INDIAN & PIONEER SETTLEMENT OF THE NOOKSACK LOWLAND, WASHINGTON TO 1890

by
DAVID G. TREMAINE

Occasional Paper #4

Center for Pacific Northwest Studies
Western Washington State College

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Although much has been written on numerous aspects of the settlement of Whatcom County, from Indian times through to the arrival of the late nineteenth century "pioneers," little of this work has been undertaken by academic writers and hardly any by those trained in geography. Furthermore, the works cited by Burton L. Anderson, Bernice Elenbaas (Mrs. Bernice Vossbeck), William H. Pierson, Curtis R. Smelser, and Don N. Taylor were written as dissertations or theses in departments of geography across the country and, with the notable exception of William H. Pierson's Geography of the Bellingham Lowland, published by the Department of Geography, University of Chicago, none is readily accessible to the scholar or the interested layman.

Consequently, it is a privilege for me to be able to introduce a work on the geography of Whatcom County written by a geographer who focuses sharply on the main themes of settlement geography - on settlement form and settlement process, as well as the physical and cultural influences affecting these. In preparing his paper the author has made extensive use of the previously published works of local historians and others, as well as a number of unpublished and published academic papers. He has made somewhat less extensive use of the manuscript sources available for research on the topics treated. In brief, the author has provided a useful framework for systematic study of the settlement of a single county of the State of Washington, rather than an incisive reassessment of earlier findings. However, here and there prior assessments and conclusions are challenged and a few errors of facts and interpretation corrected.

Originally written as a thesis accepted in partial fulfillment of the requirements for the degree of Master of Arts in the Department of Geography and Regional Planning, Western Washington State College, the present version has been somewhat reorganized and revised. Footnotes appear as "endnotes" to each chapter, while one chapter on the physical geography of Whatcom County has been deleted and part of this material incorporated in some of the endnotes.

The present volume, illustrated with some contemporary and a few specially-prepared maps and many early photographs, will likely be of considerable interest to the general reader as much as the student of Whatcom County history.

James W. Scott, Director
Center for Pacific Northwest Studies

ACKNOWLEDGMENTS

Many people have shown encouragement, interest, assistance, and patience in the working and completion of this paper on the Nooksack Lowland.

I would especially like to thank Dr. James W. Scott, Chairman of the Department of Geography and Regional Planning and thesis committee chairman, for his untiring assistance and insistence over the last six years. It is he who nurtured the original seed of student thought and who helped it grow to fruition.

Also most helpful and patient have been Dr. Robert L. Monahan, Department of Geography and Regional Planning, and Dr. Keith A. Murray, Department of History, both members of the thesis committee who gave freely of their time and knowledge. Thanks are also conveyed to Dr. F. Stanley Moore and other members of the Department of Geography and Regional Planning, past and present, who expressed their interest and gave assistance of various sorts.

Further, thanks are not complete without mentioning Stanley Jeffcott, Mrs. Mabelle Jeffcott Smith, the Hawley family, Bill and Barbara Van Dyken, John Morrell, Gerrit Byman, the Veleke family, Ray and Myrtle Moblo, the Clamdiggers' Association, the Whatcom Museum of History and Art, and hundreds of others who gave active support and freely of their time and resources, and to Mrs. Anita Johnson who prepared the present version of the paper for publication.

Within the time this paper was begun and completed the Berthusen Barn has been saved; the Center for Pacific Northwest Studies created; Skqee Mus republished; and the Whatcom Museum of History and Art completely restored. All hold a special interest to the author. A very special man, Warren E. Hawley, whose lucid tales of the early Lowland filled many beguiling hours, did not live to read this final draft. He will, however, always be remembered for the great person he was.

Finally, at time when most needed, my parents, Iran and Donna Tremaine, have been my strongest supporters and advisors. Their understanding is especially appreciated.

David G. Tremaine

CHAPTER I

Introduction

Although settlement geography has been of interest to geographers since the time of Herodotus, it has only been in the last twenty-five years that geographers have attempted to define and limit its scope.

One of the first attempts to define settlement geography in America was made in 1954. At that time Kohn and his committee of collaborators defined settlement geography as generally having to do with " . . . the facilities men build in the process of occupying an area."[1] Until then settlement studies had been as varied in approach as were the geographers who pursued what they considered to be settlement studies. Some of the studies dealt with process, others with form, and in general most studies concerned with either settlements, the process of settling, or settlement forms were loosely classified as studies in settlement geography.

