves and from sources external to the photos. The diaries and/or journals of three photographers were studied. Biographical material on a few photographers was examined at the Provincial Archives in Victoria. Using these sources of data, I classified the photographers of Haida culture into five categories. This classification is presented and discussed below.

As a step towards determining the view of Haida culture presented by the early photographs, the photos from each village were placed in chronological order. These photographic chronologies are presented in Tables 1 through 5, and the procedures of classification are discussed below. A number of questions were also asked of the photographic sample regarding its portrayal of Haida culture. Pertinent questions included: What time of year was each photograph taken? Where was the camera located in space; what did its view encompass and what did it omit? Field work contributed information on seasonal changes in local flora and data on the arrangement of late nineteenth century Haida villages. Omissions from the photo-

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1 The following abbreviations for photo archives are used in the tables and text: AMNH—American Museum of Natural History; ASM—Alaska State Museum; BCPM—British Columbia Provincial Museum; CMS—Church Missionary Society; FMNH—Field Museum of Natural History; HBC—Hudson's Bay Company; NA—Glenbow Alberta Foundation; NMC—National Museums of Canada; PA—Public Archives of Canada; PHS—Presbyterian Historical Society; S—Smithsonian, National Anthropological Archives; THS—Tongass Historical Society.
graphic record of Haida culture were also ascertained from study of the ethnohistorical literature. The temporal, spatial, and content patterning in the photographic record of Haida culture is presented later in this chapter.

The Photographs

One hundred and ninety six photographs from the villages of Masset, Sakwan, Howkan, Klinkwan, and Kasaan were studied, arranged chronologically, and analyzed for their cultural content. These 196 photographs represent the elapsed time between the first encounter of the camera with each village until a time when either no material vestiges of the traditional culture remained (Masset, Klinkwan, Howkan), or to the point when traditional material remains were present, but the village was abandoned (Sakwan, Kasaan). About sixty additional photographs of the deserted villages of Sakwan and Kasaan were located. These photographs, although not a part of the sample analyzed here, were frequently useful in providing information about Haida material culture not apparent from earlier photographs. These more recent photos also portray the process of decay and deterioration of features in Haida villages and, as such, have methodological importance to any archaeological work at the village sites.

I began collecting photographs of Haida culture in 1968. Enquiries regarding historic Haida photographs were made to all museums with Northwest Coast collections listed in the Inventory of Ethnological Collections (Hunter 1967). In addition, letters were written to major European museums holding Northwest Coast collections. Most of
the photographs used in this study come from the British Columbia Provincial Museum, the National Museum of Man in Ottawa, the National Anthropological Archives at the Smithsonian, and the American Museum of Natural History. Several smaller photographic archives contained important Haida prints. These archives included the Alaska State Museum, the Tongass Historical Society, the Church Missionary Society (London), the Field Museum of Natural History, the Presbyterian Historical Society, the Public Archives of Canada, and the Glenbow-Alberta Foundation. Sixty-eight original prints relating to Haida ethnohistory owned by Mrs. Helen Sanderson of Hydaburg, Alaska, were loaned to the National Anthropological Archives for copying. A number of these photographs are included in my sample.

Approximately 25% of the photographs in my sample are duplicated from collection to collection. This duplication proved advantageous. Some photo collections are much better documented than others, so a print found in one collection accompanied by little or no information is often adequately documented in another collection. Sometimes one of two duplicate prints will be sharper or one print will represent the full negative frame while the other will be cropped.

Almost all the prints in my collection come from copy negatives; the majority of glass plate negatives have been lost or destroyed through time. The ethnohistorical value of a copy print depends upon the care and accuracy of the copy photographer. Data from the original print may be omitted in the copy negative if the photographer is not careful to include all of the original print on the negative. Or, if
information is not omitted at this point, a print made from the copy negative may include only a portion of the negative image. The resolution or the contrast of copy prints may also be much poorer than the originals. Nonetheless, these are conditions that must be accepted as intrinsic to photographic ethnohistorical research.

Documentation of photo archival collections is inevitably insufficient. The Alaska State Museum, for example, has no catalogue numbers for its photographic materials. The American Museum of Natural History, holding one of the larger collections of Haida photographs, does not maintain a master list of its catalogued prints. This museum also has several negatives which have catalogue numbers, but which are not represented in the museum's print files. In a number of archives Haida photos are misfiled and placed with the photographs from other Northwest Coast tribes. It should be noted, however, that the National Anthropological Archives, in contrast to the general situation just outlined, has a very carefully documented and cross-referenced photo collection.

Although it is possible to secure a collection of photographs of Haida culture just by correspondence with photographic archives, I visited all of the major museums with large holdings of Haida photographs as well as most of the smaller archives. Only by actual research at these archives was it possible to locate Haida photographs which had been erroneously catalogued and filed. Through actual research trips to museums I also discovered that several archives maintain a number of original prints for which no copy negatives
exist. In several instances I requested and obtained copies of original prints.

Documentation and chronological ordering of the photographs proved to be no small task, involving ethnohistorical field research, internal analysis and comparison of photographs and thorough scrutiny of several types of ethnohistorical documents. Examples of extant documentation on two photos will serve to illustrate the nature of the problems encountered.

A photograph of the interior of Chief Weah's house at Masset, taken as a stereo view by Richard Maynard in 1884, was first located in the American Museum of Natural History. The museum gave the following information on the photo: "Chief Weir's house at Masset.Photographed by Will S. Taylor in 1909." The ethnohistorical literature and field research properly identified the house as that of Weah, the town chief of Masset from 1840-1883. Further, Masset informants indicated that the house had been torn down between 1901 and 1903. The American Museum's photo proved to be an enlargement of one half of the original stereo pair; the other half was found at the British Columbia Provincial Museum in Victoria. The Provincial Museum's records stated that the photo had been taken by Richard Maynard in 1885. The exact date of the photo and the definite identity of the photographer were determined from a letter written by the Masset missionary, Charles Harrison. In August of 1884, Harrison wrote to the Church Missionary Society and enclosed eight Maynard prints which he described in the text of the letter. The photograph of the
interior of Chief Weah's house was one of these views. Finally, Maynard's diary in the Provincial Archives in Victoria indicated that he was in Masset taking photographs in April and May of 1884.

Another photograph of Chief Weah's house illustrates conflicting documentation among museums. This photo shows three Haida women making baskets in front of Weah's house. The photo was taken by Edward Dossetter in the summer of 1881 and is found in three different museum photo archives. The Provincial Museum attributed the photo to Dossetter but dated it at c.1865; the National Anthropological Archives which has an 8 X 10 enlargement of a portion of the photo attributed it to Richard Maynard in 1885. The American Museum of Natural History had no information on the photograph, but the museum's file print was the only copy which showed the title plate and name plate used by Dossetter.

Ethnohistorical research at the Provincial Archives in Victoria indicated that Dossetter made only one trip to the Queen Charlotte Islands in 1881. These two examples, multiplied several times over, reveal the difficulties inherent in the documentation of historic photographs.

Chronological Classification of Photographs: Methodology

Two separate techniques which provided independent and corroborative (or disconfirmatory) evidence were used to chronologically order the photographs from each village. Internal analysis and comparison of the photographs focused upon determining the presence of elapsed time. Elapsed time was reflected in seasonal change, material acculturation, non-acculturative additions to and subtractions from
material culture. Documentary evidence, external to the photographs, provided a second method of dating. This type of evidence proved too specific to define categorically and is discussed in terms of particular examples.

In respect to elapsed time, the isolation of seasonal changes was important for it not only facilitated the relative dating of photos and the assignment of particular photographs to particular photographers; in addition, attention to seasonal changes revealed one of the biases in the photographic record of Haida culture. Although the area is forested with conifers, seasonal variation in local flora in the Queen Charlottes and in southeastern Alaska is sufficient to detect in black and white photographs. Deciduous bushes are particularly abundant in disturbed soil such as that found at village sites cleared of their forest cover. Further, the beach grass which grows just above the high tide mark changes color as it dies in the winter. Cultural patterning of economic activities at Haida villages also provided clues to season of the year. For example, large numbers of canoes in a village which was ordinarily deserted from April to November would indicate, in the absence of contradictory evidence, that the photograph had been taken in the winter. On the other hand, the presence of snow is not proof positive that a photograph was made during the winter months. Snow in this area of North America may occur as early as the end of September and as late as the end of April. Heavy snow, however, is most likely to occur during the winter months.
Evidence of material acculturation was extremely useful in the relative dating of photographs. A Haida house, portrayed at one point in time with a traditional windowless planked front facade, and at another time with pane glass windows and milled siding, has obviously undergone material acculturation, and the photographs can be arranged accordingly. It should perhaps be mentioned that this process is unidirectional. Traditional Haida houses changed to resemble Anglo-American style dwellings seen in cities such as Victoria and Sitka. There are no known instances of revived nativism in which change in Haida houses proceeded in the opposite direction.

During the period of time represented in the photo sample non-directional change in material culture was also apparent. Totem poles, for instance, were both erected and cut down during the last years of the nineteenth century. A totem pole present in one photo and absent in another is, by itself, not sufficient evidence to indicate which photo is the earlier. Additional data are required to determine the relative age of the photographs.

Natural deterioration of material culture was also helpful in ordering the photographs of Haida villages. There were several photographs in which a particular house might be intact in one photograph and in another photo might reveal planks missing, or a smoke-hole cover deteriorating. Several totem poles at Masset are shown whole and in good repair at one point in time, while in other photographs parts from these poles are obviously missing.

One source of documentary evidence used in dating the photographs
was catalogue information. As previously mentioned, the catalogue data at some museums were inaccurate and of little use, but in a few museums quite reliable data accompanied the photo collections.

Photographers' nameplates and title plates were welcome evidence, particularly in the case that a photographer had made only one trip to the Haida area. The appearance of photographs (or lithographs made from identified photos) in early publications provided a means of assigning a minimum age to the photos. Some photographs could also be assigned a minimum age through archival accession records. The diaries of two photographers, Richard Maynard and C. F. Newcombe, were immeasurably helpful in dating photographs. An avid collector of ethnographia, Newcombe also compiled and indexed over 1000 prints and negatives of Northwest Coast tribes, many of which he himself had taken. The Newcombe photo index and Maynard's diary were of further value because they documented several photographs which do not exist in any known collection today.

A living descendant of one early photographer was contacted. Mr. Anthony Barnes of Surrey, England, possesses the original prints his uncle, Bertram Buxton, made of Masset in 1882. Information from Mr. Barnes corroborated my previous assignment of five photos to the photographer Buxton. Correspondence from the Church Missionary Society in London provided another source of documentary evidence. Rev. Charles Harrison from Masset documented eight Maynard views of Masset as having been made in 1884.

Despite the variety of documentary evidence and the general
success of dating photos by a combination of internal analysis and documentation, there are several photographs whose chronological positions remain doubtful. The photographs of Howkan village, in particular, were difficult to organize. This village spread over two coves and because of its extent, there are few overlapping photographic views from different time periods. Nonetheless, the general approach to the photographic data described above yielded good results for the remaining villages.

The Photographers

Seventeen photographers have been identified for the Haida photographs, and to them are attributed 165 of the 196 photographs. Undoubtedly, several photographers remain anonymous, for thirty-one views could be assigned to no photographer. The photographers, sixteen men and one woman, can be categorized as follows: museum collector and/or amateur ethnographer; professional photographer; government or commercial agent; missionary; local resident (excluding missionary). John R. Swanton, the only anthropologist to write an ethnography of the Haida, took no photographs.

Four individuals can be considered amateur ethnographers for they contributed published as well as unpublished material on the Haida. Two were, in addition, collectors for museums before and

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2Edward S. Curtis, an amateur ethnographer, published a volume on the Haida in his series, The North American Indian (1916). He also included portraits of Haida in traditional dress, but because the photos are reconstructional and date from the second decade of the present century, they are not considered in this study.
after the turn of the century. George M. Dawson, appointed by the Geological Survey of Canada to undertake a survey of the Queen Charlotte Islands, took the first photographs of the Queen Charlotte Haida villages in 1878. At Masset, Dawson took two photos of Haida houses and totem poles, one of the mission buildings, and a view looking up Masset Inlet from the Indian village. This latter photo is not included in the sample.

Ensign Albert Niblack, a member of the Navy unit charged with surveying Alaska for the U. S. Coast and Geodetic Survey, took fourteen photographs of the village of Kasaan and one of Howkan in the summer of 1885. The ethnographic material Niblack gathered on this trip was published by the U. S. National Museum in its annual report for 1888. George T. Emmons, a Navy lieutenant who spent much of his later life around the inland waters of Alaska, was a voracious collector of native artifacts which he sold to major museums in the United States and Canada. Emmons visited all of the Alaskan Haida villages where he took three known photographs and possibly five more.

The most prolific photographer, collector, and ethnologist was Dr. Charles F. Newcombe, a botanist who recorded with pen and camera much valuable ethnographic data on the Haida. In his rounds to the Queen Charlottes and southeastern Alaska in 1900, 1901, and 1902, Newcombe took sixty-two photographs of Masset, Sakwan, Klinkwan, Howkan, and Kasaan.

Eight of the seventeen photographers depended on the camera for their livelihood. Richard Maynard, a photographer from Victoria,
accompanied Newton Chittenden on an exploratory expedition to the Queen Charlotte Islands in 1884. Thirteen views are attributed to Maynard from this voyage. Many more photographs must have been taken by Maynard on this trip because during his first day at Masset, Maynard's diary documents nine plates taken, and on the second day Maynard (n.d.) says, "I started out to take the village. Exposed all the plates I could carry then returned, got lunch, changed big plates, and started up again." In 1888 Maynard and his wife, also a photographer, took a steamship voyage as far north as the Queen Charlottes. Five photos of Masset, one with Mrs. Maynard in the foreground were taken by Maynard in the summer of 1888.

Edward Dossetter, a photographer listed in the Victoria Directory only for the years 1882-83, accompanied Indian Commissioner Israel W. Powell on a tour of the northern British Columbia coastal Indian villages in the summer of 1881. At Masset Dossetter took eight photos.

L. G. Davidson, a photographer from Portland, Oregon, advertised thirty-six different views of Alaska for sale. Three photos of Howkan, probably taken in 1883, were made by Davidson. F. La Roche, a photographer from a Seattle studio, took one view of Kasaan around 1900.

Two different photography establishments represented in this sample of photographs were located in Alaska itself. Winter and Pond, a Juneau firm which sold large views as well as small postcards, took seven views of Klinkwan and Howkan, and the Photo Shop in Sitka made a postcard view of Klinkwan in 1892. Edward de Groff, a photographer from Sitka, took two views of Howkan.
In 1897 George Dorsey, Curator of Anthropology at the Field Museum of Natural History, journeyed to the Queen Charlottes to collect material for the museum. He was accompanied by the museum photographer, E. P. Allen, who took six views of Kasset which were published the following year with Dorsey's account of the trip (Dorsey 1898).

Although there were surely tourists on board the Alaska Steamship Company's boats in the late nineteenth century who photographed the coastal Indian villages, these individuals remain anonymous today. Only one photographer can be classed exclusively as a tourist to the Haida area. Bertram Buxton, a wealthy Englishman from Surrey, traveled to the Queen Charlottes in 1882. At Nasset he purchased a totem pole which he brought back to England and presented to his mother on her birthday. According to his sister's son, Anthony Barnes of Surrey (personal communication), Buxton was a "keen amateur photographer." Five views of Nasset were made by Buxton on this trip.

Mrs. Forrest Hunt, wife of a drugstore entrepreneur from Ketchikan, Alaska, is classified as a local resident. She took two photographs of Klinkwan in 1906 and five of Howkan in the same year. A Kasset informant mentioned that a member of Kasset village, long deceased, used to take pictures and develop his own film just after the turn of the century. Since none of his photographs survived, it is not known if they contained any traditional Haida material.

Two photographers have been categorized as government or commercial agents. James McDougall, a Hudson's Bay Company agent, took a
photo of Masset dated 1893. Six photographs taken of Klinkwan village by Harry Clifford Fassett were the property of the U. S. Bureau of Fisheries. Possibly Fassett was a fisheries officer, or he might have been employed by the Bureau in the capacity of photographer.

Although as early as 1885 the Church Missionary Society encouraged its personnel to take up amateur photography, only one missionary to the Haida was known to be a photographer. J. H. Keen, missionary at Masset from 1890 to 1898, took several views some of which were collected by Newcombe. The oldest informants at Masset in 1970-71 remembered Keen taking pictures in the village. Keen appears with his camera and tripod in a photograph made around 1893 by an unknown photographer. Only one photo attributed to Keen survives.

Photographic Technology

Photography of Haida subject matter began on the heels of a significant innovation in photographic technology. In the early 1870's the dry glass plate negative was perfected. Prior to this innovation, glass plates were coated with a light sensitive emulsion and had to be exposed and developed before the emulsion dried. With the invention of the dry plate the necessity for immediate exposure and processing was eliminated and the darkroom procedure could be postponed for some time. According to Greenhill (1965), the early dry plates were contact size and required a longer exposure than the wet plates. But by the 1880's the dry plate had an exposure range of about one to one-half second under normal conditions, equal to an
ASA of between five and ten (Walter Johnson, personal communication). The earliest dry plate negatives from the 1870's were expensive compared to the wet plates, but by the 1880's the cost of dry plates was reduced to about two to three cents per shot.

George M. Dawson, the first photographer of the Queen Charlotte Haida people and villages, was using the new dry plates in 1878. Maynard in 1884 was using dry plates, processing them in the field, and even doing enlarging for one customer on the Queen Charlottes. Niblack was undoubtedly also using dry plates when he photographed Kasaan and Howkan in 1885.

Although the early dry plates were slow and incapable of recording much movement, Maynard attempted to photograph human activity during his 1884 expedition to the Queen Charlottes. He records in his diary on Saturday, May 10, 1884: "Went with the fishing party today. Was going to take a photo but they did not draw the net. But took a view on the Indians gathering herring spawn" (Maynard n.d.).

Technological improvements on both flexible film and glass plate negatives made more rapid exposures possible in the 1890's. By this time both glass plates and film had a sensitivity range equal to an ASA of twenty to twenty-five (Walter Johnson, personal communication). Smaller negatives and faster film made the hand held camera a reality by the turn of the century, and the tripod was no longer required for every photograph.

Examination of second or third generation copy prints can tell us little about the technology behind the original negative. It is
impossible, for example, to tell from a copy print, if the photographer was using wet plates, dry plates, or flexible film. However, providing the copy photographer has not omitted data from the original print, one can often determine something about the type of original print. For instance, nine of the 196 photographs (all from Masset) in my sample are known to have been stereoscopic views.

Stereo views, an accoutrement of middle and upper class Victorian parlors, were marketed by both individual photographers and large firms. Maynard advertised on the reverse side of his stereo views, "Views of British Columbia and Vancouver Island for sale." Large individual photographs were also a saleable item in the late nineteenth century. I. G. Davidson, the photographer from Portland, advertised over 250 separate 5½ by 8½ inch photographs for sale. In the 1890's, the postcard became another popular medium for disseminating photographic scenes, and postcards were made of each of the five Haida villages. The Alaska Steamship Company's tours of the inland waters stimulated the market for postcards of the Alaskan Indian villages.

The Chronology of Photographs: A Summary

The methodology for dating the photographs of Haida culture has already been detailed, and the photographic record of the Haida will be analyzed in succeeding pages. This section offers a brief explication of the material presented in Tables 1 to 5.

Fifty-seven of the 196 photographs are from Masset (Table 1) and represent a twenty-three year span of time from 1878 to 1901. Eight
photographers of Masset are known, although several more may be represented in the sample. The assignment of photographs to Dawson, Dossetter, Buxton, Maynard, Allen, and Newcombe was done with considerable confidence, but the photographer(s) who took nine photographs in 1893 remains unidentified. Content analysis of these photographs indicated that all nine were very likely taken within at most one or two days of one another. J. H. Keen with camera and tripod appears in one of these photographs, so he must have been taking pictures at this time. Another photo shows exactly the same view, minus Keen. This photograph was attributed to Keen. Another of this group of nine photos was identified by the Hudson's Bay Company as having been taken by James McDougall, a company employee. Lacking any further information on the remaining seven photographs, I attributed them jointly to Keen and McDougall.

There are only eight photographs of Sakwan (Table 2), and they cover about a twenty year period. Both the British Columbia Provincial Museum and the American Museum of Natural History independently documented photo AMNH 124,318 as having been taken in 1888. In the absence of any other data, 1888 was accepted as correct. According to Dr. Viola Garfield (personal communication), Lt. George Emmons made the 1888 photograph of Sakwan. Comparison of this photograph with the content of photo BCPM 1356 revealed that the latter was at least a year older. An approximate date of 1885 was given photo BCPM 1356. The 1905 date for two Sakwan photographs must also be considered approximate; these photos were dated on the basis of the age of indi-
viduals identified in the photographs.

Kasaan is represented by fifty-seven photographs (Table 3). This village, first photographed in 1885, was recorded on film over a period of eighteen years before its abandonment in 1903 or 1904. No difficulty was encountered in identifying photographs taken by Niblack, LaRoche, and Newcombe, but the photographers of several prints are unknown. The two photographs dating from 1893 were attributed by Dr. Garfield to Lt. Emmons. There was no documented date for the LaRoche view, nor for the three National Museum of Canada photographs which follow it in Table 3. The content of these four photographs indicated that they were all more recent than the 1899 photographs from the A. K. Fisher album of the Harriman Expedition to Alaska but were taken prior to the Newcombe photographs of February, 1902. Thus, the four photos were assigned a date of c.1900. The date of 1903 given to three Kasaan photographs comes from the British Columbia Provincial Museum; I found no evidence in the photos themselves to contradict this.

Klinkwan village is represented by thirty-one photographs taken over a period of eighteen years. Three photos of Klinkwan were dated at 1888 by the British Columbia Provincial Museum; although I had no other documentary data on these photographs, comparison of them with the other Klinkwan photos pointed to their earlier date. Because Emmons apparently made one view of Sakwan in 1888, I tentatively assigned the 1888 Klinkwan photographs to Emmons. A photograph from the Photo Shop in Sitka had "Klinquan 1892" written on its face, and this print served as a base for dating many of the remaining photographs.
of Klinkwan. Two photographs from the American Museum of Natural History taken by unidentified photographers were determined to be later than the 1892 view of Klinkwan but prior to the six views of Klinkwan taken by H. C. Fassett in 1899. Therefore, these photographs were given a date of c.1895. Fassett took one view of Klinkwan which has been documented by the Smithsonian as having been made during the 1899 Harriman Expedition to Alaska, and the remaining five Fassett photographs, on the basis of internal evidence, were determined to have been contemporary. Two of the three Winter and Pond photographs of Klinkwan were dated according to the age of an individual who, in these photographs, is a young boy, while in a photo taken at Hydaburg in 1912, he appears as a young man. The third Winter and Pond photo was dated by comparison with other village panoramas. Two photographs which were taken before 1906 but definitely after 1902 were assigned dates of c.1903. The photographs taken by Mrs. Hunt in 1906 were dated by the Tongass Historical Society.

The sample of Howkan photographs given in Table 5 comprises forty-three prints made between c.1883 and c.1908. Six of the photographers of this village are definitely identified, and Emmons, again assigned two prints dated from 1888, makes the seventh. The chronology of the Howkan photographs was problematic. The only dates that could be fixed in time were 1885 when Niblack photographed Howkan, 1902 when Newcombe was there, and 1904 and 1906 when Mrs. Forrest Hunt photographed the village.

If photographs BCPM 1360 and AMNH 124,327 have been correctly
dated at 1888 by the British Columbia Provincial Museum and the Amer­
ican Museum of Natural History, then on the basis of internal evidence, the following chronological assignments can be made. The uncatalogued photograph from the Presbyterian Historical Society predates by at least one year the 1888 photographs; Photo S 34,563 showing exactly the same sector of the village as the Presbyterian Historical Society photo, is at least one year earlier than it. The three photographs taken by Davidson predate photo S 34,563 and have been assigned the date of 1883. Photo S 72-545 of Chief Yeitadzi lying in state was virtually impossible to date as the photograph was taken inside a house and shows only the dead chief and some of his property. Because a mortuary totem pole appears in front of Yeitadzi's house after 1890, the photograph of the dead chief was tentatively dated at 1890.

Analysis of the 196 photographs in respect to their portrayal of late nineteenth and early twentieth century Haida culture revealed patterning in content, time, and space. The results of this analysis are discussed in the following pages.

Photographic Content

One hundred and eighty-one of the 196 photographs or 92.4% have as their subject matter Haida houses and totem poles in the permanent winter villages of Masset, Sakwan, Howkan, Klinkwan, and Kasaan. It is apparent that Haida architecture has been recorded on film to the near exclusion of human behavior. In most cases even the presence of other types of material culture in the photographs is incidental. In
nine photos canoes can be seen, but the camera's view in almost all of these photographs is directed toward a house or totem pole. Three of the 196 photographs record Haida basket or mat making. Two of these photographs, both from Masset, show Haida women out of doors making spruce root baskets. In an 1881 Dossetter photograph the three basketmakers have most of the necessary equipment (a basket stand, a bucket of water to keep material pliable, and a knife for splitting the root). But in the photograph of basketmaking taken by E. P. Allen (FMNH 854) there is no water nor any tools; the basketmaker is posed holding the strands of her weaving. Florence Davidson of Masset noted that because spruce root darkened upon exposure to sunlight, weaving was usually done indoors. A third photograph of weaving taken by Newcombe at Kasaan shows a partially woven cedarbark mat, but no person appears in the photograph.

We know from both a letter written by J. H. Keen and from Newcombe's negative list that other Haida material culture was photographed. Newcombe, in 1902, photographed canoemaking near Kasaan, and on a tour of Haida campsites near Masset in 1893, J. H. Keen (n.d.a) also photographed canoemaking. Newcombe collected one of Keen's prints, but this photograph has not survived in any known collection.

Evidence of economic activity other than canoemaking and basketry is present in some of the photographs. Two photos from Klinkwan show halibut drying on a rack in front of a house. Both halibut and octopus are seen hung up to dry in photographs from Masset. Seaweed, also dried out of doors, was not noted in any photograph. Most likely,
seaweed was traditionally dried at campsites where it was collected. For possibly the same reason, the preparation of berries was not documented in any of the photographs. The Maynard photograph of Haida gathering herring spawn south of Masset has apparently been lost.