Realizing that further refinement was needed regarding current definitions or notions of settlement geography, Stone proposed in 1965 a comprehensive definition for the field. Settlement geography according to Stone may be defined as "the description and analysis of the distribution of buildings by which people attach themselves to the earth." He goes on to say that the geography of settling should " . . . designate the action of erecting buildings in order to occupy an area."[2]

Prior to Stone's definition, process and form had emerged as the two major concerns of settlement geographers in both Europe and America. Although some geographers stressed the process of settling an area, and others the form settlements took, most geographers realized that both were integral parts of settlement studies in general. Stone suggests that both should be taken into account in order to determine the core of settlement studies, namely, the building--where it is and why it is there.[3]

Stone's proposed definitions of 1965 were not accepted without some criticism. For example, Jordan suggested settlement geography be defined as "the study of the form of the cultural landscape" and felt

that Stone ignored structure type as well as field patterns, which have generally been included as parts of settlement geography.[4] Such studies of house form, settlement patterns, and field systems, as Jordan alludes to, include the studies of Scofield, Spencer, Kohn, Kniffen and Glassie, Bowman, Trewartha, and others.[5]

Although there still exist differences among geographers as to exactly what settlement geography entails, it is important to record that Stone has researched and documented both European and American trends in the field with considerable care. It is his definition which appears to be the most workable for the wide range of geographers currently pursuing settlement studies, and which extends to the parameters of what may truly be considered settlement geography.[6]

Within the scope of settlement geography, urban and rural settlements are distinguished. Stone suggests that the geography of rural settlement be defined as "the description and analysis of the distribution of buildings by which people attach themselves to the land for the purposes of primary production." Urban settlement, on the other hand, "is the larger grouping of buildings where secondary and tertiary production is dominant."[7] The distinction between urban and rural settlement is made clear. In Stone's words:

> . . . rural means an areal predominance of agriculture, forestry, mining, fishing, hunting and trapping, or power production directly from local resources. People there usually live in separated single dwellings or in small clusters (hamlets or villages to a maximum size of perhaps 200 buildings) but still in an area of largely primary production.

whereas

> Urban settlement is the larger groupings. . . generally clear in the literature by virtue of the large number of references in urban geography (usually on cities larger than 25,000 people). Because cities have developed so rapidly in the past century urban geography has understandably dominated settlement geography to the extent that pseudo-urban geography, that of the large villages and towns, is as much in danger of being overlooked as is the geography of rural settlement.[8]

Taking into consideration Stone's suggested definitions of rural and urban settlement geography, it is apparent that a clearly defined and well-organized method must be established if effective analysis of the

distribution of buildings by which people have attached themselves to the land is to be accomplished. In the present study, the central concern of which is the settlement geography of the Nooksack Lowland[9] immediately prior to and for a few decades following the initiation of white settlement in the area, Stone's definitions are used with slight modification.

The Problem

When the first American settlers moved into the Nooksack Lowland in the early 1850s they came into direct contact with two groups of people occupying the area--the Lummi and Nooksack Indians. The Lummis occupied territory near the mouth of the Nooksack River while the Nooksacks occupied territory in the interior of the lowland.

By the 1870s both Indian groups and newly-arrived American settlers were vying for ownership and use of the fertile lowland area. Expansion of American settlements in the 1860s and 1870s and the containment of Indian settlements at selected sites markedly changed the aboriginal pattern of settlement already established. In its place developed a pattern of compromise--a pattern based primarily on the perceived needs of an American agrarian society and the concomitant need for the segregated settlements or reservations for the major Indian populations. It becomes apparent that physical and cultural factors were involved in the working out and final arrangement of white/Indian land apportionment and subsequent settlement.

The purpose of this study, therefore, is to isolate and analyze the physical and cultural factors which influenced the establishment and modification of Indian and pioneer settlement patterns in the Nooksack Lowland. The study falls logically into three sections which deal respectively with the settlement geography of the Lummi Indians, the Nooksack Indians, and the American pioneers.[10]

Methodological Considerations and Research Matters

The description and analysis of human settlements require the consideration of both natural and cultural factors.[11] Settlement pattern--the result of an analysis of form--is basically either dispersed or nucleated and it is so defined only after an examination of cultural and physical interrelationships.[12]

By studying and analyzing process and form, the settlement geographer is able to view the cultural and physical determinants of settlement pattern, by which he means those classes of factors which interact with one another to produce the spatial configuration of a group of people. Cultural determinants include such aspects of settlement as the social structure of a group, economic pursuits, the level of technology, and political influences. Physical factors include the influence of site, terrain, drainage, climate, vegetation, and soil.