Fourteen of the 196 photographs focus primarily on Haida people. Two of these photographs have been discussed in respect to basketmaking. Five of the fourteen photographs show individuals in traditional ceremonial regalia. Dossetter in 1881 photographed four secret society dancers at the front of a house at Masset. Three photographs of Haida in ceremonial clothing were taken at Klinkwan. Winter and Pond around the turn of the century made two photographs of Klinkwan people in Chilkat and button blankets. It is interesting to note that one of the individuals in these photographs, although attired in traditional ceremonial dress, is wearing a pair of fishing boots. The third photo, taken by an unidentified photographer about 1903 shows ten seated Haida dressed in button blankets. In 1902 at Kasaan Newcombe photographed a couple and child in button and chilkat blankets. At least three more photographs of Haida people were made in the late nineteenth century.

Keen (n.d.a) reports in a letter to the Church Missionary Society in April of 1893, "I took two or three portraits of characteristic Hydah here, copies of which I now enclose, together with a few descriptive notes...." The Church Missionary Society does not have these photographs today. The U. S. Revenue Cutter Wolcott, carrying James G. Swan to the native Alaskan villages in 1875, also had on board an official photographer. On July 2, 1875, at Klinkwan, Swan (n.d.a) notes,
"Kinowen with his wife and four children and a number of Indians came on board and their pictures were taken by Mr. Broadbent." Neither do these photographs exist in any known collection.

By 1884 it was not absolutely necessary for a photographer's subject to maintain a stiff pose, as indicated in Maynard's apparent success in photographing the Haida collecting herring spawn. Yet most of the photographs of Haida people are rather stiffly posed. Scidmore (1885:27), speaking of a Tlingit Indian on board one of the Alaska steamships, suggests that such posing may have been a typical response of the Northwest Coast native to the camera:

At Cape Fox /a Tlingit village/ a shrewd Indian came on board and spied the amateur photographer taking groups on deck. Immediately he was eager to be taken as well...and pleaded so hard that the artist finally relented and turned his camera upon him. The Indian stiffened himself into his most rigid attitude...and when the process was over could hardly be made to stir from his pose.

At the same time, the ethnohistorical literature indicates that the posing of native subjects for the camera may reflect the photographer's conception of how an Indian ought to appear. B. W. Leeson (1914:492), a resident photographer in the Kwakiutl and Salish area of British Columbia, related in an article his ventures in photographing the natives of the area. Regarding his photograph entitled, "The Passing of the Indian", a portrait of the last member of the Klaskeno Kwakiutl tribe, he says, "I explained to him just what I wished him to do, show him as the last of his tribe, asking him to look 'sick tum-tum', and he responded quite well."

At a new village on North Island on August 23, 1878, prior to the
commencement of a large potlatch, George M. Dawson took two photographs of Haida people. The remarks recorded in his diary about these photos suggest one reason why there are so few photographs of Haida people.

Took photo of two chiefs and of as many of the rest of the people as would come. Most, however, disliked the idea, and especially the women, not one of whom appeared (Dawson n.d.).

Another reason for the paucity of photographs of Haida people is indicated by Maynard. He recounts the following incident:

Mr. MacKenzie /Hudson's Bay Company factor/ wanted me to take a photo of two images and he wanted an Indian to stand in the centre to set off the size of them, and he /the Indian/ wanted pay. He offered him a blanket /value $1.50/ but it was no go. So we find (sic) some other things around and got the photo (Maynard n.d.).

Leeson (1914:492) also mentions the problem of reimbursement and states that it acted as a damper "upon the enthusiasm that might otherwise lead me to make a great many more exposures than I do."

Only three Haida houses had their interiors photographed. These belonged to Chiefs Weah and Anétws of Masset and to Chief Skowal of Kasaan. Maynard photographed both Masset house interiors in April or May of 1884, and Niblack made two photographs of Skowal's house in the summer of 1885. Photographing a house interior in the 1880's required an exposure time of several minutes as there was no flash equipment. In addition, interaction with the people and perhaps reimbursement were involved.

Although the sample of 196 photographs shows two funerary displays (that of Chief Yeítadzi at Howkan and that of Chief Skowal at Kasaan), no funeral rites are depicted. In addition, there are no photographs of the carving or raising of totem poles, of house build-
ing, of feasts or potlatches. In short, with the exception of the two funeral displays, no portions of the life cycle rituals of the Haida are shown and nothing of the ceremonial cycle is depicted in the photographs.

As discussed later, one explanation for these omissions in the photographic record of the Haida is seasonal. Another reason is the fact that such traditional activities, subject to the vociferous disapproval of the missionary (at Howkan, and particularly at Masset), were frequently kept secret from the missionary or performed away from his watchful eyes. Rev. Charles Harrison, missionary at Masset, relates in 1884 a potlatch that took place upon the burial of two chiefs. Harrison (n.d.a) states, "They tried every conceivable plan to keep the funerals secret." Informants in 1970-71 told of two potlatches (one of which was hosted by a Haida considered by the missionary to be the most civilized man in Masset) given around the turn of the century at North Island. Even earlier potlatches were being given at remote village sites that were nearly or completely abandoned. Dawson happened upon one of these potlatches in preparation at North Island in 1878. Although he photographed two chiefs and a group of people, he did not remain here long enough to photograph any of the potlatch proceedings. Generally it would have been difficult for a photographer to record an event surrounded by secrecy or to seek out the more remote village sites where a potlatch might be in progress.

\[\textit{George M. Dawson did record on film the preparations for a potlatch at the Central Haida village of Tanu (Photo IMC 242).}\]
Other explanations for the failure of photographers to record such activities are discussed in relationship to the photographers' perceptions of and participation in Haida society.

Temporal Patterns

All photographs were examined to determine the season of the year in which they were made. A few photographers (Dawson, Maynard, Newcombe) recorded the month and year in which they took particular photographs. In other instances internal evidence was the only basis for ascertaining season. While it was quite easy to distinguish photographs taken in the summer months, it was difficult to determine if a photo were made in the early spring, late autumn or middle of the winter. Snow may fall throughout this period of time and the level of vegetation is about the same during these three seasons. Though all photographs were assigned to either the summer, spring-fall, or winter, those assigned to the latter two categories usually were done so on the basis of documentary evidence.

A tally of the seasonal distribution of Haida photographs presented in Table 6 clearly shows the preference of summer for picture taking. One hundred and thirty-eight of the 196 photographs or 70.4% were taken during the summer months, forty-three (21.9%) during the spring or late fall, and only fourteen or 7.1% during the winter months. Thirteen of these fourteen winter photographs come from Kasaan and were taken by C. F. Newcombe in February of 1902.

There are several reasons for the seasonal skewedness in this photographic record. A primary reason was the matter of travel.
Charles Harrison (n.d.e), the Masset Missionary, writing in 1899 to a member of Parliament regarding the recent visit of the Indian Agent says, "This was the only opportunity he could get of coming here this year owing to the stormy sea between here and the mainland during the winter months." Alaskan Haida villages were more accessible during the winter than the Queen Charlottes as the former lay in protected waters. However, the Alaska steamships in the 1880's and 1890's only ran regularly during the summer months when the canneries were in operation, so getting to a Haida village during the wintertime would have been much more difficult than making the trip in the summer. Newcombe, who did visit these villages in the wintertime at the turn of the century, had to hire boats to take him where he wanted to go.

Climate was undoubtedly another factor in the seasonal patterning of the photographs. While the climate is mild for the latitude, most of the heavy precipitation in the area falls during the winter months in the form of snow and rain. These are also the months of the heaviest gales. The general unpleasantness of the winter weather aside, taking photographs in the summer made more sense from a technological point of view. Early photographic plates were slow, and dark overcast days only lengthened the exposure time necessary to make a photograph. Contrast in the negative plate was enhanced on bright, sunny days and exposures could be made in much less time, lessening the changes that the plate would be ruined by some movement in the field of view. Freezing temperatures also retarded the sensitivity of the photographic plates used in the 1870's and 1880's and necessitated an adjustment in
exposure time. On the northern Northwest Coast, the months of June, July, and August are the warmest as well as the sunniest months. It is understandable from the point of view of climate why these months were the most popular for photography in the Haida area.

The implications of seasonal bias are significant in considering the photographic record of Haida culture. The fact that 70.4% of the photographs were made during the summer, 21.9% during the spring-fall, and only 7.1% during the winter, indicates that many of the seasonal aspects of Haida culture went unrecorded. In all the Northwest Coast societies, winter was the ceremonial season. In Haida society, several potlatches might take place in a village each winter; novices would be initiated into the secret societies; marriages would be arranged and contracted; individuals would succeed to chieftainships; feasts would be held. The seasonal bias is therefore one explanation for why these activities were not recorded on film.

The seasonal patterning of the Haida photographs also indicates that those moments recorded on film were those when, for the most part, the villages were devoid of people. From early spring to November the Haida abandoned the winter villages to engage in a variety of subsistence pursuits. This explains why few photographs of the village sites contain canoes in them. This fact also offers the obvious explanation for why no people appear in most of the village scenes—there were none.

Spatial Patterns

The general location of the camera relative to its subject
matter, its field of view, its omissions, and the biases toward photographing certain areas of a village are considered in the spatial representation of Haida culture.

Approximately one-third of the photographs of Kasaan were taken from the water. Only three photographs of Klinkwan were made from a boat, none of Howkan, half of the eight Sakwan photos, and one of Masset. A photograph taken from a boat in front of a Haida village required virtually no interaction between photographer and villagers. From the point of view of human interaction, these were certainly the easiest photographs to make; in addition, photographs taken from the water proved to be the most valuable in the study of settlement pattern. These photographs not only present a frontal view of the village but they portray it in the manner that the Haida constructed their villages to be seen. In a Haida village, all exterior decorative attention was intentionally directed towards the fronts of houses and the fronts of totem poles which both faced the water. The backs of totem poles were hollowed out and left rough, and the sides and rear of the houses received no decorative embellishment. The social structural implications of the patterning of figures on totem poles (discussed in Chapter V) meant that it was just as important for houses and poles to be seen from the water as it was for the occupants of houses to see the water.

Incidentally, there are no photographs of the Haida villages which would present the features of the village as a resident might see them. With the exception of two photos of Klinkwan, there are no photos of
the backs of houses nor of the area of the village behind the houses. All the photographs of house interiors, however, do show that portion of the house which was of most importance to its Haida occupants, the rear section. Three photographs of the interior of Chief Skowal's house at Kasaan, taken at different times, show exactly the same portion of the back of the house; in two interior shots of Chief Weah's house, made in 1884 and 1897, the same rear sector of the house is shown. And, an 1884 stereo of the inside of Chief Anétws' house shows the rear portion of the house. There are no photographs of the inside of Haida houses which show the front of the house.

Grave areas received differential coverage by photographers. Only Newcombe searched for and photographed shamans' graves. Two of the graveyards at Kasaan were photographed, but a third was virtually ignored; at Klinkwan, two rows of burial poles were photographed, but there were other burial areas at this village as well. A point of land at Howkan with burial poles received extensive photographic coverage, but an island in front of the village containing graves was ignored. Further, with the exception of one photo from Klinkwan, burial poles were photographed from the front and did not reveal the grave boxes placed in their back sides.

In the two villages with a second row of houses, Masset and Kasaan, seldom did photographers venture behind the first row of dwellings to photograph the second row. One house at Masset in the second row was photographed by itself twice, and Chief Skowal's first house (4) at Kasaan, which was located in the rear row, was photographed...
Photographs of individual houses were tabulated to see if any preferences for photographing particular houses existed. Five houses at Howkan were individually photographed. The house of Skulka, chief of the Hauq'ew'ys' clan of the Raven moiety was photographed four times; the house of the chief of the Tch'aifłá'nas, "Mista John", was photographed four times; the house of Chief Ye'tadzi, a chief of a Yak uhln'-nas subclan, was photographed three times. An unidentified individual by the name of Chief Jim had his house photographed once by Davidson; and the house of an unidentified man two houses south of Mista John's house was photographed twice. At Masset three houses were photographed more often than any others. Chief Weah, the town chief, had his house photographed, inside and out, eight times. Chief Anót'ws' house, two houses south of Weah's, was photographed both inside and out five times, and a house in the second row belonging to an unidentified individual was photographed twice. At Sakwan no house was photographed by itself until some time after the village was abandoned. At Klinkwan, Chief Edinsa's house with carved housepit retaining walls was photographed by Newcombe in 1901 after it had been abandoned. Q'aid nés, the house of a high ranking Yak uhln'-nas chief at Klinkwan, was photographed by itself twice, and a house with cannery siding, owned by a prominent chief known by the anglicized name of DeWitt Wallace, was photographed three times. At Kasaan, Houses 2,4,8,11,13,14 were photographed once by themselves, while House 5, belonging to Chief Skowal, the Taslá'nas clan chief, was
photographed inside and out six times. It would seem that the houses of the most important individuals were recorded individually at least once and generally several times.

Although the photographs are categorized by major village, I also searched for photos of seasonal campsites. There are very few of these and they have not been included in the chronologies. One is a turn of the century view of a shack on North Island which was used by Northern Haida fishermen during the summer. Another, taken before the turn of the century, shows a Haida named Glawa and his wife at the abandoned village of Kung. Beside them is a rack with halibut drying on it. Newcombe took a few views of an encampment of Kasaan people at Karta Bay where they worked for the Baronovich fishery, and from the Stanley-Brown collection of photos at the National Anthropological Archives comes a photo of Kaigani Haida drying halibut at Nichols Bay. In general, seasonal campsites were ignored by photographers.

Cultural Biases of the Photographers

At least eight of the photographers who recorded Haida villages and people on film in the late nineteenth century were doing so for profit. Their motive was not to record Haida culture as it was disappearing; rather, they were intent on photographing what would sell. They were attracted to that which was relatively accessible and, at the same time, exotic. Haida villages, with their large communal dwellings and towering carved columns, were admirably suited to these ends. The photographers, with the exception of Newcombe, participated minimally in Haida culture. They photographed villages during the
months when they were vacated and located their cameras some distance from their subject matter, in some cases taking views from a boat in front of a village. They did not generally pursue the Haida to their summer camps to photograph aspects of the subsistence complex. One reason for this was the inaccessibility of these summer camps. In the second place, while the more traditional aspects of the subsistence complex were changing, there were still traditional houses and totem poles left to photograph at the village sites. Few Haida people were photographed. While a village could be photographed without direct contact with its inhabitants, photographing a person was not as simple. Interaction was required and remuneration was involved whenever the camera turned to photograph the native.

Photographing the interior of a Haida house also necessitated interaction with the Haida, and probably retribution to the house chief was required. These facts, plus the difficulty of gaining access to the interior of a house when its owner and householders were absent during the summer, probably account for the dearth of photographs of Haida house interiors.

As mentioned earlier, the lack of photographs of potlatches was a factor of temporal patterning. But likely the photographer's minimal involvement in Haida culture also accounts for the absence of potlatch photographs. Even Newcombe, whose understanding of Haida culture was greater than that of any other photographers of the Haida, has no photos of potlatching. Newcombe's camera concentrated on houses and totem poles; even the economic activities he observed and recorded
generally escaped his camera. But by the time Newcombe and his turn of the century contemporaries were photographing Haida villages, totem pole raising and the attendant potlatch had ceased as had the traditional housebuilding potlatch. Though the mortuary potlatch continued, its superficial traditional features were eradicated. The potlatching practiced at the time Newcombe was in the field did not appear in any way traditionally Haida. Newcombe and others of his time were oriented towards collecting and photographing what remained of traditional Haida material culture.

The Photographs as Anthropological Data

It is obvious that the photographic sample referred to in this study is different from what a modern ethnologist would compile were he allowed an excursion back in time to photograph the Haida. Very little behavioral data is recorded as Haida photographic ethnohistory. Despite the shortcomings of the photographic sample, the Haida photographs have much to recommend them as anthropological data. The very aspects of Haida culture given the most attention in the ethnographic literature—feasting, potlatching, kinship and religious organization—are those categories of the culture which either were not photographed or by their nature are obviously impossible to record photographically. On the other hand, those ethnographic topics ignored in the literature on the Haida—material culture, settlement pattern, culture change—were photographed, even if only incidentally. Swanton (1909), Curtis (1916), and Murdock (1934a, b, 1936) were little concerned with the turn of the century Haida culture; communal Haida houses, an
incongruous mixture of traditional and Anglo-American elements, the mortuary complex revealing the effects of Christianity, Haida people outfitted in old military uniforms and Hudson's Bay blankets, the process of material acculturation--these were of no interest to the historical reconstructionists. Neither has the period just before and after the turn of the century held much fascination for those anthropologists focusing on the contemporary Indian communities of the 1960's and 1970's. In effect, the period of time recorded as Haida photographic ethnohistory has been ignored both by anthropologists working in the early twentieth century and by those conducting studies in the area today. Yet these photographs provide insight into traditional Haida culture just before it disappeared, and they are informative about how this traditional culture did vanish.
<table>
<thead>
<tr>
<th>Date</th>
<th>Photographer</th>
<th>Number</th>
<th>Catalogue Number</th>
</tr>
</thead>
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<tr>
<td>1901</td>
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<td>3</td>
<td>BCPM E66; BCPM E93; BCPM 16243</td>
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<td>C. F. Newcombe</td>
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<td>BCPM 21; BCPM E88; BCPM E91</td>
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<td>1897</td>
<td>E. P. Allen</td>
<td>6</td>
<td>FMNH 845; FMNH 846; FMNH 852; FMNH 854; FMNH 2744; uncat. photo in Dorsey (1898)</td>
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<tr>
<td>1893</td>
<td>J. H. Keen</td>
<td>1</td>
<td>BCPM 1354</td>
</tr>
<tr>
<td>1893</td>
<td>J. McDougall</td>
<td>1</td>
<td>HBC T-15</td>
</tr>
<tr>
<td>1893</td>
<td>J. H. Keen and/or J. McDougall</td>
<td>7</td>
<td>BCPM 1355; BCPM 18429; BCPM 18431; BCPM E1023; NMC 71-4369; NMC 71-4370; NMC 71-4371</td>
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<td>?</td>
<td>2</td>
<td>BCPM A16239; BCPM A16240;</td>
</tr>
<tr>
<td>1888</td>
<td>Richard Maynard</td>
<td>13</td>
<td>AMNH 24482 (BCPM A16434); BCPM E157; BCPM E666; BCPM E667; BCPM 1293; BCPM 54040; BCPM 16235; CMS 4; CMS 5; NA-860-6; NMC 100454; NMC 100791; NMC 100794</td>
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<td>1882</td>
<td>Bertram Buxton</td>
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<td>AMNH 32950; NA-1141-12; NA-1141-13; NMC 100458; NMC 62764</td>
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<td>1881</td>
<td>Edward Dossetter</td>
<td>8</td>
<td>AMNH 24422; AMNH 24426; AMNH 43214; AMNH 334106; BCPM 37752; NA-1141-14; NMC J-20558-12; NMC J-20558-10</td>
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<td>1878</td>
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## Table 2

**Chronology of Sakwan Photographs**

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<th>Date</th>
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<td>c.1905</td>
<td>?</td>
<td>2</td>
<td>S 72-532; S 45,123M</td>
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<td>BCPM 214</td>
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<td>BCPM 235; BCPM 236; BCPM 237</td>
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<tr>
<td>1888</td>
<td>George Emmons</td>
<td>1</td>
<td>AMNH 124,318</td>
</tr>
<tr>
<td>1885?</td>
<td>Albert Niblack?</td>
<td>1</td>
<td>BCPM 1356</td>
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<td><strong>TOTAL</strong></td>
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### TABLE 3

**CHRONOLOGY OF KASAAN PHOTOGRAPHS**

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<td>2</td>
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<td>C. F. Newcombe (Feb)</td>
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<td>BCPM 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165 (or, 151), 166, 167</td>
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<td>c.1900</td>
<td>H. C. Fassett</td>
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<td>S no #</td>
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<tr>
<td>c.1900</td>
<td>F. La Roche</td>
<td>1</td>
<td>NMC 71-6460</td>
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<tr>
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<td>?</td>
<td>3</td>
<td>NMC 71-6507; NMC 71-6508; NMC 71-6509</td>
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<td>A. K. Fisher album from Harriman Expedition</td>
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<td>1894?</td>
<td>?</td>
<td>3</td>
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<td>George Emmons</td>
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<td>S 4320; S 14, 838</td>
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<td>Albert Niblack</td>
<td>14</td>
<td>S 3867, 3868, 3872, 3873, 3874, 3879, 3880, 3881, 3882, 3883, 3884, 3885, 3886, 3887, 3888; No #; In Porter (1890; facing p.30)</td>
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**TOTAL** | 57
<table>
<thead>
<tr>
<th>Date</th>
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<th>Number</th>
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<tr>
<td>1906</td>
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<tr>
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<td>2</td>
<td>AMNH 263186; No #, In, Keithahn (1963:26)</td>
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<td>1902 (March)</td>
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<td>c.1900</td>
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<td>1899</td>
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<td>4</td>
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<tr>
<td>c.1908</td>
<td>Winter and Pond</td>
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<tr>
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<td>Ms. Forrest Hunt</td>
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<td>THS 139; THS 140; THS 188</td>
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<td>?</td>
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<td>Edward de Groff</td>
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TABLE 6
SEASONAL DISTRIBUTION OF NORTHERN AND KAIGANI Haida PHOTOGRAPHS

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<td>Sakwan</td>
<td>3</td>
<td>0</td>
<td>5</td>
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<td>8</td>
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<tr>
<td>Kasaan</td>
<td>44</td>
<td>13</td>
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<td>57</td>
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<tr>
<td>Klinkwan</td>
<td>22</td>
<td>0</td>
<td>9</td>
<td></td>
<td>31</td>
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<tr>
<td>Howkan</td>
<td>27</td>
<td>1</td>
<td>14</td>
<td>1</td>
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</tr>
<tr>
<td>TOTAL</td>
<td>138</td>
<td>14</td>
<td>43</td>
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<td>196</td>
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CHAPTER V

PHOTOGRAPHIC ETHNOHISTORY AND THE STUDY OF SETTLEMENT PATTERN AND MATERIAL CULTURE CHANGE:

THE VILLAGE OF KASAAN, ALASKA

In a discussion of the determinants of settlement patterns, Trigger (1968) has emphasized that the plan of a community represents not only an accommodation to factors such as subsistence technology, local climate, and the availability of natural resources; but, more importantly, the layout of a community is related to kinship and political organization, rank and wealth, and may also reflect patterns of religious organization and warfare. The study of archaeological cultures can proceed under the assumption that the material remains of the settlement represent the outcome of the interaction and integration of a number of social and environmental factors. Thus, we can expect that systematic analysis of the remains of a settlement will yield information on the social organization of the community.

The ethnohistorical photographs of Kasaan village offered an opportunity for applying Trigger's generalizations to a specific settlement during a particular period of time. Comparative data from the written and photographic ethnohistory of Klinkwan, Hwkan, Sak- wan, and Masset villages during the same time period contributed
towards a regional perspective on Kaigani and Northern Haida settlement patterns. The temporal sequences of Kasaan photographs vividly depict the changing material components of the village and were essential to the analysis of culture change among the late nineteenth century Haida.

The examination of Kasaan's settlement pattern proved methodologically important for several reasons. The determination of the patterning of architectural remains in this Haida village represents an exercise in combining ethnohistorical, ethnographic, and archaeological data and methodologies. The fact that the photographic horizon for this village (1885-1902) overlaps with Swanton's ethnographic horizon in Contributions to the Ethnology of the Haida (1909) obviated some of the uncertainties of ethnographic analogy as employed by archaeologists. Written ethnohistorical data on Kasaan village from the time period under study contributed considerable information on the social organization of the village. Thus, this study did not proceed only from the patterning of material culture to inferences about socio-political organization but effectively proceeded in both directions.

The photographs of Kasaan illustrate changes in the material culture of this village over a period of seventeen years. Though this brief span of time is archaeologically insignificant, the photos from this time period permit a glimpse of traditional Haida houses, the changes they underwent, the adoption of white style housing by some people, the decline and disappearance of totem pole raising, and the
growth of new cemetery areas. In this reconstruction of the settlement pattern of an archaeological village, historic photographs are particularly appropriate for the very reasons that exclusively archaeological material would not be. The individual photos show the village exactly as it appeared at a given moment in its history, something which no amount nor care of excavation can duplicate. Further, most of the attributes of the houses and totem poles can only be approached through the use of historic photographs. Totem poles rotted and were destroyed, and those which did not rot were cut down and sold (and consequently some were lost track of); house fronts were altered and later the windows and siding were removed to another site. Thus, much of Haida culture change depicted in the material culture is inaccessible to the archaeologist through the traditional means of discovery and reconstruction; neither is this change reported in any detail in the literature. Therefore, it would seem that photographic ethnohistory holds much potential for the study of settlement patterns.

A number of facts about Kasaan village particularly recommended it for the subject of a study of Haida settlement patterns. Kasaan escaped the direct acculturative pressures of missionization felt by the villages of both Masset and Howkan. Because of the absence of such pressures toward change one would expect traditional material culture and social organization to persist longer at Kasaan. Contrasted to the village of Klinkwan, Kasaan was a multiclan settlement and therefore offered a better opportunity for investigating the relationship between patterns of kinship and material culture.
Kasaan was considerably larger than Sakwan and was occupied for a longer period of time. The photographic coverage of Kasaan is better for the purposes of this investigation than the photographic coverage of any other Kaigani or Northern Haida village. There are a large number of photographs of Kasaan and the village site was photographed systematically at intervals convenient and appropriate to an examination of settlement pattern. With the exception of Kasaan and Sakwan, all of the other Northern and Kaigani Haida villages of concern to this study were rebuilt; white style houses were erected over the ruins of the former traditional houses. The quantity of superficial remains at Kasaan in 1971 was sufficient to locate practically every house present in the 1885 photographs; remains of seven of these houses were complete enough to measure the floor plans.

Between the years 1939-1941, Dr. Viola Garfield compiled a considerable amount of data from Kasaan informants on the totem poles from the village; we have this information for no other Kaigani or Northern Haida village, nor could informants today provide such extensive ethnohistorical data. In the summer of 1971, the U. S. Forest Service surveyed the village site of Kasaan, locating all the remaining house ruins and totem poles. The Forest Service kindly provided me with a copy of this survey map. Using my field data on house measurements and the ethnohistoric photographs I was able to correct errors in the survey map and add features which had disappeared before the summer of 1971. In conjunction with the village survey a project under the direction of Wilson Duff and Andrea Laforet of the University
of British Columbia began recording the remaining knowledge about Kasaan from the few living informants of this village. I received permission from Professor Duff to study the project's report which was loaned to me by the Alaska State Museum. Although little data on Kasaan totem poles was provided by this report, the project systematically recorded information on the ownership of housesites.

Probably more information could be recorded about Kasaan settlement pattern were informants available to me for questioning. However, I believe enough data is present to provide an analysis of Kaigani Haida settlement pattern and to demonstrate the methodology employed and the value of ethnohistorical photographs for studies of this type.

Kasaan Village: Setting and Background

Kasaan is located on the east coast of Prince of Wales Island in Skowal Arm (55°26' north latitude; 132°22' west longitude), approximately twenty-five miles from Ketchikan, Alaska (see Figure 1). The village site overlooks the arm and is oriented towards the south. The large cedar plank houses were built close to the water, several of them just above the extreme high tide mark. The cedar, spruce, and hemlock forest which surrounds the village on three sides was cleared to just beyond the backs of the houses farthest from the water and to just beyond the burial areas at the western and eastern ends of the site. When first photographed, the village site including the burial area at the extreme western end stretched for over 1000 feet and extended back from the high tide mark towards the forest a maximum of 200 feet. The area comprising the village site rose
from sea level at the beach to a height of seventy feet at a ridge that ran behind the village and on which several turn of the century graves were located.

The village site included within it two creeks, one a small intermittent stream that ran between Houses 4 and 6 (see Plate I) at the eastern end of the village; the other, a salmon spawning stream located at the western end, separated the farthest burial ground from the rest of the village. Several species of berries grow within and around the village site today; probably these were not of great importance to the Kasaan people as they were absent from their village during the months when the berries ripened. A cod bank in front of the village was an important subsistence source, and up until the village was abandoned after the turn of the present century, gardens were planted behind the houses (Laforet n.d.).

Traditionally, the people of Kasaan occupied the village until the month of April when they left for American Bay on Dall Island to hunt fur seal and later to trade with the trading ships that frequented the area in the nineteenth century. Early June was spent at Forrester Island outside of Dall Island where Alaskan Haida from all the villages gathered to collect sea gull eggs. Summer months and early fall were spent at fish camps in Karta and Nichols Bays and Cholmondeley Sound where salmon were taken from the mouths of spawning streams (see Figure 1). All evidence indicates that Kasaan, like all other Haida villages, was occupied only from late fall until early spring.
The name "Kasaan" is a Tlingit word variously translated as "pretty town" or "on top town" (Laforet n.d.). Although Kasaan was Tlingit territory prior to its occupation by the Haida, it is not known whether it was the site of an actual Tlingit village. According to the Haida account of the migration to Alaska (Swanton 1909), members of the Taslá’nas clan of the Raven moiety and the Yaidás clan of the Eagle moiety from the Queen Charlotte Islands came to occupy Kasaan. The time and duration of the migration are uncertain. Haida informants speak of it occurring in mythical times during the Flood, before the Haida had canoes (Blackman, n.d.; Laforet n.d.). Swanton (1909), on the other hand, citing the eighteenth century trader Douglas, places the time of the evacuation of North Island and the immigration to Alaska in the late eighteenth century. According to Walter Young, the chief informant for the Kasaan Cultural Heritage Project, the Kasaan people first occupied a fortified village named Chatcheeni just inside Cholmondeley Sound on the south side. Here they built a fort, cutting down the trees with stone axes (Laforet n.d.). Iron tools were introduced to the Queen Charlotte Haida in significant numbers in 1787, and Young’s statement that the Kaigani Haida did not have iron tools when at Chatcheeni, places the move to Alaska prior to the late eighteenth century maritime fur trade. Young also noted (Laforet n.d.) that the Haida occupied Kasaan by the time the first guns were introduced, which occurred in the 1790’s (Wike 1951). Kasaan was inhabited by the Haida at the time of the first smallpox epidemic which, reported by the maritime trader
Bishop, swept the area sometime before 1794 (Duff 1964). Swanton's (1909) own data also indirectly contradict the contention that the migration took place in the late eighteenth century. He notes that Kaigani clan structure was modified through contact with the Tlingit. Surely, as kinship has been demonstrated to be one of the most conservative and resistant areas of a culture (Murdock 1949; Blackman 1973), the division of four of the Kaigani clans into what Swanton (1909) calls house-groups (actually, named subclans or lineages) probably did not transpire over a single century. Further, the origin of one of these house-groups (the Dark House people of the Yaidás clan) is linked to Housesite 15 at Kasaan. Thus, the ethnohistorical data point to an occupation of Kasaan for more than 100 years before the first photographs of the village were made in 1885.

Walter Young recounted several wars with both the Tlingit and the Tsimshian following the settlement of Kasaan (Laforet n.d.). Kasaan was never fortified, but fortified islands were occupied by the Kasaan people for protection against enemies.

Information on the socio-political organization of Kasaan village comes from the cultural heritage project. Swanton (1909) compiled houselists for all the Queen Charlotte villages which included the clan affiliation and title of each houseowner, but the only Kaigani villages for which he obtained these data were Klinkwan and Sakwan. Kasaan was occupied from its inception by houseowners belonging to clans of both moieties. According to migration legends, the Taslā'nas (Raven) and the Yaidás (Eagle) clans were the original
settlers of the area. Later, a few members of the Yaḵułə̱n̓as (Raven) clan moved into Kasaan. At least one of these late arrivals, the owner of House 7, was from Klinkwan. Members of a fourth group, the Skwaładis (Raven), were present in Kasaan at one time. This clan or subclan is not mentioned by Swanton, nor could Walter Young remember any members of it; the name, however, is Tlingit.

Kasaan, in contrast to the Queen Charlotte villages, was not headed by a formally recognized town chief. There were clan chiefs, and generally one of these was recognized as the most powerful in the village, but there was no position which was accorded the authority of the Queen Charlotte Haida town chief. According to Walter Young (Laforet n.d.), Negun, the Yaidás chief, was at the time of the first smallpox epidemic the most powerful chief in Kasaan. Sanaxed, the father of Chief Skowal and chief of the Yaidás, was at a later time the most powerful chief at Kasaan. The Yaidás chieftaincy passed to Gitkun and then to his heir, Kagwanshinga. By the time the first photographs of the village were made in 1885, Kagwanshinga was chief of the Yaidás; prior to his death in 1882, Skowal had been the chief of the Taslə̱n̓as clan and was during his chieftaincy acknowledged to be the most powerful chief at Kasaan. Chief Skowal was succeeded by his next eldest brother, known by the English name of Thomas Skowal. No important Yaḵułə̱n̓as chiefs were resident in Kasaan.

Up until the first photographs of Kasaan were made, the ethno-history of the village is sketchy. A census of the village was taken in 1839 by John Work of the Hudson’s Bay Company. At that time, 249
people were reported at Kasaan. The first official census of the area was taken in 1880, and in that year only 173 people are listed for Kasaan (Petroff 1884). The 1890 census reports only forty-seven people (Porter 1893); though the population was declining, this statistic seems too low. Probably the census was taken when a number of people were absent from the village.

Just after the transfer of Alaska to the United States, an Austrian, the Marquis Charles Vincent Baronovich, met and married the daughter of Chief Skowal. Baronovich lived in a white style house at Kasaan (#5a) and he established a fish saltery and trading post at Karta Bay (see Figure 1). By 1884 the saltery was packing and shipping 1500 barrels of salmon a year (Skidmore 1885). Haida men from Kasaan were employed in the commercial fishing industry, and the Haida women cleaned and prepared the fish at Baronovich's saltery for packing and shipment. The saltery and occasionally the village of Kasaan itself were visited by mail and freight steamers of the Alaska Steamship Company. During the 1880's and 1890's wealthy tourists boarded these steamers to get a firsthand view of the coastal Indian villages in southeastern Alaska. A number of the photographs of Kasaan village come from these travellers on the Alaska steamships.

The tourists on board the Alaska Steamship Company's boats sparked the trade in both traditional Haida artifacts as well as in such non-traditional items as gold and silver bracelets bearing Haida designs. One late nineteenth century Kasaan artisan advertised
his skills on a sign at the front of his house which read, "Hyda
John, Jewellery." Skidmore (1885:40), describing this trade in arti-
facts at Kasaan in 1883, remarks, "In one house an enlightened and
non-skeptical Indian was driving sharp bargains in the sale of medi-
cine men's rattles and charms, and kindred relics of a departed
faith." With the market for Indian curios in the 1880's, 1890's,
and after the turn of the century, a number of totem poles, carved
inside houseposts, and even two entire houses from Kasaan were sold
to individuals, expositions, and museums.

Kasaan was never missionized though its people came in contact
with a number of missions. They visited Rev. William Duncan's model
Anglican community at Metlakatla; trading ships to the Hudson's Bay
Company post at Ft. Simpson brought them into contact with the Metho-
dist mission there, and through trading ventures to Sitka, the Kasaan
people were introduced to Russian Orthodoxy. Attendance at Hoonan
feasts and potlatches brought them under the influence of the Pres-
byterians.

Around the turn of the century the Kasaan Bay Mining Company
was organized, and by 1904 the village of Kasaan was abandoned and
a new village by the same name comprised entirely of white style
houses was built not far from the mine. Left to the elements, old
Kasaan was partially destroyed by a fire in 1916. In 1937 the site
was declared a U. S. National Monument.
The Location of Houses and Totem Poles

Forty-nine of the fifty-seven photographs of Kasaan were used to illustrate the plan of the village in 1885 and the changes the village underwent by 1895 and 1902 (Plates I, II, III). In 1885 Ensign Niblack took a series of fourteen photographs of Kasaan showing different portions of the village and the overlap of each with neighboring portions. Two of Niblack's photos each show the entire village site including the cemetery at the far western end. The photo coverage from 1893-95 is not as good, for the five photos from these dates were all taken at an oblique angle to the houses and some houses and poles do not appear in the photographs. Neither from these dates are there any shots of the cemetery areas at the west end. But, by comparing the 1885 photographs to post-1895 photos it was possible to isolate a number of items which were present in 1895 but not visible in the photos. C. F. Newcombe of the Provincial Museum in Victoria visited Kasaan twice in 1902, once in February and again during the summer. Both times he photographed the village. The summer of 1902 marks the last time the village was photographed before its abandonment, so the discussion of settlement pattern and culture change at Kasaan ends with these photographs.

My husband and I spent August 16-19, 1971 at Kasaan measuring house remains and totem poles and locating these features on a sketch map. Just prior to our visit the U. S. Forest Service had surveyed and prepared a map of Kasaan. While the contour intervals, shoreline, and for the most part, the locations of totem poles are accur-
ate, my field notes indicated that the houses were not accurately recorded by the survey team. In at least one instance, a house, represented only by the inside support posts at the site, was drawn as if the locations of those four features represented the overall dimensions of the house. These and similar mistakes were corrected by consulting my field notes. The maps presented in Plates I through III are corrected versions of the survey map. Using the original survey map, the 1885 photographs, and the measurements we took in the field, I attempted to locate accurately on the map all features present in 1885. Village plans for 1895 and 1902 record only changes between 1885-95, and 1895-1902 (Plates II, III), respectively. Accurate location of some of the totem poles proved difficult, and the exact relationship among the poles at the near western end of the village (a cemetery area) is uncertain.

I attempted to assign Kasaan totem poles to individual house-sites. In some cases the association of poles and houses was clear-cut; in other instances the assignment of poles to specific houses was impossible because there exist no ethnographic nor ethnohistorical data on the division of the village into house-sites. Since most of the free standing poles or giâng are close to particular houses, the poles which proved problematical are the mortuary poles or xat. The clan crests carved on the poles do not offer much of a clue in associating poles with particular houses because a houseowner might have erected on his house-site a xat for individuals of either moiety. While it was customary among the Haida for a man to raise a xat to the
The ethnographic report from the Kasaan Cultural Heritage Project provided the most important data on the clan ownership of houses, and Dr. Garfield's ethnohistorical research made possible the identification of the crests on a number of Kasaan totem poles. The house numbers referred to in the text have been taken from the Forest Service's survey map. Totem pole numbers are my own and represent an attempt to assign all poles within the confines of the housesites to individual houses. Where there is uncertainty as to the ownership of a pole, the pole is designated by a capital letter (see Plate I). A summary of house ownership, number of poles on each housesite, house dimensions and proportions are given in Table 7.

The two traditional architectural house styles at Kasaan are shown in Figure 2 (types B, B'), and the stylistics of house front facade decoration are shown for 1885 and 1895 in Figures 3 and 4. Table 8 presents, in summary form, the tabulation of occupied and unoccupied houses at Kasaan for 1885, 1895, and 1902.1

1Clues to identifying uninhabited houses included the following: planks missing from sides or front; cedarbark missing from the roof, or, in later houses, the absence of shake shingles; smokehole cover no longer intact. Boarded over windows were of no help in determining if a house were occupied. Windows were regularly boarded when occupants left for summer fish camps.
The Village in 1885

In 1885 Kasaan contained nineteen houses, sixty-one totem poles, and three flagpoles. Twenty-four of the totem poles were located in the two grave areas at the west end of the village. At this time there were no houses that conformed to Swanton's description of the pre-contact Haida house. Describing a model of a house from the central Queen Charlotte village of Skedans, Swanton (1909:123) states, "The doorway to this house, as in all the older houses, passed through the pole itself. After contact with whites, a swinging door, cut at one side of the pole, took its place." House 15 in 1885 had the type of pole described by Swanton, but the distance between the house front and the entryway through the pole suggest that the pole had been raised with a previous house. There were, however, several traditional style houses at Kasaan with rectangular doorways cut into the planking of the front wall. In 1885 there were five occupied and four abandoned traditional houses. Four of those which were inhabited fall at the eastern end of the village (1,3,4,5), while only one traditional house (14) at the western end was still occupied (See Plates IV, V, VII). Five houses at Kasaan were traditional in construction with the exception of their front facades. To the fronts of these "neo-traditional" houses had been added milled siding, occasionally scalloped trim, sometimes paint, and pane glass windows. One such house (10) was in the process of being altered (See Plate VII). The absence of any totally pre-contact style Haida house and the various degrees of alteration evident in different houses
suggest that Anglo-American style doorways were adopted at Kasaan before the villagers began altering the entire front facades of their houses.

Three white style houses (5a, 9, 16) were present in the village in 1885 (See Plates V, VII) and all belonged to individuals of the same clan (Yaidás). No totem poles can be definitely associated with these houses. Walter Young could not recall the owner of House 9, a fact which together with the relatively small size of these three houses suggest that at Kasaan the early adoption of white style housing was not an innovation that typified people of traditionally high status. While the gable end of all the traditional houses faced the water, this pattern broke down with the adoption of white style housing. Post-1890 photographs of Masset, Howkan, and Klinkwan indicate the same.

Traditional Kasaan houses in 1885 were of the architectural types previously designated B and B' (Figure 2). Type B describes all Kasaan houses but that of Chief Skowal (House 5). The post-1904 photographs of the village which show the houses as they began to fall apart and reveal their inner structures permit reconstruction of the process of house alteration. In order to convert a traditional Haida house into one with an Anglo-American style front wall, the following steps were indicated.\(^2\) The front planking which fit into

\(^2\)In no Haida village were the facades of type A houses altered (See Figure 2). The six to eight heavy roof timbers which projected beyond the front house wall as much as four and one-half feet made conversion of the front to an Anglo-American style impossible.
the grooved top and bottom plates was removed; the two outside front houseposts were cut flush with the slope of the new roofline; the old top and bottom plates and the old roofing were removed, and new rafters were erected on the old roof timbers. Two-by-fours were added to the front of the house running from the rafters to the ground. Onto this lattice of two-by-fours milled siding was nailed. This process of house alteration did not necessitate the removal of the inside houseposts nor the two heavy roof timbers which they supported. The traditional planked siding on the rear and sides of the house could be left intact, although the projecting ends of the rear upper plates had to be cut back so as not to be visible to an individual facing the house. The new roofline, heightened by the use of rafters and covered with cedar shakes, still allowed for the traditional smokehole.

House 6 at Kasaan provides a particularly interesting example of this remodelling process. In 1885 the false facade of this house, decorated with gingerbread scalloping, was flush against the giant at its center (Plate V, Figure 3). In 1895 the once again altered facade of House 6 was several feet behind the pole (Plate XII). This suggests that the facade of House 6 in 1885 did not represent the true location of the original front of the house but rather extended beyond it, exaggerating in both length and width the true size of the house. The process of altering the house front was probably avoided by merely erecting a false facade between the giant and the still intact original house front.
A method of house remodelling similar to that just described for House 6 is noted in an 1899 photograph of Klinkwan (Photo S 41,400D). Here an entire house frame with milled siding, rafters, and shake roof was in the process of being constructed over the traditional house.

Acculturation is also discernible at Kasaan in two totem poles. Both poles contain images of white men, and both relate a legendary or real event important to the owner of the pole. Pole 7A (Plate VI) according to Niblack (1890:326) relates the following story:

Many years ago the wife of a chief went out in a small fishing canoe with her two children, near the summer camp to get the pine boughs on which herring spawn. She drew her canoe up on the beach, warned the children not to go off. They disappeared. She called, they answered back with the voice of crows. The children never returned and it is said that white traders /represented by the bearded face at the top of the pole/ carried them off.

Pole 4A (Plate VI) refers to an event in Chief Skowal's own life, his baptism into the Russian Orthodox Church by missionaries at Sitka. While pole 7A appears quite traditional in the execution of its carved figures, Skowal's pole (4A) is most unconventional, particularly in the use of scrollwork, the portraitlike representation of human faces, and the non-Haida looking eagle near the base of the pole.

Skowal's second housesite, 5, with three xat and one giäng had the greatest number of poles of any housesite in the village; House 3, on the other hand, had no poles definitely associated with it. In 1885 there were three flagpoles at Kasaan; none were associated with the largest and most important houses and each belonged to a house
of a different clan. Informants at Masset and Hydaburg insisted that potlatches, which always accompanied the raising of a giâng or xat, were not involved in the raising of a flagpole. Flags of various countries obtained from trading ships were flown from the poles on special occasions. No flags appear on any of these poles in the photographs.

Houses 1 and 14, both belonging to members of the Yaidâs, had carved cornerposts associated with them; according to Walter Young, the right to erect cornerposts was an exclusive privilege only accorded people occupying certain positions. Young stated that the owner of House 14 did not have the right to erect the posts in front of his house; that privilege belonged to the owner of House 17 (Laforet n.d.).

Beyond House 19, the last house at the west end of the village, were two separate and distinct cemetery areas. One was just beyond House 19, the other 150 feet away separated from the former by a creek. Poles containing burials were found as well among the houses. Though the Haida did not distinguish terminologically between poles which actually contained the remains of the dead and those which were raised merely in a person's honor, the two are often readily distinguishable. A burial xat is short, generally bearing only one crest of the deceased which is usually located at the top of the plain cylindrical pole. Memorial xat, on the other hand, are typically taller than burial poles and normally contain more than one crest of the deceased. Within Kasaan itself there were eleven poles which can definitely be identified as burial poles.
At the far west end of Kasaan across the creek were sixteen xat containing burials. All appear to refer to people belonging to the Raven moiety. Crests of the Taslā'nas (poles R7, R8, R9, R10, R15), Yak uhla'nas (poles R11, R12, R13, R16), and possibly the Skwa'adis (poles R5, R14) can be identified on these poles. In addition, there were three completely plain xat poles. Possibly they had crest figures on them at one time. Contrasted to this "Raven cemetery" was the graveyard just east of the creek. All of the poles here, with the exception of three that cannot be positively identified and one that contains Yak uhla'nas crests, were poles raised for members of the Eagle moiety. The one pole belonging to the Raven moiety appears fairly new in the 1885 photograph (pole R1, Plate IX), which suggests that the separation of people of different moieties at death was no longer practiced. While the distinction between this cemetery area and the area to the west of it seems to be based on kinship, the relationship of the poles in these two areas to the burial xat among the housesites is not clear.

At least two burial xat were raised on housesites not too many years before the 1885 photographs were made (poles 7B and 10B, Plates VI, VII), while the poles in the cemetery area at the west end of

3 Swanton (1909) lists the following crests for the Taslā'nas: killerwhale, raven, sea lion, flicker. Yak uhla'nas crests were: grizzly bear, dogfish, killerwhale, wolf, mbon, raven. Swanton does not mention the Skwa'adis. One of Garfield's informants noted that the Thunderbird (a Raven moiety crest) belonged to a 'family' which had long since disappeared from Kasaan. Presumably this crest refers to the Skwa'adis.
Kasaan appear quite old in 1885 and no further additions are made to this cemetery. However, later photographs show that burial xat were removed from housesites which indicates that these poles were also quite old. The near west end of the Kasaan cemetery continued to be used as a burial area after 1885. Possibly all three areas (housesites and the two cemeteries) were used simultaneously for the disposal of the dead, and differences in rank dictated whether an individual's grave was at a housesite or in one of the cemetery areas at the end of the village.

The photographs also indicate that by 1885, under the influence of Christianity, a new mode of disposing of the dead had been accepted. Plate IX shows a decorative picket fence surrounding what must have been a burial in the near west end of the cemetery. There were at least two shaman's graves associated with Kasaan. During my field survey of Kasaan I located one of these graves about a quarter of a mile east of House 1 on a rocky promontory. As previously noted, shamans' bodies were taken to remote points of land or islands where they were placed in raised gravehouses. The graves were avoided because to accidentally come upon a shaman's grave meant sure death. C. F. Newcombe photographed a Kasaan shaman's grave in 1902 (BCFM. 211) and says of it only that it is located at the north end of the village. This grave, which appears quite old in the 1902 photograph, must have been behind the village. If areas so close to the housesites were to be avoided on pain of death, then the concept of village space at Kasaan could have encompassed no more than the
housesites, the gardens behind them, and the cemetery areas at the west, and later, east ends. Village space must have included only that area that was cleared of primary forest. This would be consonant with the oft-reported Haida fear of the deep forest, the avoidance of inland areas, and the total orientation of Haida houses and totem poles towards the water.

The Village in 1895

By 1895 only one house with a traditional facade was still inhabited, and even this house (3) had a small window set into the planking above the door (Plate XI). Nine neo-traditional houses (possibly only eight as the existence of House 11 in uncertain) were occupied, and the three white style houses present in 1885 were still inhabited (See Table 8). House 4 had been abandoned as had House 7. The fact that there were still thirteen occupied houses in the village suggests that the population had remained stable during the last ten years.

Five houses had been changed in some manner since 1885 (See Figure 4). Three houses (1, 5, 14) had traditional planked fronts in 1885. House 10 was in the process of being remodelled in that year, while House 6 with a false front in 1885 had by 1895 altered its original front.

Those houses with double doors in 1885 which were still occupied in 1895 (6, 14) now had a single entrance and four windows. Houses 1 and 11, owned by clarmates of house owners 6 and 14, had adopted this same type of house front. House 10, also a Yaídás house,
adopted a different pattern of facade decoration. House 5 stands out among all the rest of the houses for it displayed on its front five windows, the most of any house in the village. A similar pattern of change is noted at Klinkwan. Here house facades with only two windows in the 1890's revealed four windows after the turn of the century. Windows were intended as a display of the material wealth of the houseowner. Beynon (n.d.), discussing the alterations in a Tsimshian house at Ft. Simpson, noted that windows were added to the front of the house so "everyone could see them".

House 11, probably present by 1895 but not visible in the photographs from this time, is a documented example of a Haida house initially constructed with an Anglo-American front. The siding, the windows, and the raftered roof were part of the original construction, not alterations that took place after the house had been built in the traditional manner. At the same time traditional house fronts were being altered, others opted to build white style houses, so the span of time in which it was popular to build a traditional house with a non-traditional front such as House 11, must have been very short indeed. The photographs from the other villages suggest a time span of 1878-1895 for the construction of neo-traditional houses.

In the ten years since 1885 four large giáng have been added (IC,5E,11A,13A. See Plates XI and XII). All of these poles were associated with either the alteration of a house front or with the erection of a new house. One pole was associated with a white style house (13) built after 1899.
Although four poles were raised in Kasaan between 1885-95, six were removed (See Plate II). With the exception of one pole, these removals were all associated with house renovation. Five of the poles were definitely xat poles (5A, 5C, 5D, B, 6B), and the sixth (14D) might have been, although it appears taller than the typical memorial pole. These pole removals indicate that the poles were quite old, for a burial or memorial pole to a deceased person still remembered by those alive would generally not be removed. These removals also suggest that traditionally, old totem poles were cut down as part of a general process of renewing the material displayed on one's housesite. The poles belonging to abandoned housesites appear to have been left to deteriorate; by the 1890's, however, salvageable poles were being sold by the foot to collectors.

Post-1895 photographs of the far west end of the cemetery indicate that no poles were added or removed there. At the near western sector of the cemetery, by 1899 one mortuary pole in the shape of a bear had been added. The combination of elements surrounding this burial is interesting. The bear totem rested on top of a burial and over the bear was erected a type of gravehouse (Plate XIV). Christian elements had been combined with the tradition of raising a xat. The bear was a particularly poor example of Haida carving and suggests the decline of this art at Kasaan. Thomas Waterman in 1922 wrote about this pole, "Large bear on gravehouse: fine condition, poor carving, augur holes for nostrils, lots of paint" (Garfield n.d.). The presence of this bear totem again suggests that the strict
separation of people of opposite moieties at death was no longer observed, because this pole was in the section of the cemetery that at one time probably contained exclusively Eagle moiety burials. Other graves with little houses over them were added to this portion of the cemetery by 1899 (See Plate XIV).

During the decade 1885-95 no new graves were added to the village area itself, but at the east end of the village two mortuary poles were erected. A killerwhale's fin and two small gravehouses can be seen at the east end of the village on the ridge (Plates II, XI). A pole bearing a killerwhale's fin was located beyond House 1 at the east end (Plate XI).

Thus, between 1885-95 a considerable amount of observable change had taken place in the village. Houses had been renovated, one new house built, four giång raised, several burial poles removed. The cemetery areas continued to grow with both xat and graves being added.

The Village in 1902

In the seven years intervening between 1895 and 1902, two houses had been added at Kasaan (See Plate III). One of these was a house built by a former slave of Skowal on the site of House 2. This new house (2a, Plate XV) was built more or less according to the traditional style, but instead of planks for siding, the house was covered with irregularly shaped cedar shakes. The house was quite small and had a window above the door copied after the style of House 3 to the west of it. The second new house, 13, belonged to a woman of the Taslå'nas and had been added at the west end of the
village (Plate XVII). This house was a white style dwelling.

Two neo-traditional houses (15,19) had been abandoned and the siding and windows removed. One white style house, 9, was no longer occupied. By 1902 the number of inhabited houses in the village had dropped to eleven which would seem to be an indication of population decline (See Table 8). Probably some people had begun the move to the site of New Kasaan.

One giáng belonging to House 17 had been removed. According to Garfield (n.d.), this pole was acquired by Governor Brady of Alaska for the 1904 St. Louis Exposition. The flagpole associated with House 3 had disappeared by 1902, while a new flagpole was erected beside pole 11A (Plate III).

Additions to the village appear by this time to be almost exclusively grave markers. The far west end of the cemetery remained unchanged from 1885, while the near west end had at least three new graves and gravehouses added since 1899 (Plates III, XV). At the east end on the hill, four new burials were evident (Plate XVI). One of these would appear to be a killerwhale, for a finlike projection is visible in the photos above the tall grass. Possibly this marked the grave of Thomas Skowal who died in 1902. His marble tombstone carved in the shape of a killerwhale fin is shown in Smithsonian photo 72-540. However, the shape of the fin on the monument does not quite match the fin shown in Plate XVI. The remainder of burials on this

4Since usually a year elapsed between the time of death and the purchase of a monument, it is possible that the photograph of
ridge were represented by gravehouses.

Social Organization and the Patterning of Material Culture

Changes in the material culture of Kasaan during the period 1885-1902 have been presented and discussed. The following section details how the architectural features of Kasaan and their spatial arrangement relate to the socio-political organization of the village. The 1885 photos are used as a basis for this discussion, but where later photographs reveal important information on social organizational changes or continuities or where they augment data at hand, these later materials are brought into the discussion. In some instances, the entire time plane from 1885 to 1902 is considered.

In 1885 there were ten Yaidás housesites (1, 6, 10, 12, 14, 15, 16, 17, 18, 19), three Taslá'nas housesites (3, 4, 5), and three Yak'uhlá'nas houses (2, 7, 8). At first glance there would appear to be no segmentation of the village by clan. Yaidás houses were located at both extremes of the village and distributed throughout it. In 1885, however, the western end of the village appeared to be exclusively under the control of the Yaidás. The three Taslá'nas houses, two of which were owned by the same individual (Skowal), were all closely articulated. The Yak'uhlá'nas houses, 2 and 7, were separated by two Taslá'nas houses; Houses 7 and 8, however, were not separated by the

Thomas Skowal's monument was taken at New Kasaan. The content of photograph S 72-540 offered no clues as to location.
house of any other clan. Distances between houses measured in the field indicated that houses separated by ten feet or less belonged to members of the same clan. The reverse, however, was not true; houses spaced more than ten feet apart did not in every case belong to members of different clans.

Ethnohistorical data on the village prior to 1885 indicated several differences between Kasaan and the northern Queen Charlotte villages as represented by Masset. In Masset the house of the most important individual, the town chief, was located in the geographical center of the village. The center of Kasaan falls at either House 10 or 12, depending on whether or not the cemetery areas at the western end are included. House 10, according to Walter Young, was not even headed by a house chief. At Kasaan, a village without a town chief, the most important individual(s) did not dwell in the center of town. The ends of the village seem to have been the strategic positions. According to Walter Young (Laforet n.d.), House 17 at the west end was at one time a very important Yaidás house, and House 1 at the opposite end belonged to a high ranking man closely related to the head chief of the Yaidás. The houses of both the Yaidás chief (6) and the Taslá'nas chief (4,5) were located near the eastern extreme of the village. The temporal succession of Yaidás chiefs indicates the direction in which the focal point of the village moved through time. The first chief of the Yaidás, Negun, owned Housesite 15 at the western end of the village. Housesite 14 was later the locale of the head chieftaincy when Sanaxed held the position. Following
the inheritance of the chieftaincy by Gitkun, Housesite 6 at the eastern end of the village became the seat of the Yaidás clan and it continued to reside here when Kagwanshingás became head chief. It is interesting to note that before 1885 the house of the most powerful Raven chief in the village was located beside the house of the most important Eagle chief at the east end of the village but separated from it by a creek. Both of these housesites (4,6) are located in the back row of the village at a higher elevation than the houses nearer the beach. The association of vertical height with status in Haida culture is well documented. At potlatches those of highest status were given seats above those of lower rank; house chiefs slept on the upper platforms of their houses while those of lowest rank slept in the housepit; at death important individuals were placed on top of xat poles, while commoners rested at ground level and slaves were consigned to the bottom of the sea; the height of dance hats worn by human figures carved on totem poles indicated the rank of the pole owner, and the heights of giang themselves were a gauge of a man's status. Thus, it would seem that at Kasaan the rear row would be a desirable area in which to build a house. What would appear to be one of the largest houses in the village, House 11, was added in the rear row of the village in the 1890's. At Masset newcomers built houses behind the first row, but a number of these people were ex-slaves who built behind their former masters' dwellings. Even today the street that runs behind the main road in Masset is referred to as "second avenue". One of the reasons why the rear row in Masset
was undesirable must have been the fact that there is very little slope to the village site till one reaches the old beach ridge several hundred yards behind the first row of houses. Thus, those houses in the second row would not be at a greater elevation than those in the first row, so the advantage of vertical height was not achieved by building in the second row at Masset.

Although vertical height would seem to have been an important consideration in the selection of a housesite at Kasaan, there were houses owned by important people located in the first row (1,5,14,15, 17). Sometime before 1870 Skowal built House 5 and moved from the hill to the first row. The owner of House 7, a latecomer from Klinkwan, according to Garfield (n.d.) raised the giäng associated with his house (and thus presumably also the house) around the year 1877. These two documented examples indicate that one pattern of village expansion was toward the beach. Prior to 1885 the village may also have expanded from west to east as the shifting of the Yaidás chief­taincy would indicate. It is interesting to note that the three houses belonging to the Yak_uhlā'nas, a clan not originally present in Kasaan, are all located in the eastern half of the village.

Although the division of Kasaan into moiety or clan units is not readily observable in the ownership of housesites, this division was evident in other areas of material culture. The cemetery data, discussed previously, pointed to the fact that at one time the division between moieties was recognized in the treatment of the dead. In respect to xat erected on housesites and not in the cemetery areas,
the following relationships between clan of the deceased and clan of
the houseowner are documented. Housesite 10 has three mortuary poles
(10A, 10B, 10C) and all three poles display crests of the Eagle moiety
(undoubtedly Yaidás), the moiety of the houseowner. The xat to the
east of House 7 (pole 7B) was raised for a member of the Yak yuhlá'nas,
the same clan as the houseowner. House 15, a Yaidás house, has associ­
ated with it a burial xat (15B) with an eagle at the top. There are
other houses, however, that have xat erected on their sites for mem­
bers of clans of the opposite moiety. House 12, belonging to the
Yaidás clan, has associated with it two burial poles that likely
relate to members of the Taslá'nas clan, for one contains a flicker
(12B) and the other (12C), a sea lion. Skowal's first house has
beside it a xat with an eagle at the top; this pole was erected for
Skowal's daughter's daughter, a Yaidás (Laforet n.d.). House 6, the
house of the Yaidás chief, has at its left front edge a xat with a
killerwhale at the top, a crest of both the Taslá'nas and the Yak yuh­
lá'nas. Thus, burial poles on a housesite are not necessarily erected
for individuals of the same clan as the houseowner.

However, one could expect to find associated with each house a
mortuary pole for the same clan as the houseowner because it was
customary for a new house chief upon taking his mother's brother's
place to erect the mortuary pole for the deceased predecessor. At
Kasaan some of these xat may be located in the cemetery areas and not
among the houses.

The giäng associated with the houses also illustrate the dual
division of Haida society, in addition to the clan organization. The patterning of crests on giáng was first recognized by Swanton (1909:122). He relates, "Crests belonging to the family of the houseowner and to that of his wife were usually placed together upon the pole, although occasionally all the crests were taken from one family /clan/; but, as will be seen in what follows, there was no fixed rule for the order in which these should be arranged." I would contend that there was a preferential order for the arrangement of crests on poles, because the poles and crests comprised a visual symbol system through which the social organization of a Haida village could be communicated. As is shown below, this preferential order tends to be: owner's crest at the base of the pole, spouse's crest at the top. Of Swanton's nine examples, six follow this pattern (Swanton 1909:122-25).

Swanton (1909) divides what he calls houseposts (giáng erected against the front wall of the house) into two types: those which related a story and those which merely bore crests of the houseowner and his spouse. Sometimes the two might be combined in that the story revolved around mythical beings who were simultaneously crest figures of the owner's and his wife's clans. Often a story pole would be topped by the single crest figure of a man's wife. Such was the case with the housepole to Skowal's first house, 4. The pole, 4A (Plate VI), was erected to commemorate the baptism of Skowal and his family into the Russian Orthodox Church at Sitka. According to Keithahn (1963) and Garfield (n.d.), at the base of the pole was the figure of a white man, identified as Skowal's Austrian son-in-law. This
figure was surmounted by an eagle, the crest of Skowal's daughter, the wife of the Austrian. Her crest is also at the very top of the pole. The pole to house 7 (pole 7A) was also a story pole, and though it contained crests of the houseowner (killerwhale and grizzly bear), there were no crests belonging to the clan of the wife. Chief Skowal's twin poles (5B and 5E, Plate XII) relate segments of the Raven myth cycle. The bottom figure on these poles, identified in Barbeau (1950) as a whale, was a crest of Skowal's wife; the middle figures, ravens, referred to Skowal's clan; and, at the very top, separated from the other figures by a plain section, is an eagle, the crest of Skowal's wife.

Pole 8A, belonging to a Yak'uhlanas clansman, contained from top to bottom: grizzly bear, raven, grizzly bear, watchman, eagle. Pole 15A, like pole 8A, also has the house owner's crest at the base (eagle) and the wife's crest (grizzly bear) near the top of the pole. Pole 13A illustrates an interesting adaptation of the patterning of crests on poles to the effects of acculturation. The owner of the pole, a woman of the Taslā'nas, had married a white man from Victoria, variously described as a photographer and a cattle baron. When he died and left her several thousand dollars, she raised this pole, placing her own raven crest at the base. For her husband, not a part of the traditional Haida social system, she had carved a figure of a white man in top hat and frock coat. According to Garfield (n.d.), the scrollwork on the pole was considered appropriate for a white man.

Turning to an examination of the patterns of house front decor-
ation (Figures 3, 4), two houses were idiosyncratic. House 5, Chief Skowal's house, stood apart from all the others with five windows set into its front. House 7 was unusual with three windows asymmetrically placed in its front. Figure 3 suggests a possible link between clan affiliation and house front decoration. In 1885 the only houses in the village with double doors placed on either side of the frontal giăng were Yaidâs houses (6,12,14,18). One of these, House 6, had milled siding and trim added to the front of the house. Similar door arrangement is noted on a Yaidâs house at Sakwan village in Alaska. However, two houses at Klinkwan had a door on either side of the frontal giăng and these houses were both owned by Yak'uhlâ'nas. At Kasaan, though, a clan based explanation for the use of double doors seems reasonable. The remaining Yaidâs houses (1,10,15,19) shared the same pattern of house front decoration (Figure 4). One Yak'uhlâ'nas house front (House 8) was arranged in this same pattern. It seems significant that both Yaidâs houses with double doors in 1885, still occupied by 1895 (Houses 6,14), altered their house fronts in the same manner. A new Yaidâs house added to the village by 1899 (House 11) adopted the same house front decoration as the Yaidâs houses, 6 and 14.

While there may well be other explanations for the decoration of house fronts, the suggestion that much of this architectural patterning is clan or subclan based seems tempting for several reasons. We know from ethnographic data on the traditional Haida that stylistic aspects of material culture were definitely clan specific. Boxes, feast dishes, horn spoons, gambling sticks, ceremonial blankets
and headresses all had decorations which identified the moiety and clan of the owner. According to Swanton, prior to the introduction of totem poles, which of course also identified the clan of the owner (and spouse), house facades were painted with the crest figures of the houseowner. Thus, the attribution of patterning which emerges in the late decoration of house fronts at Kasaan to clan affiliation is, I think, reasonable.

At the same time that the display of crests identified the kinship group of an individual, it conveyed information on other aspects of Haida social organization. Swanton (1909:112) notes, "The crest system is...an heraldic device by which a man indicates his rank and position in the social scale." House facade decoration at Kasaan village in the late nineteenth century might also reflect this principle, representing a mechanism for expressing social position by the addition of double doors, windows, etc.

House Dimensions

Measurements of length (distance along the side) and width (distance across the front) were obtained in the field for seven houses at Kasaan (3,4,5,6,8,10,14). The range in house size was from 1178 square feet (House 10) to 2842 square feet (House 5). Size of house appeared to be unrelated to clan affiliation but was undoubtedly a function of rank. The most powerful chief in the village, Skowal, had by far the largest house. It is also interesting to note that his newer house, 5, is over 1000 square feet larger than his older house, 4. Ratios of width to length were calculated to see if there existed
at Kasaan any standard of proportions for traditional houses. Pro-
portions ranged from .7325 to 1.163 (See Appendix A). Discarding the
clearly aberrant latter figure, these ratios averaged .8337 with a
standard deviation of only .0121. The several house proportions from
Kasaan suggest a village specific pattern in the relationship of the
width of a Haida house to its length. These data are discussed fur-
ther in Chapter VII.

It would be instructive to explore on a region-wide basis the
relationship between house size, the presence of carved inside house-
posts, and the presence of an excavated housepit. Ample floor space,
carved houseposts, and a housepit were among the material accoutrements
of status in Haida culture. One Haida informant, discussing the
houses at Sakwan, indicated that a house beyond a critical size should
have a housepit. I asked him if a particular house had a housepit
and he replied that he did not know, but was sure that it must have
had one since it was very large. Unfortunately, two Kasaan houses
(15,18) known to have housepits were not measureable and neither were
two of the Kasaan houses with carved houseposts (17,18). The largest
house in the village, 5, did have carved houseposts—four in all— and
a comparatively deep housepit. Chief Skowal's first house (4), the
next largest in size, also had four carved houseposts, but a housepit
was not apparent. The house of the Yaídás chief, 6, also had both
housepit and carved houseposts. House 10, which was the smallest
house measured and whose owner was not even a house chief, had four
inside houseposts carved in the shape of eagle legs and contained a
shallow housepit. House 8 which was about the same size as House 10 (only six square feet larger) had neither a housepit nor carved houseposts. House 3 (larger than House 10 and smaller than 6) and House 14 (larger than House 6) had neither housepit nor carved inside houseposts. The concept of a "large house" is explored in Chapter VII in relationship to the photogrammetric calculations of Chief Weah's house, reputedly the largest Haida house built.

Kasaan: The Implications of Change

The first section of this chapter delineated the changes that took place within the Haida village of Kasaan over a period of seventeen years. An attempt was made in the following section to link these changes to the socio-political organization of the village and on the basis of ethnohistorical data project backward in time to discern the direction of some of these changes. The photographs, ethnohistorical, ethnographic, and archaeological data indicate that the settlement pattern for this village differed from that of the northern Queen Charlotte villages. The absence of formal authority vested in a town chieftainship is reflected in the lack of centrality in the location of housesites of the highest ranking individuals.

It was suggested that Kasaan from the beginning of its occupation expanded eastward and southward towards the water. In 1885 the locus of innovation appears to be in the western half of the village, for the still inhabited traditional style houses (1,3,4,5) are clustered at the eastern end. Burial areas seem to have shifted over time. Throughout the period the village was photographed, the
far western sector of the cemetery remained unchanged and no burials were added within the housesites themselves, while graves were added to both the near western end of the village and to the eastern end.

The photographic material suggests something of the differential rate of change in different types of material culture. No completely traditional houses are erected during the time the village was photographed, though traditional totem poles were raised. Thus, both giáng and xat continued to function in the culture after the practice of building traditional style houses disappeared.

In respect to houses, the adoption of selected items of Anglo-American material culture, integrated into the traditional social structure, functioned to express the individuality, the status, and possibly the clan affiliation of the houseowner. I refer here to the decoration of traditional house facades by the addition of siding, windows, and trim. The most important effect of this alteration of house fronts is that it allowed the people to participate in material culture innovation without effecting changes in the traditional social structure. The photographs clearly show that each house with an altered front still possessed the traditional central fireplace as evidenced by the presence of a smokehole cover. The inside photographs of Chief Skowal's house, 5, (Plate XXXI) demonstrate that while the outside front of the house appeared materially acculturated, the house interior was unaltered; thus, the patterning of activities and the distribution of people within the house remained unchanged.

Some compromises in totem pole carving were also noted at
Kasaan. The representation of non-traditional figures on poles began before 1885 and was noted again in 1895 with the erection of pole 13A. The process of raising a totem pole and the accompanying potlatch were doubtless little affected by these internal stylistic changes in the poles.

Combinations of differing cultural elements were noted in respect to treatment of the dead. Xat continued to be raised at the same time that both burial was being practiced and headstones were replacing the poles. In at least one instance, the xat was combined with the practice of actual burial beneath the ground, and a gravehouse was erected over the pole. Smithsonian photo 72-540 shows another example of the combination of introduced elements with traditional ones. Thomas Skowal, the successor to Chief Skowal was recognized at his death in 1902 by a marble monument carved in the shape of a killer-whale fin.

The photographs, beginning with the Niblack series in 1885, show Kasaan village in the process of change. The photographic coverage begins at a time when the village was viable and heterogeneous in its display of old and new material culture. In 1885 there were still traditional houses (albeit with rectangular doorways), totem pole raising was still practiced, traditional means of disposing of the dead were evident though the influence of Christianity was also obvious. By 1902 the only area of the village where growth is evident is in the cemetery. While the photographic coverage of Kasaan is temporally brief, it is adequate to illustrate the traditional
settlement pattern of Kasaan and of sufficient duration to document the changes that took place in the village up to the time of the abandonment of traditional houses and the cessation of totem pole raising.

The study of material culture change and settlement pattern at Kasaan through the media of ethnography, written ethnohistory, archeology, and most importantly, photographic ethnohistory, illustrates how the structure of a village might be analyzed when there is adequate early photographic coverage of it and when some remains of its features can yet be found. The two chapters which follow provide approaches to the study of the single ethnohistorical house through photographic media. Chapter VII, complementing the village level analysis in this chapter, views culture change at the level of the individual household.
# TABLE 7

**SUMMARY OF DATA BY HOUSE**

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<td>Flicker House</td>
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<td>Sub-Total</td>
<td>1</td>
<td>8</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>TOTAL</td>
<td>11</td>
<td></td>
<td></td>
<td>10</td>
</tr>
</tbody>
</table>

TABLE 8 - Continued
FIGURE 3
HOUSE FAÇADE DECORATION AT KASAAN, 1885

(1) Ya:dás
(3) Taslá'nas

(4) Taslá'nas

(5) Taslá'nas

(6) Ya:dás
(18) Ya:dás

(7) Yak_yuhlá'nas

(8) Yak_yuhlá'nas
(15) Ya:dás
(19) Ya:dás

(12) Ya:dás
(14) Ya:dás

(16) Ya:dás
FIGURE 4
HOUSE FAÇADE DECORATION AT KASAAN, 1895

(3) Taslá'nas

(1) Ya:dás
(8) Yak_yhtá'nas
(10) Ya:dás
(15) Ya:dás
(19) Ya:dás

(6) Ya:dás
(11) Ya:dás
(14) Ya:dás

(5) Taslá'nas
KASAAN, CHANGES
1885-1895

- HOUSE LOCATION APPROXIMATE
- GRAVE POST LOCATION APPROXIMATE
- GRAVE
- TOTEM POLE LOCATION APPROXIMATE
- TOTEM POLE REMOVED

SCALE
0 feet  |  50 feet  |  100 feet
CHAPTER VI

THE PHOTOGRAMMETRIC STUDY OF A NORTHERN HAIDA HOUSE

In the previous chapter analysis of forty-nine photographs of a Kaigani Haida village illustrated the importance of early photographs in the study of settlement pattern and material culture change. In this chapter five photographs of a single Haida dwelling have been isolated for study. The approach to these five photographs and the type of data sought from them contrast with the focus of Chapter V. Here photogrammetric techniques have been applied to photographs of Chief Weah's house at Masset, Queen Charlotte Islands in order to determine the dimensions of the house and its associated totem poles and to illustrate the applications of photogrammetry to photographic ethnohistory. The metric information which results from this analysis cannot be replicated by any other methodology; the detail of information provided by photogrammetric analysis could not be gained from archaeological investigation of this housesite today; and, these data have been recorded in neither the ethnology nor archaeology of any other Northwest Coast culture. The results of the analysis point the way for future comparative photogrammetric studies of Northwest Coast housesites and even entire villages.

Photogrammetry is a science for determining true distances in
object space from dimensions recorded in the image planes\(^1\) of photographs. Close range photogrammetry, as opposed to photogrammetry employing aerial photographs, was used in the study of Chief Weah's house. In this particular case study the photogrammetric methods involved primarily the application of reverse perspective drawing to single photographs. An applied science, photogrammetry has for many years been a means of arriving at the exact reconstruction of important buildings and monuments which have been partially destroyed (See, for instance, Thompson 1962). Generally, photogrammetry is undertaken only when there is survey control on the ground; that is, only when datum points are present in both object space and in the photographic image. The present application of photogrammetry represents an exception to this generalization. In this chapter photogrammetry is used to construct the plan\(^2\) and facades of a building which essentially survives only as a photographic image. Although the height of a portion of a housepit wall was used to determine the scale of the plan and was thus a datum point, this point of scale could not be located exactly in the photograph.

\(^1\)Object space refers to distances on the ground, distances which are true. When object space is represented in a photograph, distances are no longer true to scale but are in perspective. The image plane refers to the representation of objects in a vertical plane of perspective.

\(^2\)In architectural drawing a plan is the representation of an object or objects in true proportions without perspective. A plan shows only horizontal distances.
Edifices from Euro-American culture have been the chief subjects of photogrammetric studies. Such structures, generally the products of careful architectural planning, have the features of right angle corners, plane surfaces, and horizontal and vertical lines in structural members, features upon which reverse perspective and single picture photogrammetry depend. Photogrammetric methods have never, to my knowledge, been applied to the vanished architecture of a non-Western, traditional culture. Thus, this study constitutes a departure from both standard photogrammetric conditions and subject matter, but in so doing, it tests the limits of photogrammetric techniques.

Because the structures submitted to photogrammetric analysis here are traditionally Haida and are not the products of modern Euro-American culture, several assumptions about Haida architecture had to be made prior to photogrammetric analysis. These assumptions were: 1. Haida houses are basically orthogonal buildings; 2. The house walls, housepit retaining walls, and outside houseposts were constructed with vertical surfaces; and, 3. The housepit floor, the platforms surrounding the housepit, and the roof timbers are nearly horizontal. These assumptions seem reasonable due to the limitations of plasticity inherent in the heavy timber construction used by the Haida. Both the ethno-historical literature and my survey of Haida village sites support this position. Early observers of the Haida perceived Haida houses as regular structures, for they consistently describe these dwellings as either square or rectangular. For example, both James G. Swan (n.d.b) and Newton Chittenden (1884) state that Chief Weah's house was square.
In July of 1971 my husband and I mapped the Kaigani village of Sakwan using a plane table and open sight alidade. The remains of Sakwan house foundations indicated that the houses were rectangular in plan.

It was also necessary before beginning the analysis to make two basic assumptions about the camera which took each photograph. These assumptions were: 1. The camera axis was horizontal; and, 2. The film plane was vertical or nearly vertical. These assumptions figured importantly in the location of the camera station for each photograph.

By combining image planes of photographs so that object space (Chief Weah's house) was viewed from more than one camera position, it was possible to determine house dimensions with reasonable accuracy. When image planes are combined a given point can be located from more than one camera position, and each determination of the locus of the point serves as a check on the other. In the case that a combination of image planes produced discrepancies in the location of points and consequently in house dimensions, an adjustment of one of the original assumptions about Haida architecture or the cameras was necessary. The specific adjustments that had to be made and the procedures for making them are discussed in detail in the pages that follow.

Error resulting from other sources was not so easy to correct. Although there are twelve photographs of Chief Weah's house, only one glass plate negative survives; all of the views subjected to photogrammetry...
metric analysis are second or third generation paper prints. Each time a copy negative intervenes between the original negative and the final print, the potential for error is present. If, for example, the film plane of the copy camera and the image plane of the print being copied are not perfectly parallel, there will be distortion in the resulting copy negative and in all prints made from this negative. Random error results from the differential shrinkage and expansion of all photographic papers. Much more prone to distortion than glass, paper readily absorbs and loses moisture, causing expansion and shrinkage and consequently deformations and shifts in image points. Unfortunately, this distortion of the paper is not uniform throughout the print; part of a print may expand while another portion may shrink. While random error attributable to shrinkage of photographic paper cannot be isolated, discrepancies in the resulting dimensions of the structure can be adjusted mathematically and a statement of standard error made.

Despite the limitations of the photographic material available for this study, there are a number of features which particularly recommend the photographs of Chief Weah's house to photogrammetric analysis. The exterior of the house was photographed from several different angles, and in this series of photos the complete front facade and length of the house are represented. In addition, one photograph presents, in true proportions, the front of the house parallel to the image plane of the photograph. Each of the three totem poles directly associated with the house appears in two photographs which enabled
me to locate them in space and determine their individual heights. Two views of the inside of the house allowed the determination of house dimensions and the construction of a floor plan to scale. These interior photographs also provided a means for cross-checking the dimensions of the house obtained from analysis of the photographs of its exterior.

The House and Housesite

The Haida house subjected to photogrammetric analysis is discussed in detail in Chapter VII, so here only the background information pertinent to the photogrammetric study is presented. Called Neiwyins, "Monster House", because of its "enormous size", the house was built around the year 1840 for Weah, the new town chief of the village of Masset. Alleged to be the largest Haida house built in recent times (Harrison 1925), Neiwyins stood until 1901 or 1902 when the structure was levelled. The housepit and surrounding platforms, however, were left intact; a small white man's style house was built toward the front of the old house foundation. By 1930 this house had been torn down and a second house had been built on pilings in the center of the housepit. This second house was torn down in 1962 and a new house built over the housepit of Neiwyins. The four upper housepit retaining walls were removed before the third house was constructed and the depression marking the upper platform was filled in. The rear lower housepit wall, however, was left intact and twenty-seven feet of its length are still visible in the crawl space beneath the third house. I excavated this wall in August of 1971 and found it to be forty-six inches in
depth from its top to the housepit floor. This measurement became the scale factor used in the determination of the dimensions of Neiwns' interior.

The three totem poles associated with the house were cut and burned when the house was razed. Only one of the ten totem poles belonging to the housesite survived. This pole, the inside housepole, is in the collection of the National Museum of Man in Ottawa. Unfortunately, the inside housepole does not show in any of the photographs of Neiwns.

Photogrammetric Analysis of the House Interior

The interior of Neiwns was photographed at two different points in time. In the late spring of 1884 Richard Maynard of Victoria took a stereo photograph of the inside of the house, and in 1897 E. P. Allen from the Field Museum in Chicago photographed the house interior from almost the same camera position as the earlier Maynard photo. The 1884 photograph was printed on stereoptican cards, and Maynard also enlarged and printed each half of the stereo as a separate view. It was customary when printing stereo plates to mask each half of the plate one-fourth inch at the sides and bottom and to round the top of the print (Walter Johnson, personal communication). Maynard apparently followed this procedure as each half of the stereo print shows less of the house than either enlargement. The enlargements therefore have been presumed to represent the full frame of the glass plate negative.

Primarily graphic methods were employed in the photogrammetric
analysis of Chief Weah's house. Vanishing points of essentially parallel horizontal lines were used to determine the location of camera stations and camera axes for each photograph. Once these points and axes were known, a picture plane or image plane intersecting the image at the chosen point of scale was constructed. This picture plane or image plane was also drawn in plan above the image and parallel to the horizon line of the image (See Plate XIX). Points in the image were projected perpendicularly to this picture plane and lines of sight from the camera stations in plan to these points in the image plane located features of the house in plan and to scale. This procedure is explained and illustrated in step by step detail for each photograph. The dimensions resulting from the analyses of the interior photographs are presented in Table 9.

In the photographs of the interior of Neiwns, lines (planes) which were presumed parallel and horizontal in object space, converged

4 Lines which in object space are parallel and horizontal, appear in perspective to converge to a point. This point is referred to as the vanishing point. The camera station refers here to the location of the midpoint of the lens of the camera relative to the image.

5 The horizon is a plane which bisects the center of the camera lens and represents the neutral line of perspective in the photograph. All horizontal lines below the horizon converge upwards to it, all horizontal lines above it converge downwards to it.

6 A line of sight is a straight line or ray from a point registered in the negative to its location in object space. In plan this is represented by a line from S, the camera station, to the location of the point in plan.
to the right and left of the image. These points of convergence, the right and left vanishing points, expressed as $V_r$ and $V_l$, were determined by extending horizontal planes shown in the image until they intersected. The horizon was determined by drawing a line between the right and left vanishing points (Figure 5). Vertical lines in both images of Nənəwən's interior remained vertical and did not converge.

A line which in perspective vanishes to a given vanishing point, will, in plan, be parallel to a line from the camera station to that vanishing point. Thus, if the Haida house walls meet at right angles, it follows that the lines from each vanishing point to the camera station will meet at a right angle. All possible locations of the vertex of this angle lie on a semi-circle whose diameter equals the distance between the right and left vanishing points. Figure 5 illustrates these principles.

Using both halves of the Maynard stereo pair of the interior of Nənəwən, it was theoretically possible to locate precisely the camera station for each member of the pair (i.e., the center of each lens on the stereo camera). The point of scale was chosen in each photograph, this point being the location along the lower rear housepit wall where the distance from the top of the wall to the floor equaled forty-six inches. As it was impossible to coordinate the true intersection of this point (actually a plane) in object space with its representation in the image, a point on the lower rear wall easily identifiable in both halves of the stereo photograph was chosen. A vertical line, representing the intersection of the image plane with the wall, was
constructed through this point of scale, and one half of the stereo pair was placed above the other with these verticals aligned (Figure 6). The resulting right-left displacement of the center and edges of the photographs equalled the displacement of the two lenses of the stereo camera to the scale of the vertical line in the photograph (12 inches = 13.8/60). Vanishing points and horizon lines were constructed and the vanishing points of the upper image were projected perpendicularly to the horizon of the lower image (Figure 6). The distances between the right vanishing points of the two photographs ($V_r - V_{r'}$) and between the left vanishing points ($V_l - V_{l'}$) also represent the right-left displacement of the two photographs to the scale noted above. Circles with diameters equal to the distance between the right and left vanishing points of each photo were constructed (Figure 6). The intersection of these circles bisected the distance separating the centers of the two camera lenses. This distance, $S-S'$, was equal to $V_r - V_{r'}$ and $V_l - V_{l'}$. When these equivalences were known each camera station could be located accordingly.

Unfortunately, the right or left displacement of each half of the stereo to the scale 12 inches = 13.8/60 was extremely small and the probability of random distortion in the prints great enough that accurate results could not be obtained. Were glass diapositives, contact printed from the original glass plates, available, this exercise could have been successfully performed. Nonetheless, even this unsuccessful attempt contributed important information about the proper positioning of the vanishing points of each member of the
It became apparent that the left vanishing point could not be located too far to the left or the line along which S, the camera station, lies and which bisects the original image, would be too far to the left, indicating that the photo had been extensively cropped on the lefthand side. This was an important discovery, because later in the analysis it became apparent that the housepit floor was uneven, and as a result, some parallel planes were tilted and vanished to points above or below the horizon. Thus it was necessary to choose among several possible vanishing points at the left of the interior photograph.

Since enlargements of each stereo photo showed more of the house interior at the sides and bottom than the cropped stereo views, it was assumed that each enlargement of the stereo plate represented the full negative frame. If this assumption were true, then a line bisecting the image would indicate the camera axis and, consequently, along this axis would be located the camera station. Thus, the image of Plate XIX, the enlargement of the right half of the stereo pair, was bisected; the point at which lines from \( V_r \) and \( V_l \) intersected the bisector at a right angle marked the location of the camera station.

The picture or image plane, a vertical plane intersecting the image at the point of scale, is shown in relationship to the image in Plate XIX. This plane is represented in plan above and parallel to its

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7Photo BCPM A16434, the left half of the stereo pair, was later determined to be distorted, probably as a result of the copying process. This image could not be used to cross-check results obtained from analysis of the other half of the pair, Photo AMNH 24482 (Plate XIX)
horizontal intersection in the image. The vanishing points of the image are located on the image plane of the plan by projecting them perpendicularly from the horizon to their intersection with the picture plane of the plan. Next, the camera station is located in plan. The camera axis line of the image is extended to its perpendicular intersection with the picture plane of the plan; the point at which lines from $V_r(p)$ and $V_1(p)$ intersect the axis line at a 90° angle marks the location of the camera station in plan. All of the above procedures are shown in Figure 7.

To begin the construction of the floor plan of Neiwunys, the point of scale, $P$, is projected perpendicularly to the image plane of the plan (Figure 7). The point, $C$, representing the corner formed by the intersection of the lower housepit retaining walls, is projected perpendicularly to the image plane of the plan. In plan, this corner lies along a line of sight running through $S(p)$ and $C(p)$. Following the principle illustrated in Figure 5 that a line which in perspective vanishes to point $V_r$ will in plan be parallel to the line $V_r(p)-S(p)$, a line representing the lower housepit retaining wall is constructed through point $P(p)$, intersecting the line $S(p)-C(p)$, and parallel to $S(p)-V_r(p)$ (Figure 7). This procedure is repeated for the location of the lower south housepit wall, which, in plan is parallel to the line $S(p)-V_1(p)$. Theoretically, in plan the line running through the

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8Subscript $p$ is used to distinguish points in plan from points in the image. Thus, $V_r(p)$ refers to the right vanishing point of the plan drawing.
already determined corner and point $P'(p)$ (the intersection of the image plane with the south lower housepit wall) should be parallel to $S(p) - V_1(p)$. In actuality, however, the line from the corner, $C(p)$, through $P'(p)$ was not parallel to $S(p) - V_1(p)$ (i.e. the housepit walls in plan did not meet at an exact right angle). This discrepancy would result from several different causes: 1. The floor was not perfectly parallel, resulting in the incorrect location of $P'$; 2. The left vanishing point was incorrectly located, causing the line $V_1(p) - S(p)$ to be incorrectly drawn; 3. The housepit walls did not meet at a right angle. The location in plan of additional points in the house, particularly the fireplace and central axes of the house indicated that the left vanishing point was accurately located and that $P'$ was incorrectly located due to the unevenness of the housepit floor. Thus, the line for the lower south housepit wall was, in plan, drawn through the corner, $C(p)$, and parallel to the line $S(p) - V_1(p)$.

The corner formed by the intersection of the upper housepit retaining walls was located in plan following the procedure just described for the lower walls.

A small portion of the lower north housepit wall appears in Plate XIX (See also Plate XXVII). The line representing the edge of this wall was extended to its intersection with the extension of the lower rear housepit wall (Figure 8). The point of intersection, $L$, was projected to the image plane; the intersection of the line of sight, $S(p) - L(p)$ with the lower rear wall in plan marked the left or north edge of the wall. The longitudinal central axis of the house was located
in plan by bisecting the lower rear wall in plan. The axis was constructed parallel to the north and south housepit walls (i.e. parallel to the line $S_{(p)} - V_{r(p)}$). A very small portion of the lower front housepit wall also shows in the 1884 photograph (Plates XIX, XXVII).

This wall and the remaining central axis were located in plan according to the procedures described above.

Figure 9 details the location of the fireplace in plan. Lines $AB$ and $CD$ representing the front and rear sides of the fireplace were extended to their intersection with the picture plane in the image. These points of intersection, $X$ and $Z$, were projected to the picture or image plane of the plan. In the image it was determined that the sides of the fireplace $AB$ and $CD$ vanished to $V_{r(p)}$. In plan, lines through points $X_{(p)}$ and $Z_{(p)}$ were constructed parallel to the line $S_{(p)} - V_{r(p)}$.

Next, image points $A, B, C, D$ were projected to the image plane of the plan, lines of sight $S_{(p)} - A_{(p)}, S_{(p)} - B_{(p)}, S_{(p)} - C_{(p)}, S_{(p)} - D_{(p)}$ located these points in the plan. The connection of points $A_{(p)} C_{(p)}$ and $B_{(p)} D_{(p)}$ completed the construction of the fireplace (figure 9).

This procedure was repeated to determine the outside perimeter of the fireplace.

The location in plan of the drying racks which hang above the fireplace (Plates XIX, XXVII) was particularly important for the distance separating them represents a datum which could be transferred

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9 Points projected from the image to the image plane of the plan or from the plan to the image plane of the image are extended perpendicularly to the image plane.
to the plan of the house exterior. The two racks are suspended from
the roof, one on either side of the smokehole. From the photographs
of Neiwans' exterior, it is apparent that the smokehole was constructed
between the two innermost roof timbers. Thus, the distance between the
drying racks should be equal to the distance between the inner sides
of the two central roof timbers. Figures 10 and 11 illustrate the pro-
cedure for locating the drying racks in plan.

A line from \( V_1 \) through point \( E \) (the point at which one chain
attaches to one rack) to its intersection, \( F \), with the opposite chain
was drawn. This operation insured that points \( E \) and \( F \) were at equal
heights. This procedure was repeated in locating point \( H \). Next, the
diagonals of the beams in the image, \( FG \) and \( EH \), were extended to their
intersection with the horizon (Figure 10). These points on the horizon
represented the vanishing points of the diagonals of the drying racks.
The midpoint between the racks, point \( I \), was indicated by the inter-
section of the diagonals \( FG \) and \( EH \).

In order to locate the drying racks in plan, it was necessary to
assume that the midpoint between them, point \( I \), lay on the longitudinal
central axis of the house. This seems a reasonable assumption since
the smokehole and the roof timbers upon which it rests appear, in the
photographs of Neiwans' exterior, to be centered on the house roof.
Point \( I \) was projected to the image plane of the plan (Figure 11). The
intersection of the line of sight \( S(p) \) with the longitudinal cen-
tral axis in plan indicated the location of the midpoint of the drying
racks in plan. Diagonal \( F(p)C(p) \) was constructed through \( I(p) \) parallel
to line $S_p^{(p)G(p)}$. This is in accordance with the principle that a line in plan will be parallel to a line drawn from the camera station to the vanishing point of that line. The other diagonal, $E_p^{(p)H(p)}$, was constructed through $I_p^{(p)}$ and parallel to $S_p^{(p)H(p)}$. These constructions are shown in Figure 11.

To locate in plan the points at which the chains are attached to the drying racks, image points $E,F,G,H$ were projected to the image plane of the plan (Figure 11). Lines of sight $S_p^{(p)E(p)}$, $S_p^{(p)F(p)}$, $S_p^{(p)G(p)}$, $S_p^{(p)H(p)}$ located these points on the diagonals in plan. The distance between the two racks was measured by a line drawn parallel to $S_p^{(p)I(p)}$. This distance became the scale factor for determining the dimensions of the exterior of the house.

To check the several dimensions obtained from analysis of photo AMNH 24482 (Plates XIX, XXVII) and to obtain the much needed information on the width of the upper platforms, I turned to photo FMNH 846 (Plate XX). This photograph of the interior of Neiwiwns was taken in 1897 after the house had been abandoned. The photo shows nearly the same portion of the house as the earlier Maynard photograph, and like the earlier photo of Neiwiwns, Plate XX was taken from a location on the upper platform.

In the center of the image of Plate XX is a round spot of light which appears to be lens flare. Light falls off rapidly on the lower corners of the image in the circular shape of the lens. Because the lens flare is centered in the image and because the unsightly dark areas around the perimeter of the image were not cropped when the
plate was printed, it was assumed that this photograph represented the full frame of the negative plate. Accordingly, the image was bisected by a line representing the camera axis. Vanishing points were located and the horizon and camera station for this photograph were determined according to the procedures previously outlined. I attempted to locate the point of scale and the image plane at the same point along the housepit wall in this image as in the other photograph of the house interior. The scale of Plate XX was determined at this point to be 12 inches = $13.6/60$. The image plane was constructed in the image and then above it following the method described for Plate XIX. The right rear corner of the house, not discernable in Plate XIX, was visible in Plate XX. The location of this corner was crucial because it represents the intersection of the side and rear outside walls of the house.

The door in the rear wall of the house which appears only in Plate XX was located in plan (Figure 12). Image points A and B were projected to the image plane of the plan, and the intersection of lines of sight $S(p)^A(p)$ and $S(p)^B(p)$ with the rear wall of the house in plan located the doorway.

Next, the chamber constructed against the back wall of the house was drawn in plan. This procedure is shown in Figure 13. Point C, the north rear corner of the chamber, was located on the rear wall of the house according to the procedure described above for the determination of the rear doorway. The front of the chamber which projects out from the rear wall of the house was found as follows. The front corner of the chamber, D, was projected from the image to the image plane of the
plan. This point in plan lay somewhere along the line of sight $S_{(p)} - D_{(p)}$ (Figure 13). Assuming that the side wall of the chamber intersected the rear wall of the house at a right angle (See Plate XX), a line from point C perpendicular to the rear wall of the house was constructed. The intersection of this line with the line $S_{(p)} - D_{(p)}$ located the point $D_{(p)}$, the front corner of the chamber. The other front corner of the chamber was located in the same manner. A line projected to the rear wall of the house from this second corner and perpendicular to it located the remaining corner of the chamber.

In both Plates XIX and XX the heights of several important objects were determined. All of these objects were positioned in the house so that they presented vertical planes presumed parallel to the housepit walls. Phrased differently, lines representing the top and bottom planes of these objects vanished to the right or left vanishing points of the image. Lines of sight to the appropriate vanishing points were projected along the bottom and top planes of these objects in the image to their intersection with the image plane of the photograph. At this intersection, the vertical height of the object was true to scale. The determination of the height of the rear chamber is illustrated in Figure 14 as an example of this process. Other dimensions determined by this method were: the height of the rear door to the house; the height of the door to the rear chamber; the height of the chamber and its doorway on the south upper platform; the height of the drying racks; the height of the rear and side railings; the height of the south wall of the house; and, the height of the rear upper plates in the right corner.
Dimensions of house features determined from photogrammetric analysis of Plates XIX and XX are reported in Table 9. Measurements are given to the nearest hundredths of feet, and the percentage of deviation between measurements obtained from both images is indicated. Discussion of these dimensions follows the presentation of the methodology.

Photogrammetric Analysis of the House Exterior

Three photographs of the exterior of Neliwans were studied to determine the overall dimensions of the house, the projection and spacing of the large roof timbers, and the heights of the three totem poles directly associated with the house. The length and width dimensions of Neliwans obtained from these exterior photographs were compared with the projected length and width measurements derived from study of the house interior. These comparative data are presented in Table 12. Table 10 gives the dimensions of the house exterior, and Table 11, the dimensions of the three totem poles.

Photo AMNH 334106 (Plate XXI), made in 1881 by Edward Dossetter of Victoria, shows almost the entire front facade of Neliwans. In this photograph, horizontal parallel planes in object space remain horizontal and parallel in the image; they do not vanish. When this photograph was made the film plane of the camera must have been parallel to the front of the house, and as a consequence, all the distances in the plane formed by the front wall of the house are in true proportions. Thus, Plate XXI presents an orthographic elevation of the front
Photograph FMNH 845 (Plate XXII), taken by the same photographer and at the same time as Plate XX, shows the front of Neiwinns and the entire length of the south side of the house. This photograph also shows the full height of all three totem poles. Photo S 38,582F (Plate XXIII), taken by Richard Maynard in the summer of 1888, shows the front of Neiwinns, all three totem poles, and a portion of the north side of the house. The smokehole, not apparent in either Plate XXI or Plate XXII, is clearly evident in Plate XXIII.

Plate XXII was obviously cropped by the photographer for the print is vignetted to focus on Neiwinns. Because this photo was cropped, one cannot be certain that the camera axis bisected the image represented in this print. It was possible, however, to determine the location of the camera axis in the following manner (See Figure 15). A line in plan drawing representing the front of the house was constructed to intersect with the above mentioned facade plane. The point of scale or point where the two planes intersected was arbitrarily selected in Plate XXII. This point of scale was located on the line represented by the left edge of the doorway to the house. A point representing the left edge of the doorway on the facade plane was intersected with the point representing the same on the image plane of Plate XXII. To simplify the operations the facade plane was constructed to the scale of Plate XXII as measured at the left edge of the door. This scale was .64 the scale of Plate XXI; thus all dimensions taken from Plate XXI had to be multiplied by this scale factor. Features of the house
front visible in both photographs were measured in the image and on the facade plane from the point of scale and marked off along both image and facade planes, respectively. The intersection of lines of sight connecting image points with their corresponding points in the facade plane (Figure 15), marks the location of S, the camera station for Plate XXII. The unknown factor in the operation (in addition to the location of S) was the angle subtended by the image and facade planes. Right and left vanishing points of the image plane had been determined by the method described for Neïmuns' interior. As noted in Figure 5, the camera station for an image lies somewhere on a semi-circle with the distance between the vanishing points of the image as the diameter. In the case of Plate XXII the location of S was a trial and error process. If the lines of sight, instead of converging to a point on the semicircle, converged on either side of the circle, then the angle between the image and facade planes was incorrect. The operations were repeated by varying this angle until the camera station fell on the semicircle.

Once the camera station had been located for Plate XXII, it was possible to locate the roof timbers in plan, calculate their diameters, and determine the distance each timber projected beyond the house wall. Figure 16 illustrates how these data were obtained.

The point of intersection of each timber with the house front was measured in the image from the point of scale. This distance was then noted on the image plane. A line of sight was drawn from S(p) to the point on the image plane. The intersection of this line with the
facade plane indicated the location of the point in plan. It was assumed that each timber intersected the house facade at a right angle, so each timber was so constructed in plan. The length of each timber was determined by measuring the distance from the projecting end in the image to the point of scale, marking this distance on the image plane, and constructing a line of sight from \( S(P) \) through this point to its intersection with the line representing the roof timber in plan (See Figure 16).

The distance \( AB \) between the two innermost roof timbers (Figure 16) was assumed to equal the distance between the two drying racks shown in the photo of Neiwyns' interior. The rationale for this assumption was discussed on page 219. The dimension \( AB \), determined from analysis of the interior photograph, became the scale factor for determining the dimensions of the exterior of the house.

In order to determine the width of Neiwyns (the distance between the front outside houseposts), the length of the house, and the locations and heights of the three totem poles, it was necessary to combine the image plane of Plate XXII with that of Plate XXIII. This combination of image planes is shown in Figure 17.

Each image plane is shown in its exact relationship to the facade of Neiwyns. To accomplish this, it was essential that the facade plane and each image plane be to the same scale at the points of intersection. Thus, the first step was to determine at which point on the facade of Neiwyns in Plate XXIII the scale was equal to that at the left edge of the doorway of the house in Plate XXII. Once this
point was determined, a line representing the facade plane (the plane of the house front in Plate XXI times the scale factor of .64) was intersected with this point of scale.

The point of scale in Plate XXIII, a conspicuous crack on the front facade, was located in Plate XXII, marked on the image plane of Plate XXII, and by a line of sight from S, was located on the facade plane. At this point, the image plane of Plate XXIII was intersected (Figure 17).

The inside edge of each of the front houseposts was located as follows (Figure 18). This edge was measured in each image from the point of scale and marked on the image plane. A line of sight from each camera station through the respective image point was drawn. As the outside houseposts projected forward of the house wall, they could not be located on the facade plane. Rather, their location was marked by the intersection of lines of sight from the two camera stations (Figure 18). A perpendicular line from this point back to the house facade indicated the point at which the housepost intersected the front wall, and the distance between them marked the width of the front of the house. The ends of the upper plates which projected beyond the width of the house itself were located on the facade plane. These points could be determined from a single camera position, but by using lines of sight to image points from both camera stations it was possible to cross-check results.

The length of the south wall of the house was determined as follows. In accordance with the assumption that Haida houses were ortho-
gonał, a line perpendicular to the front facade of the house was constructed in plan at the edge of the right front housepost (Figure 19). This line represented the south wall of the house. The right rear outside housepost, visible in Plate XXII, was located in the image relative to the point of scale, and this distance measured on the image plane of Plate XXII. A line of sight from S through this image point, to its intersection with the line of the south wall of the house, determined the length of Neiwons (Figure 19).

To locate the three totem poles, the distance from the center of each pole to the point of scale was measured in each image and noted on the respective image plane. Lines of sight from camera stations through these image points intersected in front of the facade plane. These intersections marked the midpoints of the fronts of each pole. Once each pole had been located in space its height could be determined.

As pointed out at the beginning of this chapter, a plane which in the image vanishes to a given vanishing point, will, in plan drawing, be parallel to a line from that vanishing point to the camera station. Each of the three totem poles was considered to represent in the image a vertical plane which vanished to both right and left vanishing points (Figure 20). In plan these planes were represented by lines running through the midpoint of each pole parallel to $S-V_r$ and $S-V_l$. Figure 20 illustrates this for the frontal pole.

Referring to Figure 20, the point at which the line through the midpoint of the pole in plan intersected the image planes of Plates XXII and XXIII (points x and y, respectively) located the point in
the image plane at which the vertical plane representing the totem pole was true to the scale of the plan. Thus, the distance in the image plane from the point of scale to x, for instance, was transferred to the image. At this point in the image a vertical line was constructed. The intersection of lines of sight from the totem pole in the image to the right vanishing point of the image with the vertical line constructed at x, determined the true height of the pole to the scale of the plan. Repeating this procedure at points x' for Plate XXII and at points y and y' for Plate XXII served as a check on the results as all four operations should yield the same answers. The results of these calculations are shown in Table 11.

The Dimensions of Neiwhns

Discussion

The dimensions determined photogrammetrically for Neiwhns have been reported in Tables 9-12. When two results for the same distance in object space were obtained, the difference between the dimensions is expressed in terms of a percentage. If more than two results for a single dimension were obtained, standard deviations are reported. Several dimensions were calculated from only one photograph, and consequently, for these only one result was obtained.

The discrepancies among some of the dimensions are the products of three types of error: gross human error, systematic error, and random error. Gross human error results from blunders in photogrammetric procedures. For example, after combining the image planes of Plates XXII and XXIII, I was initially unable to locate the midpoints
of the three totem poles correctly. In the case of the left corner pole, the lines of sight intersected behind the house facade instead of in front of it. I determined that the cause of error was the incorrect location of the camera station of Plate XXII. I had mistakenly located S for Plate XXII on the semicircle connecting the vanishing points of Plate XXIII. The error was resolved with the correct location of the camera station. Large scale human error was also apparent when it became necessary to approximate the location of edges of walls or objects in the image. Blunders of the first order described were eliminated prior to obtaining the results reported in this chapter.

Human error resulting from approximations is reflected in the Tables.

Systematic errors are inaccuracies which are consistent throughout a number of dimensions reported and can usually be explained by a single small error which is carried into the calculation of these dimensions. For example, the incorrect calculation of the scale factor in one image of the interior of Neiwin would produce dimensions that were consistently larger or smaller than measurements which were true to scale. Some systematic error is apparent in the tabulated house dimensions.

Finally, the third type of error, random error, is reflected throughout the Tables. This type of minor error is due to chance variation in the photogrammetist's ability to perform the constructions and calculations necessary to the analysis, and may also be a product of the shrinkage and expansion of photographic papers. Random error could not be corrected, but since it was considered to be small (less
than 5%), random error was relatively insignificant. Dimensions of
the house and totem poles are defined as falling within the range indi-
cated by the random error. Discrepancies larger than 5% were attri-
buted to the other categories of error mentioned above. In the
determination of the dimensions of Nei'wiw's, 5% was accepted somewhat
arbitrarily as the maximum allowable margin of error. A European
photogrammetrist, Maurice Carbonnell, has adopted 5% as a maximum
standard of error in reconstructing on paper street facades of historic
European buildings (Professor Perry Borchers, personal communication).

In the dimensions of Nei'wiw's interior (Table 9), there were
several discrepancies of 5% or greater. These errors were attributed
to human and systematic causes. The lower south housepit wall, for
example, varied 5.9% in height between measurements made from Plates
XIX and XX. The cause of this error is likely due to the fact that
the image plane does not intersect both images at the same points in
object space. Were the south wall equal in height throughout its
length, this difference in the location of the image planes would not
be reflected in the heights reported. It is apparent from the photo-
graphs, however, that this wall does vary slightly in height.

The width of the lower south platform measured 4.27' in Plate
XIX and 4.72' in Plate XX, a difference of 9.6%. Here the necessity
to approximate the line representing the far edge of the platform in
Plate XIX was undoubtedly the cause of error. In this image articles
piled along the back of the platform obscured the intersection of the
platform wall with the upper housepit wall. On the other hand, this
intersection was clear in Plate XX. This same error was projected into the determination of the vertical height of the upper south wall. Thus, the $5.2\%$ discrepancy between the height of this wall determined in Plates XIX and XX is the result of systematic error.

The heights of the rear chamber and its doorway varied by $9.7\%$ and $5.4\%$, respectively, between the two images. In this instance, the relative clarity of the object was again the reason for the differences in calculated height.

Table 12 presents the correlation of the length and width dimensions of Heiwuns obtained from analysis of photographs of its interior and exterior. In determining these dimensions from measurements made of the house interior, the following assumption was made: The platforms on the north and west (front) sides of the house which are not visible in the photographs are equal in width to their counterparts on the south and east walls which are shown in the images. In respect to the width of the house (distance between outside houseposts), compilation of interior dimensions produced measurements of $55.34'$ and $55.95'$, while dimensions calculated from photographs of the house exterior indicated a distance of $57.61'$ (See Table 12). The agreement among these dimensions was good, with less than a five percent margin of error. The discrepancy that does exist may be adjusted by modification of the initial assumption.

The location of the central axis in the plan of the exterior of Heiwuns affirmed the earlier conclusion that the innermost roof timbers were centrally located and that the drying rack which was hypo-
thesized to hang from these timbers was centered over the central axis to the house. The axis as located in the exterior plan bisected the distance separating the inner edges of the central roof timbers.

The length of the house, the distance from the front to rear housepost, determined from Plate XXII, was 54.17'. Calculation of this dimension from the house interior gave results of 56.04' and 56.16' (Table 12). The discrepancy between the larger dimension and the distance obtained from Plate XXII was 3.66% and could be attributed to random error. Data from the ethnographic literature, however, suggested another explanation. Excavation of several Haida houses at the southernmost Haida village of Ninstints on the Queen Charlotte Islands (Duff and Kew 1958) indicated that where platforms surrounding the housepit were measureable, the width of the uppermost platform was narrower in the front than in the rear. For House 3 at Ninstints the upper platform was equal in width to the upper side platforms. If the same assumption is made for Neíwéns (See Table 12), then the overall length of the house, determined from Plates XIX and XX, is within 0.9% of the results from the exterior photographs.

In Table 11 the results obtained for the height of each totem pole were averaged and the standard deviation determined. Good results for the cornerposts were obtained, with the standard deviations representing less than 5% of the means. The left and right cornerposts appear to be close in height, approximately twenty-six feet. It is possible, since the base of the left cornerpost is very difficult to determine in Plate XXIII, that the two poles are the same height. The
results obtained for the left pole in Plate XXII and for the right pole in both Plates XXII and XXIII suggest this conclusion.

The results obtained for the frontal pole were initially disturbing (See Table II). The mean height was 55.34' with a very large standard deviation of almost 15%. Repeated calculations of the height of this pole did not disclose any error. To check the results and to obtain the height of the pole by another method I turned to Plate XXI. From this photograph I measured the image height of the two bottom skål or rings on the frontal pole; I then measured the same two skål in Plate XXII, setting up the following ratio:

\[
\frac{\text{Height of skål in Plate XXII}}{\text{true height of skål}} = \frac{\text{Height of entire pole in Plate XXII}}{X}
\]

\(X\), the true height of the pole, was calculated to be 55.02'. This result is congruent with those obtained from measuring the pole in the plane formed by lines from the right vanishing point in Plates XXII and XXIII. Heights of the pole obtained from \(V_r\) in both photos are within 1.7% of one another, while only those measurements taken from the plane extending to the left vanishing point seem aberrant. Thus, the true height of the frontal pole was taken to fall between 54.89' and 55.79' with a mean of 55.23'. It is interesting to note that the measurement obtained from Plate XXII is less than that obtained from Plate XXIII. It is possible that both measurements are correct because Plate XXIII was taken nine years before Plate XXII; during this interval weathering of the pole or listing could have decreased the total height somewhat.
Conclusion

In this chapter the detailed step by step procedures for photogrammetric analysis of single photographs have been illustrated in the study of a Northern Haida house. The results of this analysis have been presented and discussed in the concluding pages of this chapter. Specifically, these results demonstrate good correspondence between dimensions obtained from analysis of different photographs taken by different photographers at different times.

This case study also indicates that it is possible to use second or third generation paper prints successfully in photogrammetric studies; this is particularly important in instances, such as the present study, where glass plates are unavailable for analysis.

More importantly, this chapter has demonstrated that photogrammetric techniques can be used in the study of traditional Haida architecture, and by direct extension, in the study of the architecture of other Northwest Coast cultures. The metrics of Neiwins are further considered in Chapter 7, and the application of photogrammetry to photographic ethnohistory in general is discussed in the concluding chapter.
TABLE 9

Neiwantis: DIMENSIONS OF THE HOUSE INTERIOR

<table>
<thead>
<tr>
<th>Feature</th>
<th>Plate XIX</th>
<th>Plate XX</th>
<th>% Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housepit</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>width (across back)</td>
<td>31.46'</td>
<td>32.07'</td>
<td>1.9</td>
</tr>
<tr>
<td>length (front-back)</td>
<td>29.51'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Platform Walls, Height</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>lower rear wall (point of scale)</td>
<td>3.83'</td>
<td>3.83'</td>
<td>0</td>
</tr>
<tr>
<td>upper rear wall</td>
<td>4.44'</td>
<td>4.28'</td>
<td>1.5</td>
</tr>
<tr>
<td>lower south wall</td>
<td>3.40'</td>
<td>3.61'*</td>
<td>5.9</td>
</tr>
<tr>
<td>upper south wall</td>
<td>4.19'</td>
<td>4.43'*</td>
<td>5.2</td>
</tr>
<tr>
<td>Platforms, Width</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>lower rear</td>
<td>4.70'</td>
<td>4.64'</td>
<td>1.3</td>
</tr>
<tr>
<td>upper rear</td>
<td></td>
<td>8.63'</td>
<td></td>
</tr>
<tr>
<td>lower south</td>
<td>4.27'</td>
<td>4.72'*</td>
<td>9.6</td>
</tr>
<tr>
<td>upper south</td>
<td></td>
<td>7.23'</td>
<td></td>
</tr>
<tr>
<td>Rear Chamber</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>height</td>
<td>10.13'</td>
<td>11.21'*</td>
<td>9.7</td>
</tr>
<tr>
<td>height doorway</td>
<td>5.93'</td>
<td>6.27'*</td>
<td>5.4</td>
</tr>
<tr>
<td>depth (front-back)</td>
<td></td>
<td>2.78'</td>
<td></td>
</tr>
<tr>
<td>width (across front)</td>
<td></td>
<td>9.14'</td>
<td></td>
</tr>
<tr>
<td>Side Chamber</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>height (from platform)</td>
<td>7.45'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>height doorway (from platform)</td>
<td>6.65'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>width (across front)</td>
<td>5.57'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rear Doorway</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>height</td>
<td></td>
<td>7.00'</td>
<td></td>
</tr>
<tr>
<td>width</td>
<td></td>
<td>3.61'</td>
<td></td>
</tr>
</tbody>
</table>

*Indicates measurement accepted as correct
TABLE 9 - Continued

<table>
<thead>
<tr>
<th>Feature</th>
<th>Plate XIX</th>
<th>Plate XX</th>
<th>% Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drying Racks</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>distance between</td>
<td>10.85'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>height</td>
<td>7.59'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Length (left rack)</td>
<td>11.79'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Railing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>height</td>
<td>2.89'</td>
<td>2.88'</td>
<td>.7</td>
</tr>
<tr>
<td>House Walls</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>height at south side</td>
<td></td>
<td>13.57'</td>
<td></td>
</tr>
<tr>
<td>height at right rear corner</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>corner (platform to bottom of</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>upper rear plate)</td>
<td></td>
<td>8.05'</td>
<td></td>
</tr>
<tr>
<td>Fireplace Area&lt;sup&gt;a&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Planking around edges</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>length (a)</td>
<td>10.48'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>length (b)</td>
<td>11.07'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>width (c)</td>
<td>8.53'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>width (d)</td>
<td>7.96'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hearth</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>length (e)</td>
<td>7.23'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>length (f)</td>
<td>6.87'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>width (g)</td>
<td>4.49'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>width (h)</td>
<td>4.42'</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<sup>a</sup>A diagram of the fireplace with the dimensions labelled is given on p. 238.
TABLE 9 - Continued

<table>
<thead>
<tr>
<th>Feature</th>
<th>Plate XIX</th>
<th>Plate XX</th>
<th>% Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Edge of fireplace to front edge of housepit (i)</td>
<td>8.68'</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Edge of fireplace to back edge of housepit (j)</td>
<td>10.42'</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Edge of fireplace to north edge of housepit (k)</td>
<td>12.73'</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Edge of fireplace to south edge of housepit (l)</td>
<td>10.48'</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

Fireplace Area

![Diagram of fireplace area with labeled edges and dimensions]
### TABLE 10

**Nesownis: DIMENSIONS OF THE EXTERIOR**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Plate XXII</th>
<th>Plate XXIII</th>
<th>Plate XXI</th>
<th>% Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>house Front</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>width between outside houseposts</td>
<td>57.61'</td>
<td>57.61'</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>end left plate to left outside housepost</td>
<td>6.86'</td>
<td>6.86'</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>end right plate to right outside housepost</td>
<td>5.60'</td>
<td>7.04'</td>
<td></td>
<td>20.5</td>
</tr>
<tr>
<td>distance between windows</td>
<td></td>
<td></td>
<td>16.39'</td>
<td></td>
</tr>
<tr>
<td>height windows</td>
<td></td>
<td></td>
<td>6.47'</td>
<td></td>
</tr>
<tr>
<td>width left window</td>
<td></td>
<td></td>
<td>3.36'</td>
<td></td>
</tr>
<tr>
<td>width right window</td>
<td></td>
<td></td>
<td>3.28'</td>
<td></td>
</tr>
<tr>
<td>width door</td>
<td>2.71'</td>
<td></td>
<td>2.71'</td>
<td>0</td>
</tr>
<tr>
<td>height door (from ground)</td>
<td>6.14'</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>height plate from ground at point of scale</td>
<td>13.18'</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>width upper plate at point of scale</td>
<td>3.79'</td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>House Length</td>
<td>54.17'</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>end right rear plate to rear inside housepost</td>
<td>6.14'</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Indicates measurement accepted as correct*
<table>
<thead>
<tr>
<th>Feature</th>
<th>Plate XXII</th>
<th>Plate XXIII</th>
<th>Plate XXI</th>
<th>% Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roof Timbers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Length (beyond front wall)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>4.18'</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>2</td>
<td>4.52'</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>3</td>
<td>4.88'</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>4</td>
<td>5.06'</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>5</td>
<td>5.06'</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>6</td>
<td>4.88'</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>7</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>8</td>
<td>4.33'</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Width</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>3.61'</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>2</td>
<td>3.07'</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>3</td>
<td>2.53'</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>4</td>
<td>2.89'</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>5</td>
<td>2.89'</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>6</td>
<td>3.25'</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>7</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>8</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

*a estimate*
TABLE II

HEIGHTS OF TOTEM POLES

<table>
<thead>
<tr>
<th>Totem Pole</th>
<th>Plate XXII</th>
<th>Plate XXIII</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Left Cornerpost</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>( V_r )</td>
<td>25.93'</td>
<td>26.73'</td>
<td>26.48'</td>
<td>.86'</td>
</tr>
<tr>
<td>( V_l )</td>
<td>25.93'</td>
<td>27.21'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Right Cornerpost</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>( V_r )</td>
<td>26.00'</td>
<td>25.46'</td>
<td>25.78'</td>
<td>.45'</td>
</tr>
<tr>
<td>( V_l )</td>
<td>25.64'</td>
<td>26.00'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frontal Pole</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>( V_r )</td>
<td>54.89'</td>
<td>55.79'</td>
<td>55.34'</td>
<td>5.00'</td>
</tr>
<tr>
<td>( V_l )</td>
<td>51.82'</td>
<td>58.86'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calculated</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>by ratio</td>
<td>55.02'</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
### Table 12

**Comparison of Inside and Outside Dimensions**

<table>
<thead>
<tr>
<th></th>
<th>From Interior Photographs</th>
<th>From Exterior Photographs</th>
</tr>
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<tbody>
<tr>
<td><strong>Length</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower</td>
<td>4.70' 4.64' 4.64'</td>
<td>4.70' 4.64' 4.64'</td>
</tr>
<tr>
<td>Platform</td>
<td>4.70' 4.64' 4.64'</td>
<td></td>
</tr>
<tr>
<td>Upper</td>
<td>8.63' 8.63' 8.63'</td>
<td>8.63' 8.63' 7.23'</td>
</tr>
<tr>
<td>Platform</td>
<td>8.63' 8.63' 7.23'</td>
<td></td>
</tr>
<tr>
<td>Housepit</td>
<td>29.51' 29.51' 29.51'</td>
<td>29.51' 29.51' 29.51'</td>
</tr>
<tr>
<td></td>
<td>56.16' 56.04' 54.64'</td>
<td>54.17'</td>
</tr>
<tr>
<td>Percent Difference</td>
<td>3.6</td>
<td>0.9</td>
</tr>
</tbody>
</table>

| **Width**      |                           |                            |
| Lower          | 4.72' 4.72'               |                            |
| Platform       | 4.72' 4.72'               |                            |
| Upper          | 7.23' 7.23'               | 7.23' 7.23'                |
| Platform       | 7.23' 7.23'               |                            |
| Housepit       | 31.46' 32.07'             | 31.46' 32.07'              |
|                | 55.34' 55.95'             | 55.61'                     |
| Percent Difference | 5.2               | 3.2                       |
FIGURE 5

(1) HOUSE WALLS IN THE IMAGE AND IN PLAN

(2) LOCUS OF ALL POSSIBLE CAMERA STATIONS
FIGURE 6
LOCATION OF CAMERA POSITIONS, S AND S'
USING STEREO PHOTOGRAPHS

\[ L - l = S - S' = V_r - V_r' \]
\[ l - v_r = V_{l'} - V_{r'} \]
FIGURE 7
LOCATION OF LOWER HOUSEPIT WALLS IN PLAN
FIGURE 8
LOCATION OF LOWER NORTH HOUSE PIT WALL
AND LONGITUDINAL CENTRAL AXIS IN PLAN
FIGURE 9
LOCATION OF THE FIREPLACE IN PLAN
FIGURE 10
LOCATION OF THE DRYING RACKS IN PLAN
FIGURE 11
LOCATION OF THE DRYING RACKS IN PLAN: 2
FIGURE 12
LOCATION OF THE REAR DOORWAY IN PLAN
FIGURE 13
LOCATION OF THE REAR CHAMBER IN PLAN

PLAN

IMAGE
DETERMINATION OF HEIGHT OF REAR CHAMBER

FIGURE 14

True Height of Chamber
FIGURE 15

PLATE XXII, LOCATION OF CAMERA STATION
FIGURE 16
LOCATION OF ROOF TIMBERS IN PLAN
FIGURE 17

COMBINATION OF IMAGE PLANES OF
PLATES XXII AND XXIII
FIGURE 18
LOCATION OF FRONT HOUSEPOSTS IN PLAN

\[ V_l(p) \quad V_r(p) \]

Fassade plane

edge of housepost

image plane

PLAN

S Plate XXIII

S Plate XXII
FIGURE 19
LOCATION OF SOUTH WALL IN PLAN
FIGURE 20
LOCATION OF FRONTAL POLE:
CALCULATION OF ITS HEIGHT
CHAPTER VII

PHOTOGRAPHIC ETHNOHISTORY IN THE STUDY OF SINGLE HOUSES

This chapter examines the individual late nineteenth century Haida dwelling through content analysis of several ethnohistoric photographs of Haida houses. Ethnological studies focusing on the dwelling as the unit of study have generally taken one of two approaches. Several anthropologists have demonstrated that material inventories of households can be analyzed for information on the behavior of the household members (LeBar 1964; Collier 1967; Ackerman 1970). In the context of culture change, study of the "object-orientation" (Ackerman 1970:17) of households yields important data on the manner in which the occupants are coping with the process of change.

A second approach analyzes the household from a synchronic, structuralist point of view. Needham (1962) and Tambiah (1964), for example, have shown how the ground plan and architecture of house units are symbolically linked to social structure. Several years previous to these studies, Paulson (1949), employing a structural-functionalist point of view, discussed the "seat-of-honor" complex in relationship to the dwellings of native North America.

This chapter examines the Haida house for evidence of acculturation and explores the social structural implications of Haida architecture. Material inventories of three houses from the 1880's are
compared with particular reference to the house of Chief Weah at Masset; the patterning of material culture within the house is discussed in relationship to the acculturative situation of the late nineteenth century. This chapter also investigates the Haida concept of "house" in respect to both the spatial distribution of status and behavior and the Haida mental template of house size and proportion. The metric data obtained from the photogrammetric study of Chief Weah's house in Chapter VI figure importantly in both analyses.

There are seven known photographs of Haida house interiors from the late nineteenth century. These photographs show the houses of Chief Weah and Chief Anétwis, both of Masset, and the house of Chief Skowal of Kasaan.¹ The interiors of all three houses were first photographed in 1884 and 1885, and there are later photos of Weah's and Skowal's houses taken after these dwellings were abandoned.

Richard Maynard took both early Masset house interior photographs and Albert Niblack took the 1885 photos of Chief Skowal's house. Although there are only three Haida house interiors known from ethnohistoric photographs, the material portrayed in these photographs conveys considerable information on Haida culture in the 1880's. We will turn first to Neïjwns, the house of Chief Weah.

¹Another photograph, NMC 36107, not a part of my sample, shows a portion of the interior of Sonihat's house in Alaska. Because this house was not located in any village, but rather some distance from Kasaan, and because so little of the house interior is pictured, it is not considered here.
Chief Weah's House: Ethnohistorical Data

We know more from the ethnohistorical data about Chief Weah than the other two chiefs whose house interiors have been recorded photographically. Chief Weah was born around the year 1810 and died on October 6, 1883 at the approximate age of seventy years. His life spans the beginning of the decline of the maritime fur trade on the Northwest Coast, through the introduction of communicable epidemic diseases to the Haida, to the period of intensive change wrought by the arrival of Anglicanism. During Weah's lifetime the Hudson's Bay Company established its first trading posts in the area, Victoria became the first city on the Northwest Coast, and Weah lived to oversee the division of Haida territory into small reserves. Weah ascended to the town chieftaincy of Masset through an unprecedented series of events. Weah's father held the title to the town chieftainship of Masset, while Weah was second in line for the town chieftaincy of the small village of Sulch'ukún across the inlet from Masset. In defiance of matrilineal tradition, Sigji, Weah's father, a member of the Ská-da(57,128),(117,170) Raven clan, passed his position on to his son, a member of the Satsúkatl'á'nas Eagle clan. To this son, in accordance with Haida tradition, Sigji also gave his father's name of Wi:ha (anglicized to Weah).

Prior to his accession to the town chieftaincy, Weah amassed a considerable amount of wealth, acquired several slaves, and married the daughter of Chief Kun from Tian (See Figure 1). Named Djat kine goná was, Weah's wife belonged to the Taslá'nas clan. At some later
point, Weah also married a Tsimshian woman, the daughter of Chief Legaic of Port Simpson. Harrison (1925), referring to this marriage, remarks that it was one of only three unions between Haida and Tsim­shian to have taken place between 1840 and 1880. I could not deter­mine if Weah's marriages were polygynous.

Weah is mentioned by some of the early missionaries, particularly Rev. Charles Harrison. The chief was among the first Haida to be bap­tized, and at his baptism in 1882 by the bishop, Weah received the given name of Stephen. Harrison (1885) notes that the chief was a good and pious man who had given up potlatching.

Informants remembered no details of Weah's funeral nor of any potlatch that followed the placement of his large marble headstone in the Masset cemetery. Weah was succeeded by his sister's son, Harry Weah, who was, in turn, succeeded by his sister's son, William Matthews, the present and last Chief Weah.

Neiwins, the "monster" house

Named for its alleged size, Weah's house was built in the cen­ter of Masset on what had formerly been Sk'aąsk'a clan property. If Weah was about thirty years old when he assumed the town chief­tainship, then his house was probably built between 1840 and 1850. A somewhat later date may be indicated as the procedure of Haida housebuilding was a lengthy one, often stretching over several years (Murdock 1936). William Matthews, the present Chief Weah, relates that 2000 people from all of the Raven clans on the north coast of the Queen Charlottes helped in the construction of Neiwins and that the earth removed
from its housepit was so great a quantity that it formed the ridge (beach ridge) which stands behind the village of Masset today.2

Neiwen was a popular subject for photographers who visited the islands in the late nineteenth century; the twenty photographs taken of the house date from 1878, 1881, 1882, 1884, 1888, 1890, 1893, and 1897. When first photographed, the house already displayed the effects of Anglo-American influence in the two windows and the door present in the facade, additions likely derived from white man's houses in Victoria. The well known Haida carver from Masset, Charles Edenshaw, made a model of Weah's house after the turn of the century and this model was later purchased by the National Museum of Man in Ottawa. This house model shows no windows in the front and has two round doorways on either side of the frontal pole. The model may represent the original house facade of Neiwen, or the two doorways, characteristic of pre-contact Haida houses, may be merely a product of artistic license. If the windows and rectangular door of Neiwen are derived from houses seen in Victoria, then they probably postdate by several years construction of the house, as Victoria was not even founded until 1849. Hudson's Bay Company posts carried items such as milled lumber, nails, doors, and windows (Harrison n.d.d), but these items were probably not in demand by the natives until the 1860's. The windows and door were thus likely later additions to Neiwen, and new plank-

2Mr. Matthews' statement contradicts both Swanton (1909) and Murdock (1936) who indicate that members of a householder's own moiety erect the house and receive at the potlatch.
ing was added where the round doorways had been. It is interesting to note that the windows on Neiwsns are placed quite high above ground level. Photogrammetric calculations indicated that each was more than six feet above the base of the house (See Table 10). Clearly the windows were not intended for the occupants of the house to view what was going on outside, or vice versa. An account of the modification of a traditional house from a Tsimshian village (Beynon n.d.) indicates that windows were added to traditional style houses as a measure of the wealth and prestige of the house owner.

Neiwsns: the totem poles

Associated with Neiwsns were nine totem poles outside the house and one interior housepost. According to one informant, Neiwsns had more totem poles than any other house in Masset. All nine poles were present by 1878 when George M. Dawson took the first photographs of Masset village. Assuming that the house was constructed between 1840-1850, the poles were erected over about a thirty year period. Three of the nine totem poles are intimately associated with the house (Plate XXIII) and their erection was doubtless considered part of the housebuilding process. With the exception of these poles, it is unlikely that more than one totem pole would have been raised at one time. Thus, spread over a maximum period of thirty years are

2If round doorways were part of the original facade and were later boarded over, this change is not apparent in the photographs. All planks on the front of the house appear equally weathered in the 1878 Dawson photograph.
the erection of nine totem poles representing at least seven potlatches, or one potlatch every four years.

The two carved cornerposts to Nei:wns, according to Barbeau (1950), relate the myth of the woman who was abducted by a grizzly bear and gave birth to twin bear cubs. Barbeau (1950) also adds that the figures on these two poles (the bears) represented the crest figures of Weah's wife's clan. The erection of carved cornerposts was apparently a privilege of a few people; Weah's house is the only one visible in any of the Masset photographs with carved cornerposts, and at the Kaigani village of Kasaan, the privilege of placing carved cornerposts in front of the house was the special prerogative of the owner of House 1.

The frontal pole to Nei:wns depicted the story of the great flood (Barbeau 1950). At the top of the pole were two watchmen figures, symbolic lookouts for visitors to the village, and between these two figures, an eagle, one of the crests of Weah's clan. To the south of the front of the house was a very tall pole with a watchman at the top pointing with his right hand out towards Masset Harbour (Plate XXVI). At its base was a bear, and on top of this figure, a raven. Eight skal or rings, said to be indicative of the wealth of the owner, separated the raven figure from the watchman at the top. The crest figures on this pole were those of Weah's wife and children. According to Murdock (1936), one of the prime reasons for the erection of a totem pole and the accompanying potlatch was the enhancement of the status of one's children. Although the literature
does not indicate whether a pole raised for the benefit of a man's children would bear their crests, his, or both, field data suggest that the first was the case. The last pole raised at Masset c. 1893 by a man of the Ch'ich' Gátane Eagle clan for his children of the Yak'uhlā'nas Raven clan had carved upon it only a grizzly bear, the crest of the children. Thus, the pole in front of Weah's house was probably raised for his children.

Pole A (Plate XXIV), just above the high tide mark and some distance away from the house was the only other totem pole containing crest figures of the Raven moiety. Described by Swanton (1909), this pole was erected as a memorial to Weah's wife, Djat kine qoné was.

The remaining four totem poles all had as their primary figure, the beaver, a crest belonging to Weah's and several other Eagle clans. Two short poles (Plate XXV, poles B and C), similar in their representation of the beaver but of differing heights, were present in 1878 and 1881 but disappear by the time the 1882 photographs were taken. Neither of these two poles could have rotted to the point where removal was necessitated. It is possible that they could have been purchased by an outsider, but their presence in any known collection of Haida material culture has not been recorded.

Charles Harrison (1925:168) suggests a possibility for the demise of these two poles. He writes:

An interesting dance was once witnessed at the house of the old Chief Wiah. The tribesmen had been dancing for about two hours when several men, carrying in an upright position a fine old totem pole, entered the house. This valuable pole belonged to one of Edenshaw's ancestors. In front of this totem Chief
Edenshaw danced a most strange and beautiful dance for about a quarter of an hour, and at its conclusion ordered the totem to be cast upon the fire and burnt, so that no other chief would ever be able to dance as he had done before this totem of a bygone ancestor.

It is possible that Harrison is describing one of the short beaver poles belonging to Chief Weah. Evidently the pole referred to by Harrison was relatively short and small as it was carried by several men in an upright position. Although photogrammetric calculations were not made on either of these two poles, using the known height of the cornerposts as a standard of measure, the shorter of the two poles would appear to have been under twenty feet in height. The beaver was also the crest of the Stast'si clan of which Edenshaw was chief; and, Weah, who received his name from his Stast'si father's father, may well have raised the pole in memory of his namesake. Whether or not both beaver poles were destroyed on this particular occasion cannot be positively determined, but their disappearance in such a manner seems to be indicated.

The two remaining totem poles associated with Neiwyns (poles D and E, Plates XXIV and XXVI) both had at their base the figure of a beaver. Pole E shows a sculpin, another of Weah's crests, carved into the stomach of the beaver figure. The base of each of these two is topped by a number of skál (sixteen and nine for poles E and D, respectively). Probably both poles were memorial poles for some of Weah's matrilineal kin.

After 1878 no new poles were added to the housesite. Two poles disappeared between 1881-82, but the remaining poles were still all
standing by 1893. By 1897 pole F (Plate XXII) had been cut down, and sometime between 1901 and 1903 when the house was razed, the three poles associated with the house were removed and cut up. In 1901 the interior housepost was purchased by C. F. Newcombe for the National Museum of Man in Ottawa. The memorial pole to Weah's wife was still standing at this time, but by 1919 when Harlan I. Smith photographed Harry Weah's new house on the site of Neiwns, all the totem poles associated with the former house had disappeared.

Neiwns: the contents of the interior

Plate XXVII was taken about eight months after the death of Chief Weah. In some respects this fact is unfortunate, for ethnohistorical data suggest an impoverished material inventory in Neiwns at this time. Collison (1915:102) remarks that on his initial visit to Neiwns in 1874 that Chief Weah "...sat on a peculiarly shaped seat carved out of one piece of wood...and placed on the first tier or platform." Swan (n.d.b) who visited the house the summer before Weah died and described some of its contents, does not mention the presence of this carved seat. Neither does it appear in the 1884 photograph. Native material culture visible in the house in 1884 is simple, plain, and utilitarian; in Neiwns there are no elaborately carved wooden boxes that one would expect to find in the rear portion of the house of an influential chief. Furthermore, Swanton (1909), Curtis (1916), Harrison (1925), and Murdock (1934b) all state that sometime after death the deceased's property was removed from the house, and informants related several specific incidents in the recent
past when an individual's property was claimed by a sister's son or other close matrilineal relative. Finally, Mr. Matthews stated that after Weah's death, the chief's Tsimshian wife took his ceremonial regalia. Nonetheless, in the absence of any personal reference to Chief Weah in the material inventory of Nei'iw'ns in 1884, a number of generalizations about culture change in the 1880's can be drawn from this and from the other photographs of Haida house interiors.

Elsewhere (Blackman 1972) I have given a detailed account and analysis of the material contents of Nei'iw'ns shown in the 1884 Maynard photograph (Plate XXVII). An inventory of all the identifiable material culture in the house totaled fifty-three items of which only seventeen were traditionally Haida (Table 13). The remaining thirty-six objects were of Anglo-American manufacture (or were made by Haida in imitation of Anglo-American items). The tabulated items in Table 13 indicate both a very narrow range of Haida material culture and a heterogeneous assemblage of non-native artifacts. Evident in the photograph are the display of non-traditional wealth items (tables, musical instruments, chairs, photographs), the use of non-native storage containers (trunks), contemporary Anglo-American clothing and shoes, and the acceptance of non-traditional food items (inferred from the coffee grinder, coffee cups and pot). The contents of Nei'iw'ns can be taken as an indicator of the considerable material acculturation of some Haida in the 1880's.

In the summer of 1970 Knut Fladmark (n.d.) excavated an historic Haida house at the Richardson Ranch Site some thirty miles southeast
<table>
<thead>
<tr>
<th>Location</th>
<th>Anglo-American Material Culture</th>
<th>Haida Material Culture</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fireplace Area</strong></td>
<td>3 stools</td>
<td>cedarbark rope on drying rack</td>
</tr>
<tr>
<td></td>
<td>child's commode</td>
<td>drying rack</td>
</tr>
<tr>
<td></td>
<td>chains on drying rack</td>
<td>drying rack</td>
</tr>
<tr>
<td></td>
<td>round container</td>
<td>cedarbark mat on floor</td>
</tr>
<tr>
<td></td>
<td>table</td>
<td></td>
</tr>
<tr>
<td></td>
<td>coffeepot in fireplace</td>
<td></td>
</tr>
<tr>
<td></td>
<td>scarf on drying rack</td>
<td></td>
</tr>
<tr>
<td><strong>Sides of Housepit</strong></td>
<td>2 tables</td>
<td>cedarbark bedroll</td>
</tr>
<tr>
<td></td>
<td>sidechair by table</td>
<td>cedarbark mat (by steps)</td>
</tr>
<tr>
<td></td>
<td>bench under table</td>
<td></td>
</tr>
<tr>
<td></td>
<td>captain's chair</td>
<td></td>
</tr>
<tr>
<td></td>
<td>accordion on table</td>
<td></td>
</tr>
<tr>
<td></td>
<td>bell on table</td>
<td></td>
</tr>
<tr>
<td></td>
<td>cot(?)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>settle</td>
<td></td>
</tr>
<tr>
<td></td>
<td>coat on settle</td>
<td></td>
</tr>
<tr>
<td><strong>First Platform</strong></td>
<td>2 sidechairs</td>
<td>cedarbark bedroll</td>
</tr>
<tr>
<td></td>
<td>captain's chair</td>
<td></td>
</tr>
<tr>
<td></td>
<td>trunk</td>
<td></td>
</tr>
<tr>
<td></td>
<td>coffeegrinder</td>
<td></td>
</tr>
<tr>
<td><strong>Second Platform</strong></td>
<td>ship's railing</td>
<td>box with lock</td>
</tr>
<tr>
<td></td>
<td>photos on doors</td>
<td>10 boxes</td>
</tr>
<tr>
<td></td>
<td>long box (by chamber)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>trunk in chamber</td>
<td></td>
</tr>
<tr>
<td></td>
<td>bed in chamber</td>
<td></td>
</tr>
<tr>
<td></td>
<td>vise on workbench</td>
<td></td>
</tr>
<tr>
<td></td>
<td>lock on box</td>
<td></td>
</tr>
<tr>
<td></td>
<td>piano stool in chamber</td>
<td></td>
</tr>
<tr>
<td></td>
<td>shoes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>scarf on railing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 barrels</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>36</td>
<td>17</td>
</tr>
</tbody>
</table>
of Masset. This house was dated on the basis of the associated artifacts at 1860. Fladmark (n.d.) notes that both the quantity and type of material culture changed as one moved from the front of the housesite to the rear. More artifacts and more of non-traditional origin were found in the rear of the house. Although only 43.8% of the length (28 feet) and 53.7% of the width (29.3 feet) of Neíwıns are shown in the Maynard photograph, this same trend is observed in the placement of several items. The size and elaborateness of the two chambers on the upper platform reflect the qualitative change in material culture as one approaches the back of the house. The chamber along the rear wall, confirmed by ethnohistorical data as belonging to Chief Weah is 2.75 feet taller than the 7.42 foot tall chamber along the side wall. The chief's chamber has doors, is decorated by photographs, has a peaked roof, and an outside source of light; the smaller chamber has no doors, no roof, no light, and no photographs. Further, four chairs are clustered beneath the larger chamber along the back housepit wall, while by the side wall of the housepit are one chair and a large settle.

As indicated above and discussed in detail later, the rear part of the Haida house is associated with the house chief, the individual of highest status within the household. Fladmark's findings in respect to the differential distribution of traditional and non-traditional material culture suggest a positive relationship between high status and material culture change. Qualitative differences in the material culture of Neíwıns seem to support this.
Chief Anétwís and his House at Masset

Anétwís (born c.1816, died 1893) was originally from the village of Kiusta on the northwest coast of the Queen Charlottes. Chief of the Q'áwís clan, he moved to Masset where he built a house just south of Weah's on clan land originally belonging to the Kíëmnsle (Raven) clan. Possibly Anétwís' wife had some claim to this house-site.

Anétwís' house was one of the last houses at Masset built on the traditional plan. In 1878 only the four large inside houseposts and the two long roof timbers for the house were completed (Plate XXV). In 1881 the house was photographed by Edward Dossetter (Plate XXVIII). By this time the rear upper plates were in place, the front frame of the house—an imitation of white style houses replete with scalloping—was finished, and two totem poles had been raised. Just behind the house frame in the 1881 photograph appears a small structure which was probably temporarily occupied by Anétwís until the house was complete (Plate XXVIII). By 1882 when Bertram Buxton photographed Anétwís' house (photo AMNH 32950), milled siding had been added to the front house frame, the side planks put in place, and two church style windows set into the facade of the house. These three photographs indicate that a minimum of four years passed from the time construction on the house began and when it was occupied.

In 1883 Judge James G. Swan (n.d.b) recorded the figures on the frontal pole to Anétwís' house in his diary and reports that he
made a sketch of the pole. All figures but one on this pole refer to
the Raven moiety and simultaneously relate segments of Haida myths (See
Plate XXIX). The figure of Raven with an enormous beak is at the base
of the thirty-six foot tall pole (John Rhodes, Pitt Rivers Museum, per-
sonal communication). Figures surmounting Raven relate the myth of the
hunter, Towats, who made love to the wife of the chief of the grizzly
bears. The two bear cubs belonging to the bear and his wife are
carved on the pole, and the bear is shown tearing out the heart of
Towats. Another bear atop these figures is eating a frog, the only
reference to one of Anétwis' crests. At the apex of the pole are
three watchmen. The only other pole associated with this house is a
mortuary pole at the right of the house with a bear at its base and
top, doubtless a memorial pole for one of Anétwis' wife's matrilineal
kin.

Neither Barbeau (n.d.) nor Newcombe (n.d.) who made lists of the
houses at Masset note any name for Anétwis' house, and informants
could not recall the name of the house. The house appears to be con-
siderably smaller than Weah's, and the photograph taken by Maynard of
its interior in 1884 reveals that it did not have a housepit. This
photograph (Plate XXX) shows the rear central and right portions
of the house. Chief Anétwis and another man, both dressed in Anglo-
American style clothing, are seated in two chairs at the right side
of the photo (Harrison n.d.b). A list of the identifiable items in
this photograph is given in Table 14. In comparing the inventories
of Anétwis' and Weah's houses, two constant factors in the respective
photographs should be noted. Both Plates XXVII and XXX were taken by the same photographer, show essentially the same portion of each house, and both photographs were made within, at most, a few days of one another.

The inventories of the two houses are generally similar. Again, most items (thirty-eight of forty-two) in Anétwís' house are of non-native origin. In respect to Haida artifacts we see only a storage box and cedarbark mats (Plate XXX). The large carved cedar box, however, is an item notably absent from Weah's house. Stools, chairs, a bench, Anglo-American clothing, and cooking utensils are also present in Anétwís' house. Strikingly similar to what can be seen in the photo of Weah's house are photographs on the rear wall of Anétwís' house. That this patterning of photographs may have been present in several Masset households in the 1880's is suggested by a note in Swan's diary.

On August 4, 1883, Swan purchased a cane with an elephant's head carved in ivory from Charley Edenshaw of Masset. "Charley told me he took it /elephant head/ from a pictorial newspaper which he showed me. It was a picture of Barnum's Elephant Jumbo in the London Illustrated News which with other pictorial newspapers were pasted on the walls of his bedroom" (Swan n.d.b; emphasis mine).

The bayonets mounted on the rear wall over the photographs and the two guns (in the bed leaning against the wall) are artifacts not seen in Weah's house. On the other hand, there are no tables in Anétwís' house visible in the photograph while several are seen in
Weah's house. In the former house there is no chamber comparable to the two in Nei'wina's. The box bed with its turned posts (Plate XXX) located beneath the photographs and bayonets is probably the functional equivalent of Chief Weah's chamber. The focal point in both Anétwis' and Weah's houses is the rear portion of the house demarcated by comparatively elaborate sleeping quarters, a display of photographs and, in the case of the former house, by bayonets mounted on the wall and the presence of a finely carved Haida box.

Chief Skowal and his House at Kasaan

Chief Skowal, clan chief of the Taslá'nas was the most important and influential chief in Kasaan at the time of his death in 1882 (Laforet n.d.). Skowal had two wives, one of whom belonged to the Yaidás clan. He had no children of his own but adopted a daughter who later married the Marquis Charles Vincent Baronovich, an Austrian whiskey trader. Skowal's two houses at Kasaan (4,5) have been discussed in Chapter V. Pertinent to the present discussion are two photographs which show Skowal's coffin and funeral display. Plate XXXI was taken by Ensign Albert Niblack in 1885. Skowal's coffin covered by a button blanket rests against the back wall of the house on top of two traditional carved boxes and between the two inside carved rear houseposts. On either side of the coffin are two more carved Haida boxes stacked on top of one another. A copper leans against the coffin. On the perimeter of the display are one trunk of Anglo-American origin and a Chinese camphorwood chest. Directly below the coffin are Skowal's personal food dishes (Niblack 1890) and a wooden bucket. A flag
(emblem unidentifiable) on a staff is to the right of these items. On the lower of the two house platforms are seven coppers, five masks, one cannon barrel, and a pair of bellows. The disposition of material culture in Skowal's house differs considerably from that in Weah's and Anêtws' houses (See Table 15), although the placement of artifacts reiterates the importance of the rear portion of the Haida house.

Most of the material pictured in Skowal's funerary display is traditionally Haida: the carved boxes, the coppers, the masks. At the same time the photographs of Skowal's house indicate that Anglo-American utensils had begun to supersede traditional food implements, and that such things as flags and military weapons had become important prestige items. Anglo-American and Chinese trunks, however, are clearly peripheral in the funeral display suggesting their lesser importance and value. From the funerary display one can also observe that there are, even in the 1880's, no substitutes or replacements for traditional items like masks and coppers. Apparently at this time these artifacts still had considerable meaning and cultural content. In sum, the distribution of mortuary property in Skowal's house indicates that ceremonial goods in the 1880's remained essentially traditional, and that by extension, in contrast to everyday life as reflected in the other house inventories, mortuary rituals remained among the most conservative areas of Haida culture. It should also be noted that at the time the Hiblack photographs were taken, Chief Skowal had been lying in state for almost two years. Chief Weah, on the other hand, had been dead for only eight months when Maynard
### TABLE 14

**MATERIAL INVENTORY OF CHIEF Anétwys' HOUSE**

<table>
<thead>
<tr>
<th>Anglo-American Material Culture</th>
<th>Haida Material Culture</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 stools</td>
<td>3 cedarbark mats</td>
</tr>
<tr>
<td>hat</td>
<td>1 carved box</td>
</tr>
<tr>
<td>kettle</td>
<td></td>
</tr>
<tr>
<td>tin pitcher</td>
<td></td>
</tr>
<tr>
<td>2 enamelware bowls</td>
<td></td>
</tr>
<tr>
<td>plate</td>
<td></td>
</tr>
<tr>
<td>barrel</td>
<td></td>
</tr>
<tr>
<td>2 sets of bedding</td>
<td></td>
</tr>
<tr>
<td>2 chairs</td>
<td></td>
</tr>
<tr>
<td>4 trunks</td>
<td></td>
</tr>
<tr>
<td>1 blanket</td>
<td></td>
</tr>
<tr>
<td>2 coats</td>
<td></td>
</tr>
<tr>
<td>12 bayonets</td>
<td></td>
</tr>
<tr>
<td>photos</td>
<td></td>
</tr>
<tr>
<td>2 guns</td>
<td></td>
</tr>
<tr>
<td>bed</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>38</strong></td>
</tr>
<tr>
<td></td>
<td>4</td>
</tr>
</tbody>
</table>

### TABLE 15

**MATERIAL INVENTORY OF CHIEF SKOWAL'S HOUSE**

<table>
<thead>
<tr>
<th>Anglo-American Material Culture</th>
<th>Haida Material Culture</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 trunk</td>
<td>8 coppers</td>
</tr>
<tr>
<td>1 camphorwood chest</td>
<td>5 masks</td>
</tr>
<tr>
<td>cannon barrel</td>
<td>button blanket</td>
</tr>
<tr>
<td>flag</td>
<td>6 carved, painted boxes</td>
</tr>
<tr>
<td>bucket</td>
<td></td>
</tr>
<tr>
<td>2 enamelware bowls</td>
<td></td>
</tr>
<tr>
<td>1 cup</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>9</strong></td>
</tr>
<tr>
<td></td>
<td>20</td>
</tr>
</tbody>
</table>
photographed the interior of his house, and there is no personal reference to the chief in the material inventory. The explanation for the difference in mortuary practices undoubtedly lies in the presence of the Anglican mission at Masset and in the absence of any missionary personnel at Kasaan.

The Haida House

Symbolic aspects

Vastokas (1965) has suggested that there were supernatural and profane areas delineated within Northwest Coast houses. She notes that the center of the Northwest Coast house was the focal point of the sacred or supernatural. In the case of the Haida house, the firepit, and above it, the smokehole, which were ideally centered in the house plan, were the points within the house at which man and the supernatural communicated. It was through the smokehole that a shaman’s power came to him, and it was via the fire that the living communed with the dead by burning food for them. When individuals were possessed by spirits, they performed dances around the perimeter of the fire.

During potlatches and dances the Haida house was transformed from an ordinary dwelling into space extraordinary. MacDonald (n.d.) notes that this was accomplished by the addition of screens and partitions. Dancers emerged from behind painted screens and potlatch wealth was concealed behind curtains which were dramatically pulled back to reveal the stacks of material to be distributed at the potlatch. The otherness of the house was also emphasized during a potlatch by the
reversal of front and back; Swanton (1909) states that the ordinary front entrance to the house was boarded over and a special entrance in the rear of the house used.

The social structure of the household was also reflected within the Haida house. Relative status was expressed along both horizontal and vertical dimensions. The front portion of the house was the domain of those of low status, and the rear central portion was reserved for the house chief. On the vertical continuum the housepit was the sleeping area for slaves, dogs, and young children, while the house chief, his wife(s), and his heir occupied the uppermost platform. This ranking of the household was reiterated on a much larger scale at potlatches and feasts. On such occasions those individuals of highest status were seated against the outside walls of the house, while lower status people were seated on the lower platforms and in the housepit. There was no room for slaves within the house during potlatches and they clustered around the front doorway to the house.

Activity within the Haida house seems to have been patterned primarily along the vertical continuum. The center of household activity was in the housepit; the least activity took place on the upper platforms which were reserved for the storage of food, clothing, and equipment and utilized for sleeping quarters.

In addition to the vertical and horizontal axes already described in the Haida house, there would appear to be an axis running longitudinally through the center of the house and another axis running latitudinally through the midpoint of the house plan (See Plate XIX).
Swanton (1909), Newcombe (1909), and Krieger (1927) all indicate that the house chief's position within the house was in the center of the upper rear platform, that is, centered on the longitudinal axis. This axis also ran through the middle of the fireplace to the doorway in the front of the house (the entrance through the frontal pole). The longitudinal axis seems to have been recognized to extend through the house to the exterior during the initiation of novices into the various secret societies. Swanton (1909:178) reports, "At the end a long pounded cedar bark rope was stretched from the doorway to the beach, and no one went by the front of the house." The latitudinal central axis represents the conceptual division of the Haida house into front and back.

Values assigned to divisions of the Haida house seem also to have been expressed in terms of purity and pollution (Douglas 1966). The expression of these oppositions centered around death and the male/female relationship. At death, an important individual of either sex lay in state in the rear central portion of the house, behind the fireplace in the "seat of honor" (Murdock 1934a:364). Only a sq'an (father's sister) of the deceased or dying could touch the body, and after the period of lying in state, clothing, bedding and other items that had been touched by the dying individual were removed from the house and burned.

There are other indications that the rear portion of the house, while the focal point of the interior and the area associated with the household member of highest status, was connected with things
polluting. The example of the death of a high ranking person has been described. Menstruating and parturient women were also secluded in the rear of the house. Dawson (1880:1308) writes, "It was also customary to screen off a corner of the lodge and give the girl /at menarche/ a separate fire, and allow her to go out and in by a separate door at the back of the house. This was connected with the idea of ceremonial uncleanliness". Those items that would be most severely damaged by contact with pollutants, the hunting, fishing, and ritual equipment of the men, were kept by the front door, away from menstruating women (Murdock 1934b). These items were also defiled by contact with death. Curtis (1916:127) notes, "Just before the corpse was put in the coffin, all men in that part of the village not separated from the house of death by running water, laid their gambling, fishing, and hunting implements outside their houses. When the cover was lashed back down, they took them in again".

The longitudinal central axis also came into play in the distinction between purity and pollution. Male hunting, fishing, and ritual equipment lay on or very close to this axis, while ritually impure women were kept as far away from the center of the house as possible. According to Swanton (1909), it was said that a woman's face would turn permanently red if, while menstruating, she came near the fireplace. The fireplace, it will be remembered, had both supernatural associations and contained the longitudinal central axis of the house.

Slaves, considered defiling by the Haida, kept away from the
longitudinal central axis of the house; they entered and left the dwelling through a door in the side wall (Harrison 1925). At death, too, a side exit was used. Murdock (1934a) notes that the body of the deceased was carried out of the house through an artificial aperture in the side house wall.

To this point, the structural analysis of the Haida house has posed at least one unresolved contradiction. The rear portion of the house, associated with the household member of highest status, might be considered polluting because of its connections with ritually impure women and death. This is in contrast to the front of the Haida house where important male possessions were deposited. So far the analysis has also suggested that the most ritually impure areas of the Haida house were those peripheral to the central longitudinal axis. I would like to propose that, while not mentioned in the literature, there was a symbolic distinction between sides of the Haida house. That this was so is implicit in the photographs of Chief Weah's house and in the actual metric division of this particular house along the axes described. The differentiation between sides of the Haida house resolves the contradiction noted above.

Influenced by the earlier work of Mauss and Hertz (Hertz 1960), Levi-Strauss (1966) and Needham (1962) have called attention to the structural significance of the distinction between right and left, and they accumulate a number of symbolic associations for each. I suggest that the right-left opposition had a meaning and content in Haida culture which is reflected in the arrangement of people and
artifacts within the Haida house. In the context of the Haida house, left was associated with ritual impurity and women, while the right hand side of the house was male dominated and ritually pure.

The 1884 Kaynard photograph of the interior of Chief Weah's house confirms at least half of the structural opposition. Referring to Plate XIX, I was able to demonstrate photogrammatically that the central longitudinal axis to Nei\wons passed just to the left of Chief Weah's chamber. Thus, this chamber falls into the right hand portion of the rear of the house. The smaller bed chamber is also located in the right hand quadrant of the house. While it could not be demonstrated that this latter chamber belonged to a male, the shoes beside the chamber and the long scarf hanging on the railing in front of the bed suggest a male occupant (Plate XXVII); it was proposed that this chamber belonged to Weah's heir. The carpenter's bench and vise in the right rear corner of the house have definite male associations, for woodworking in Haida society was a male occupation. The absence, in the right hand side of the house, of an entrance that could have been used by ritually impure women and slaves supports the position that this area of the house was male dominated. The door in the rear of Nei\wons (Plate XX), located just to the left of the central longitudinal axis is a possible candidate for use by unclean women and slaves, but its proximity to the central axis and to the chief's chamber probably preclude this function. More likely, this door is an example of the type Swanton (1909) states was used during potlatches.
Although the confinement of ritually impure women to the left
side of the house cannot be empirically demonstrated by con-
sulting the photographs, their assignment to the right hand portion
of the house has been shown to be extremely unlikely. Further, the
existence of divisions within the Haida house as extensions of the
ideological separation of male and female can be posited after con-
sidering the ramifications of this separation in Haida culture.

Among the Haida, as in many societies, sexual pollution was
asymmetric. At certain times, sexual contact with females was en-
dangering to males. Haida men abstained from sexual intercourse
prior to hunting expeditions and before engaging in warfare. A woman,
while her husband was at war, remained faithful to him and was not
allowed to touch any male's property (Murdock 1934b). One of my
informants indicated that traditionally the clothing of males and
females was washed separately; because of the menstrual period, it
was considered "bad luck" to wash clothing of the opposite sexes
together. Shamanism in Haida culture conflicted with sexuality. An
informant for the Kasaan Cultural Heritage Project stated that, "When
a man accepted power, and became a spiritual doctor, he could have
nothing to do with shellfish and nothing to do with women" (Laforet
n.d.:140). The association of the shaman's power with the centrally
located smokehole of the house is consistent with the restriction of
menstruating women to areas farthest from the center of the house.

The brother-sister taboo in Haida society can also be considered
in terms of sexual pollution. Upon reaching puberty not only was a
strict avoidance between the two enjoined, but neither was permitted to sit or lie on the other's bed (Murdock 1934a). The separation of male and female was further stressed and formalized through the mechanism of the potlatch. A girl at menarche, upon emerging from seclusion, had a potlatch given in her honor by her mother. No men were invited to this ceremony; those who received property were the sq'anl4ng (father's sisters) of the girl. Thus, the acquisition of femaleness was formally recognized in Haida society by the distribution of property from and to females.

While the right/left division of the Haida house satisfies the distribution of people within the house relative to the pollution of sexuality, still unresolved is the association of death with the rear portion of the house. Both the literature on the Haida and the photograph of Chief Skowal's funerary display (Plate XXXI) indicate that deceased people of high status were placed on the central longitudinal axis as they lay in state. However, the similar treatment of the dead of either sex does not contradict the opposition between male and female in Haida culture. First, the referents for sexual pollution are obviously live, adult, pre-menopausal females. Further, the literature on the Haida indicates that although women were dangerous at certain times to men, they could become shamans, participate at feasts on an equal basis with men, and even accede to chieftainships. Field research documented one instance from Masset in the late nine-

Sources do not indicate if only post-menopausal women could do so.
teenth century when a woman had become a clan chief. Thus, it would seem that the location of the deceased in the rear of the house was a reiteration of his status in the household while alive.

Nonetheless, despite the location of the dead within the house, death was considered defiling and strict regulations circumscribed mortuary practices. It has already been noted that special precautions were taken with men's gear as the body was placed in the coffin, and that items and bedding used or touched by the deceased as he lay dying were removed from the house and burned. Only people standing in certain kinship relations to the deceased could safely handle the body and, as noted earlier, the dead were removed from the house via a side exit.

Proportions and dimensions

The data from the photogrammetric analysis (Chapter VI) enabled me to examine in detail the utilization of space and the distribution of artifacts within a portion of a Haida house. These data also permitted the reconstruction of a few details of Haida house construction and yielded certain proportions and metric relationships in Chief Weah's house which can be tested for other Haida houses. Finally, the photogrammetric material indicates something about the Haida concept of house size. It is to these data that we now turn.

A closer examination of the longitudinal central axis in Chief Weah's house reveals some interesting points. The two innermost roof timbers of the house were centered with respect to this axis as were the windows set into the facade. Although this longitudinal axis runs
through the frontal pole to the house, it does not bisect it as would ideally be expected. The pole is just slightly to the left of center. The front door to the house, because it is not located at the base of the frontal pole, is to the side (right) of the centerline. The association of the house chief with the longitudinal central axis is indicated in a photograph taken by Edward Dossetter in 1881 (Plate XXI). Shown in front of Nei̱w̱ns in this photograph are 49 Haida, Indian Commissioner Israel W. Powell and two other white men. It is significant that Chief Weah is seated at the base of the frontal pole on a plane representing the central axis of the house. Swanton (1909) and my informants remarked that at feasts and potlatches the town chief always occupied a central position respective to the other guests, and the geographically central location of the town chief's house in the village has already been noted. What we see in Plate XXI is a reflection of this central tendency in Haida proxemics.

Some constructional features of Nei̱w̱ns were revealed by photogrammetric analysis. The projecting length of the roof timbers at the front of the house varied but was consistent. Timbers 4 and 5, the two innermost timbers (Plate XXII), extended the same length beyond the front of the house; timbers 3 and 6 were also the same length but shorter than 4 and 5; timbers 2 and 7 were the same length but shorter than 3 and 6; and, the two outside timbers, 1 and 8, were about the same length and shorter than 2 and 7 (See Table 10). As

Identified by comparison to a photograph (PA 38147) Dawson made of Weah on North Island in 1878.
Plate XXI indicates, this variation in length is not perceptible to one viewing the house from a frontal position. What these data suggest is that each pair of roof timbers of equal projection were of equal length and therefore represent halves of the same log. Thus, probably in the construction of the house, logs were split, shaped into hexagonal form, and placed symmetrically on either side of the central axis. Although these timbers appear to the observer to be spaced equidistantly, the actual distance between two timbers on a side varies from 3.25 to 4.33 feet. The diameters of these timbers also vary; undoubtedly this characteristic is due to the individual hexagonal shaping of each timber.

The fireplace in the Haida house was ideally centered in the house plan. Photogrammetric calculations determined that this was not true for Neïïwïns. In respect to the latitudinal axis, the fireplace was off center by only about ten inches; the right-left displacement of the fireplace, however, was almost two feet (See Table 9).

The determination of the height of Chief Weah's chamber resolved a conflict in data reported in my earlier article (Blackman 1972). Mr. William Matthews of Masset reported that the chamber was built within the house, while the ethnohistorical literature was ambiguous on this point. The appearance of the chamber in the photographs suggested that it did extend beyond the back wall of the house due to the presence of an external source of light inside. Photogrammetric calculations indicated this chamber was only 35 inches deep from its front to the back wall of the house. A bed and trunk visible inside
the chamber were positive evidence that this chamber was built partially beyond the back wall of the house.

The overall width/length proportions of Neívwns can be compared to these proportions for Haida houses from other areas on the Queen Charlotte Islands and from Kasaan. These data have been tabulated in Appendix A. Chief Weah's house is nearly square with a width/length ratio of 1.0257. Unfortunately, we have no other dimensions for houses at Masset, but Weah's house contrasts strikingly with six of the seven houses measured at Kasaan. As reported in Chapter V, all Kasaan houses with the exception of House 4 were longer than they were wide with a mean ratio of .8337 and a standard deviation of .0121.

From the northern Queen Charlotte Islands there are four other houses for which length and width dimensions are known (Appendix A). Three houses from Kiusta (See Figure 1) yielded width/length ratios of .9559, .9945, and 1.0352 (Nick Gessler, personal communication). George M. Dawson in the summer of 1878 measured a Haida house at the village of Kung which he also sketched in his journal. This house had a width/length ratio of 1.1426. Although the sample of houses from the Northern Haida area is small, compared with the material from Kasaan, the data suggest that northern Haida houses tended to be square while those at Kasaan were longer than they were wide.

Duff and Kew (1958), working at the village of Ninstints in the southern Queen Charlottes, measured fourteen houses. The width/length ratios of these fourteen houses, in contrast to Kasaan houses and the five northern Queen Charlotte houses, are quite heterogeneous (See
Appendix A). Duff and Kew (1958) note that they could not successfully correlate the houses they mapped with Swanton's house list for Ninstints. Thus, it was not possible to determine if there was any relationship between clan affiliation, status, and house proportions. Neither could house proportion be linked to house type at Ninstints. Possibly the variation in Haida house width/length ratios is idiosyncratic, although the Kasaan data in particular would suggest otherwise. Despite the diversity among house ratios reported in Appendix A, these data do strongly suggest that Fladmark's estimated house size for the Richardson Ranch Site house is in error. The width/length proportions of this house, 1.6095, are far beyond the range of any known Haida house.

The symmetry of dimensions in the facade and three totem poles at the front of Nei'iwns merit brief mention. It is perhaps no accident that the frontal pole is very nearly equal in height to the width of the house across the front (See Tables 11, 12). Also, the carved cornerposts are each just half the height of the frontal pole. It is obvious, however, from examination of other houses present in the Masset series of photographs, that the relationship reported here is not necessarily the norm. The inside dimensions of Nei'iwns suggested that the upper rear platform was wider than the upper front platform, the latter being equal in width to the upper side platforms; the lower platform was probably the same width front, back, and sides. It seems that the focal area of the house, the upper rear platform, was emphasized by constructing this platform slightly wider than the front
platform. The greater width of the rear platform drew the attention of those entering the house to the house chief's portion of the dwelling.

The great depth of the housepit of Neįw̓ns seems unusual in respect to housepit measurements reported in the ethnohistorical and ethnological literature. Recorded depths of Kaigani housepits (Blackman 1972) affirm the aberrancy of the depth of Weah's housepit. Perusal of Swanton's house lists for the major Haida villages (Swanton 1909) suggests that if a housepit were constructed as deep as the one in Neįw̓ns (almost eight feet), it would be comprised of not two but several platforms, each only about one and one-half to two feet in depth. Chief Skowal's housepit (See Plate XXXI), for example, is a two-tiered pit but is much shallower than the one in Neįw̓ns. A housepit of the depth of Neįw̓ns was probably not constructed prior to the acquisition of Anglo-American steps or ladders such as the several sets shown in Plate XXVII. Thus, the aberrant proportions of Weah's housepit may be viewed as a function of material acculturation.

The dimensions of this housepit lead to a general consideration of the meaning of house size in Haida culture. Statements from both the ethnohistorical literature and from informants led me to believe

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6Professor Perry E. Borchers (personal communication) suggests that the traditionally shallower platforms surrounding the Haida housepit provided natural seating. With the enlargement of the platform in height (as in Weah's house), this traditional seating function was lost.
that Neiliwins was much larger than it actually proved to be. Yet its 55.8' x 54.4' dimensions represent a total area not much larger than the house of Chief Skowal at Kasaan, the house Dawson measured at Kung, and Gitkun's house at Tanu (See Appendix A). Thus, Harrison's statement (1925:58) that Weah's house was the "largest Haida house ever built in recent times" does not seem warranted.

Doubtless there was more to a "large house" in Haida culture than sheer size. In respect to engineering principles, the maximum size a Haida dwelling could attain would be reached first in the length dimension, since most of the weight of the house was borne along the longitudinal axis. Houses of the type of Weah's with six to eight roof beams would, because of the added weight of the center beams, reach their limit in length before the interior support roof beam type of house (See Figure 2). Thus, if size alone were the primary factor involved in the construction of an important "large" Haida house, we would expect to find houses of the second type described to be greater in length than the exterior roof beam support type of house. However, this does not happen; neither type of house would appear to attain the maximum possible length or width.

Therefore, we can conclude that the "largeness" of a Haida house is not dependant upon size along. As suggested in Chapter V, the effective size of a house might be increased by the addition of features indicative of the wealth of the owner, such as carved inside houseposts or a housepit. What seems significant in terms of the "size" of a Haida house are the number of people involved in its
construction (regardless of the actual dimensions of the house) and the amount of wealth distributed at the housebuilding potlatch. It should be remembered in respect to Weah's house that three totem poles stood at the front of the house, directly associated with the dwelling and its construction. The number of figures on these poles, the intricacy of the carving, the status of the carver(s) all figure into the retribution given at the potlatch. Furthermore, the number of roof timbers and their relationship to house dimensions may be a clue in determining the meaning of the greatness of Ne\text{\textit{\textsc{\texttimes}}}ns. Curtis (1916) notes that each roof timber on a Haida house was put into its proper place by a different chief. Thus, the greater the number of roof timbers (two vs. six vs. eight) the more important people involved in the house construction, and the greater the wealth that must eventually be distributed. In sum, I would suggest that the effective size of a Haida house was a function of the addition of totem poles (inside houseposts, frontal poles, cornerposts), the depth of the housepit which according to Curtis (1916) had to be dug in a single day, the number of people involved in the house construction, and ultimately, a function of the content of the housebuilding potlatch.

Conclusion

In this chapter I have attempted to illustrate how the single house can be effectively analyzed from study of photographic ethnohistorical documents. Changes in late nineteenth century Haida culture were seen in their relationship to the individual house. The photographic materials, combined with data from the ethnohistorical
literature and the results of the photogrammetric analysis, formed the basis for a discussion of the structural dynamics of the traditional Haida house. Finally, photogrammetric data on one Haida house were discussed in respect to their contribution to an understanding of Haida conceptions of house size and proportions.
CHAPTER VIII

SUMMARY AND CONCLUSIONS

I am in agreement with Barreis (1961) and others who state that ethnohistory coordinates diverse kinds of data in the solution of anthropological problems, and that as a problem-oriented approach it serves to enrich the ethnological literature. The general aims of ethnohistorical research are to demonstrate the effective use of new source material, to refine existing methodology, to introduce material and techniques from other disciplines, and to contribute to our understanding of the culture history of a particular people.

The general theoretical premise underlying this study is that early photographs are an important type of ethnohistorical document which can be systematically examined for their cultural historical content. In this dissertation diverse sources on Haida culture have been brought together within a carefully fixed temporal-spatial framework. Data from several types of primary documents, from fieldwork, from historic photographs, and from the ethnographic literature were co-ordinated and applied to the investigation of specific problems in Haida culture history. Early photographs, valuable but heretofore unexploited ethnohistorical documents, have been presented as historic artifacts which upon analysis revealed three patterned content levels. The sample of 196 photographs was examined on all three of these levels.

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Photogrammetry, a science in its own right, has been successfully applied to ethnohistorical photographs of Haida architecture to provide data on the dimensions of a Haida house and totem poles. Finally, this study offers a perspective on Northern and Kaigani Haida culture in the late nineteenth century and on some of the changes it underwent.

Methodological Considerations: Content Analysis of Photographs

In Chapter IV I detailed a general methodology for the study of early photographs which employs content analysis combined with documentary evidence. Application of this methodology successfully revealed temporal, spatial, and content patterning in the photographs. Analysis of the photographs for evidence of season indicated that 70% of the 196 photographs were taken during the summer, compared to only 7% taken during the winter, the months of comparative leisure and ceremonial activity in Haida culture. Study of the photographs in respect to their distribution in space showed the following: 1. the photographers made virtually no attempt to record settlement pattern; 2. photographers remained on beaches in front of villages and did not intrude on property claimed as housesites; 3. houses of important individuals were photographed more often; and, 4. permanent villages were recorded on film but seasonal campsites were not. Content analysis of the photographic sample revealed that the overwhelming majority of the photographs (92%) were images of houses and totem poles in the major villages; other material culture and evidence of economic acti-
vity were, for the most part, incidentally recorded; and, few photographs focused on people.

Several explanations for biases in this sample of photographs were offered. Climate was noted to be a factor in the accessibility of Haida villages during the winter months and was given as a primary reason for the dearth of winter photographs. The problems of cross-cultural communication account in large part for the few photographs of Haida people and house interiors. The technology of photography in the 1880's may also have played a role in contributing to the biased nature of the sample. The inability of the early cameras to record life and action was offered as another explanation for the lack of human behavior in the photographs.

Methodological Considerations: Photogrammetry

The results of the photogrammetric analysis of Chief Weah's house in Chapter VI proved most significant. Metric analysis of several photographs of this house accomplished two major ends. First, the study represents a successful test of the application of photogrammetry to the study of Northwest Coast architecture under minimal conditions. Secondly, this methodology has demonstrated that it can yield accurate data which are obtainable by no other means. The photogrammetric analysis of Chief Weah's house provided information on Haida culture that cannot be replicated through recourse to archaeological excavation; nor do ethnohistorical and ethnographic sources provide us with these data. Thus, photogrammetry contributes unique
Due to factors of time only three of the nine totem poles belonging to Chief Weah were studied photogrammetrically; the results of the analysis indicate, however, that the dimensions of the remaining six poles could be accurately determined and a picture of the spatial patterning of an entire housesite provided.

The wider potential of photogrammetric analysis in photographic ethnography is exciting. Photogrammetry could figure importantly as a research tool in studies of late nineteenth century settlement patterns. For the entire Haida region there exist nearly 2000 early photographs, about 90% of which are of villages and totem poles. Several of these village sites (e.g. Kasaan, Cumshewa, Tanu, Skedans, Ninstints) contain the remains of house foundations and totem poles, features which can readily be linked with their appearance nearly 100 years earlier in photographs. The procedure would involve taking aerial photographs of the village sites with a photogrammetric camera. With three known points of survey control on the ground it is possible to map a large area and then project the metric data obtained from these aerial photos back into the ethnographical photographs. Thus, by combining photogrammetric technology with ethnographical photographs, entire village plans and elevations could be very exactly reconstructed. This reconstruction is even possible for villages like Masset where photographs taken at an oblique angle to the houses obviated the type of study illustrated in Chapter V. With the exception of a housepit depression on the hill, Idjao, the housepit retaining
wall of Chief Weah's house, and a marble monument, no nineteenth century features of this village survive today. However, these three features constitute minimal but sufficient data for reconstructing the plan and elevation of Masset.

Photogrammetric analysis of Haida village sites holds great potential for a study of the exact patterning of material culture over an entire region and the exploration of region-wide variations in settlement patterns. This type of study would also be important because there are identifiable links between Haida settlement patterns and socio-political organization. Photogrammetric analysis would provide a means of determining the exact spatial relationships among the different types of Haida totem poles and their distribution in respect to housesites. Such an investigation would also contribute data on the metrics of totem poles. The height of giáng were known to have been a function of the wealth and status of the owner of the pole. Through photogrammetry the relationship between parameters of house size and the number and spacing of totem poles could be explored; house proportions could also be examined over the entire Haida region. Projection of metric data into ethnohistorical photographs from different time periods would permit study of the metrics of change in the village plans.

Photogrammetric methods could be utilized in a culture area wide study of Northwest Coast architecture and settlement patterns. There are ample ethnohistorical photographs of villages of major Northwest Coast tribes contemporary with the Haida photographs which could be
utilized in such a study.

The application of photogrammetry to the study of traditional
non-Western architecture is not limited to the Northwest Coast area. Professor Perry E. Borchers, under the sponsorship of the Historic American Buildings Survey, has begun a reconstruction of six Western Pueblo villages. Literally thousands of nineteenth century glass plate negatives of these pueblos exist, and aerial photographs of the modern pueblos provided the ground control necessary to the reconstruction process. The anthropological application of photogrammetric techniques need not be limited to the traditional architecture of native North America but could be applied wherever ethnohistorical photographs of village sites exist together with some features at the sites identifiable in early photographs.

Aside from the value of photogrammetry to studies of ethnohistoric settlement patterns, the historical value of such analysis merits brief mention. Village reconstructions, in addition to providing data for anthropological investigation, preserve on paper and to exact scale, vanished native villages precisely as they appeared at a given point in time.

As regards photogrammetry, the position of ethnohistoric photographs is a pivotal one. Although photographic technology has limited ethnohistorical photographs to a recent and narrow span of time, the results of photogrammetric analysis can provide the basis for examining archaeological settlement patterns or for studying the relationship between late nineteenth century site patterning and that of today.
The Ethnohistoric Photographs and Perspectives on Traditional Haida Culture

Combination of the ethnohistorical photographs with other ethnohistorical sources, field data, and archaeological data contributed information on traditional Haida culture not noted in the literature. Analysis of the photographs of Kasaan village, combined with comparative study of the photographs of Masset indicated that village social and political organization were reflected in the arrangement of features within the village site. The coordinates of status and political rank were noted to be: the location of a house on the flanks of the village (Kasaan and Masset), the geographically central location of the house of the town chief (Masset), the location of a house on high ground, the erection of a large number of totem poles on one's house-site, and the construction of a "large" house.

Kinship organization is reflected in the patterning of crests upon totem poles and in the spacing of poles within the village site. The distribution of xat poles at Kasaan reflected both ideological and behavioral levels of kinship organization. The dual division in Haida culture, which does not function in actual behavior, was noted only in the groupings of poles in the two graveyards at the western end of the village. On the other hand, the functioning kinship groups, the clans within the moieties, were identifiable in the arrangement of figures upon giäng poles. Although many crests were shared by all of the clans within a moiety, Swanton (1909) notes that fifteen of the twenty-three Eagle clans and twenty of the twenty-two Raven clans had distinct crests. Often giäng serve to identify precisely the clan
affiliation of a house owner, and the presence of the houseowner's wife's crest on the giäng, originally noted by Swanton (1909), communicates the affinal-political alliances of house units. Considering all the totem poles within the Haida village, their arrangement, spacing, and content could effectively serve as a map to the village socio-political organization. Combined with other cues to village socio-political organization such as house "size" and location, a visitor approaching a Haida village from the water could, in fairly short order, determine which houses belonged to which clans, and to which clans houseowners were affinally allied. Murdock (1934b) noted that when an outsider came to a village, he headed straight for the house of a fellow clansman. That the poles served as important communicators of village organization is suggested by Swan (n.d.b) who writes, "The carvings on these columns besides the owner's crest...had a legend attached to it which is readily understood by the tribe, and each column has an individual and distinguishing name." That the poles reaffirmed knowledge about village organization for many and served as a map for the unknowledgeable is likely, but an even more important function is suggested.

As noted in Chapter II and in the example of Chief Weah's and Anétwis' houses, a new house would often be constructed either upon the frame of an old house or upon a housesite which had formerly belonged to another clan. The erection of a frontal pole communicated this transfer of property as well as the matriclan identity of the new house chief and his wife. Totem poles raised to mark the death
affiliation of a house owner, and the presence of the houseowner's wife's crest on the giāng, originally noted by Swanton (1909), communicates the affinal-political alliances of house units. Considering all the totem poles within the Haida village, their arrangement, spacing, and content could effectively serve as a map to the village socio-political organization. Combined with other cues to village socio-political organization such as house "size" and location, a visitor approaching a Haida village from the water could, in fairly short order, determine which houses belonged to which clans, and to which clans houseowners were affinally allied. Murdock (1934b) noted that when an outsider came to a village, he headed straight for the house of a fellow clansman. That the poles served as important communicators of village organization is suggested by Swan (n.d.b) who writes, "The carvings on these columns besides the owner's crest...had a legend attached to it which is readily understood by the tribe, and each column has an individual and distinguishing name." That the poles reaffirmed knowledge about village organization for many and served as a map for the unknowledgeable is likely, but an even more important function is suggested.

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of an individual or to elevate one's children communicated changes in status. Therefore, more than merely channelling information to the visitor of a Haida village, the totem poles functioned to communicate important changes in the socio-political organization.

The communication of social organization through artifact patterning is also noted in the analysis of photographs of individual Haida houses. In Chapter VII it was pointed out that status within the Haida house was traditionally distributed along both horizontal and vertical continua and that the arrangement of material culture within the house reflected this household organization. Analysis also revealed a conceptual division in Haida culture between right and left, ritual purity and impurity, male and female, which was played out in the architecture of the Haida house. Photogrammetric analysis served to demonstrate this patterning for one Haida house.

The proxemics of Haida culture which were noted in the patterning of houses within a village and in the distribution of space within the Haida house were reiterated in other areas of the culture. The importance of verticality and its connection to status was noted in the preference for locating houses on high ground, in the importance of very tall giáng, and in the carving of many skál on totem pole figures. The achievement of height was also revealed in the location of the household members of highest status on the upper platform within the Haida house. This patterning was repeated at potlatches and feasts held within Haida houses. On these occasions the guests of highest status were placed above those of lower status. At death, too, ver-
tically distinguished status differences. High status people were placed above ground level on burial poles, commoners at ground level, and slaves were given to the depths of the sea. In Masset and the other Queen Charlotte Haida villages the centrality of the town chief was reiterated at feasts when he occupied the middle position relative to other guests. This central tendency was even noted in a photograph taken at Masset in the 1880's in which Chief Weah is seated exactly in the middle of the front of his house, flanked by some fifty other people.

MacDonald (n.d.) notes that there were two types of Haida house construction (See Figure 1, types A and B) and suggests that on the basis of wider distribution, the interior support type of house (B) was older. Study of the ethnohistoric photographs indicated that both types (A,B) occur in the northern Queen Charlotte Haida villages, that type A is most common in the central and southern portions of the Queen Charlottes where at some sites it is the exclusive type, and that type A does not occur at all in Kaigani villages. Ethnohistoric photographs revealed a third type of house construction, a variety of the interior roof support type, B. Field survey and study of the photographs indicated the presence of this type of house (B') at Yan, Kolandlas, Howkan, and Kasaan (See Figure 1). Type B' occurs infrequently, and photographs of Tlingit houses suggest that its presence in Haida villages is a result of Tlingit influence.

Photogrammetric analysis of Chief Weah's house was suggestive of some of the processes of Haida housebuilding, particularly the arrange-
ment of the roof timbers upon the plates. More importantly, photo-
grammetric study of the house suggested that traditional Haida con-
ceptions of house size were not so much a reflection of the actual
floor space involved but of the presence or absence of features such
as carved inside houseposts, a deep housepit, carved cornerposts, a
very tall frontal pole, and of course, an impressively large potlatch
upon completion of the structure.

The Ethnohistoric Photographs and
Perspectives on Culture Change

Study and analysis of the patterning and arrangement of material
culture within ethnohistoric photographs in combination with ethno-
graphic, ethnohistorical, and field data pointed to the operation of
three processes of culture change. First, conservatism in the face
of initial change is indicated by evidence in the photographs. The
concept of conservatism in change has been cogently expressed in
Romer's Rule (See Hockett and Ascher 1964). Applied to the process of
culture change, Romer's Rule can be rewritten to read: "The acceptance
of new cultural material and ideas is initially conservative in that
it permits the maintenance of the traditional social system." A second
process which follows from conservative responses to change involves
the combination of new and traditional elements into new functional
forms (See Barnett 1953; Herskovits 1955). A third aspect of culture
change is apparent from analysis of ethnohistorical photographs. It
was noted in Chapter V that the rate of culture change varied within
different areas of Haida culture.

By 1870 the Haida had access not only to a variety of building
materials of Anglo-American origin (milled lumber, windows, doors, trim, etc.), but they had access to architectural models in nearby white settlements along the Northwest Coast. The photographic materials indicate that while the Haida readily adopted innovative foreign building materials, these were employed in a conservative manner. For a long time only Haida house fronts were altered by the addition of siding, windows, doors, etc., and these items were incorporated into the traditional system of expressing status and rank through the display of material culture. It was noted that the patterning of these materials may also have reflected clan affiliation. The alteration of the house front permitted the houseowner to participate in material innovation and change while leaving intact the internal arrangement of the house and thus the social organization of the household.

Totem poles at Kasaan and other villages showed similar patterning, reflecting the incorporation of new elements with the traditional Haida crests. A totem pole recording an event that could only have come about under an acculturative situation (the baptism of a Haida chief) was noted at Kasaan; the carving was non-traditional, but the internal organization of figures on the totem pole indicated the traditional placement of crests of husband and wife. Two other Kasaan poles had representations of white men carved upon them. One such figure symbolized the "crest" of a white man incorporated into the traditional Haida social system. Photographic and field data also indicated that totem pole raising continued after the erection of traditional and neo-traditional housing was discontinued. This is
particularly apparent at Kasaan, and the implications of it are impor-
tant.

The acceptance of white style housing represented a quantum leap
in respect to its social organizational ramifications. While tradi-
tional house fronts and elements carved upon totem poles could be
altered without affecting the traditional social organization, this
was not the case with the adoption of white style housing. One salient
feature of white style houses emerges from ethnohistorical field data.
While traditional houses were named, white style houses had no identity.
They were detached from tradition, and their acceptance marks the dis-
appearance of the housebuilding potlatch. According to Curtis (1916),
the structural composition of the traditional Haida house was linked
to Haida social structure. Individuals of certain positions were res-
ponsible for placing particular structural members of the house in
place. With the adoption of architecturally foreign styles of housing,
it became impossible to transfer the traditional housebuilding group
to the erection of this housing. Thus, the ceremony which involved
the retribution of those who aided in the construction of a new house
was consequently lost.

The appearance of white style housing marked the disappearance
of the largest and most prestigious form of Haida potlatch, the
'wa'el or housebuilding potlatch. Today its attenuated functional
replacement is the feast. Compared to house construction, the lack
of structural intricacy inherent in the construction and erection of
a mortuary pole made the transferral of the mortuary potlatch from the
raising of a mortuary pole to the erection of tombstones a relatively simple matter.

Investigation of the interiors of late nineteenth century Haida houses by means of photographs reflects not only the conservative functioning of change but, perhaps somewhat paradoxically, the positive relationship between the maintenance of traditionally high status in Haida culture and material acculturation. Study of two Haida house interiors at Masset showed many more items of Anglo-American derivation than of Haida origin. Yet, it was noted in Chapter VII that the arrangement of these artifacts indicated usage of house space in traditional ways and the arrangement of people within the house also according to tradition.

Much of the Anglo-American material culture so evident in the photographs of Haida culture was reinterpreted as it was adopted by the Haida, acquiring new functions and meanings. This was already noted for the windows placed in house fronts which were an indication of the wealth and prestige of the houseowner. The display of bayonets and the guns placed in the rear central portion of Anétwys' house (Plate XXX) were part of a wealth display as likely were the several tables shown in Weah's house (Plate XXVII). The use of introduced items of material culture as part of a wealth display is also vividly depicted in Chief Skowal's funeral display (Plate XXXI). At death an individual was always surrounded by his most important property. Here a cannon barrel, a pair of bellows, and a flag are integrated into the display of traditional material culture.
Differential rate of culture change has been noted in respect to housebuilding and totem pole raising. It is perhaps most strikingly apparent in comparison of the house interiors of Skowal, Weah, and Anétwis. The inventory of household items in Tables 13, 14, and 15 indicates that rituals surrounding death were the most conservative and resistant area of traditional Haida culture. Memorial totem poles for the dead were also the last traditional items of material culture to be constructed at Kasaan. In another article (Blackman 1973) I have indicated that death rituals in Haida culture today represent the primary ties with the traditional culture. It is only in relation to the mortuary complex that traditional clan reciprocities still function, and the "headstone raising" is the only vestige of the system of pot-latching that survives among the Haida today.

Conclusion

Ethnohistorical studies are inevitably incomplete and ethnohistorians, like prehistorians, must seek to make wholes from many disassembled parts. To this extent, ethnohistorical research is frustrating and dissatisfying. At the same time, more anthropologists are turning to this type of research as cultures become irretrievably lost to ethnographic field study. As new methodologies and new sources of data are discovered, ethnohistorical research becomes a more powerful tool for the study of culture, and the potential of its contributions are increased. Northwest Coast studies conducted along the lines of the present study should help to determine if the patterns of culture change delineated are viable. Much ethnohistorical work remains to be
done on the Northwest Coast alone. The Church Missionary Society archival material on the Northwest Coast has not been systematically studied, the wealth of photographic ethnohistorical data for this area has barely been tapped, the Hudson’s Bay Company have much as yet unresearched data, and ethnohistorical field research in the area is still feasible for at least some time to come. Studies in photographic ethnohistory are applicable as well to other culture areas of native North America, and for some North American areas there are photographs dating ten or more years earlier than the earliest photographs of the Haida.

The nature of my own ethnohistorical research and reconstructional anthropological research in general were placed in proper perspective for me by an old man from Hydaburg, who cast my research aims in his own terms. "It's like a seine net," he said, "Once you tear it, you can never make it whole again, but you can mend it so it works."
## APPENDIX A

### HAIDA HOUSE DIMENSIONS AND PROPORTIONS

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<th>Width</th>
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<th>Proportion width/length</th>
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