Process refers to the examination of the causes of the establishment of settlements, their growth and modification. It is process which substantiates or modifies conclusions regarding settlement form and which requires an overall historical perspective. Process, then, deals with the origins of settlements, their growth, and their modification.[13]

All analysis--either that of process and form or of the physical and cultural determinants--leads to the study of the actual buildings of settlement. It is the dwellings, moreover, that are of primary importance in that they are the human expression of man's transformation of the landscape. Jean Brunhes states that in human geography:

> . . . everything leads ultimately to the house and collection of houses called a town or village, so that at the very end of every study of human geography, whatever that may be, we shall be compelled to examine and determine how these phenomena are represented also, as corollaries or consequences, by houses scattered or massed together.[14]

While the present study employs the methods outlined, it is also concerned with functional analysis and the choice of house-types. Functional analysis establishes various levels of settlement patterns: individual buildings; the arrangement of structures in a single community; and the distribution of buildings or communities over the land. An analysis of house-types provides for a closer examination of effects of cultural and physical factors on specific settlements.[15]

Material included in the present study is based on intensive research in libraries and local archival collections. Of great importance were materials found in the Jeffcott[16] and Northwest Collections of the Bellingham Public Library; the libraries of Western Washington State College and the University of Washington; and the archives of the Whatcom Museum

of History and Art. Other resources were found in the City Archives, Vancouver, British Columbia; the Washington State Library, Olympia; and in private libraries.

The study was begun initially in September, 1969 and was greatly helped as a result of interviews with pioneers and their families attending the annual meeting of the historic Clamdiggers' Association on November 11, 1969.[17] Further research in settlement and historical geography, settlement archaeology and Indian settlement patterns, Whatcom County and Pacific Northwest history, and several field surveys in the Nooksack Lowland ensued.

Photographs examined and utilized in the study include those in the Jeffcott Collection, Center for Pacific Northwest Studies; the Whatcom Museum of History and Art; and the Washington Historical Society. Additional information has been gleaned from personal scrapbooks and diaries.

Local historians--the most prolific being P. R. Jeffcott--were not primarily interested in pioneer house form, settlement patterns, or other aspects of the geography of the lowland. However, their works contain bits and pieces of pertinent information which are most valuable to the settlement geographer. On August 11, 1970 the Jeffcott family presented to Western Washington State College a large and invaluable collection of negatives of log houses and other historic buildings, sites, and activities of Whatcom County. With the creation of a Center for Pacific Northwest Studies at the college in 1971 these and other materials that had been assembled by P. R. Jeffcott and others began to be placed in the Center's care.

Finally, anthropologists provide major information in their studies of the Lummis and various aspects of their economy, society, movements, and territory. An investigation into archaeological records also proved to be fruitful, especially in the case of the Nooksack Indians. And, in order to clarify the research already completed, as well as to assist in further research, various interviews and communications with pioneer families became necessary and were subsequently arranged.[18]

Previous Studies of Whatcom County and the Nooksack Lowland

Several geographical studies have been undertaken which deal with

various aspects of the geography of Whatcom County and the Nooksack Lowland.[19] Anthropological, sociological, and archaeological studies have also been completed on the Lummi Indians and their settlements.[20] Little of substance, however, has been written on the Nooksack Indians.[21]

Historical works on the area covered in this study are those of Jeffcott, Roth, Hawley, and Judson.[22] Understandably, these local histories have proven to be invaluable in the working out and understanding of the process of lowland settlement.

NOTES

[1]Clyde F. Kohn et al., "Settlement Geography," in American Geography: Inventory and Prospect, eds. Preston E. James and Clarence F. Jones (Syracuse, New York: Syracuse University Press, 1954), p. 125.

[2]Kirk H. Stone, "The Development of a Focus for the Geography of Settlement," Economic Geography, 41, no. 4 (1965), pp. 346-47.

[3]Stone, "Geography of Settlement," p. 347. Stone goes on to say that the "focus is on more than dwellings for people, implied as fixed, complete, solid, and permanent installations. It includes lean-tos, tents, huts, fish and fur collection stations, woodcutters' barracks, barns, equipment sheds, storage structures, multiple residences, power generation units, service centers, and factories." In a later paper, Hudson states, "The terms form and process are opposite to geography's two primitives, respectively, geometry and movement." John C. Hudson, "A Location Theory for Rural Settlement," Annals of the Association of American Geographers, 59, no. 2 (June 1969), p. 365.

[4]Terry G. Jordan, "On the Nature of Settlement Geography," Professional Geographer, 18 (1966), pp. 26-28.

[5]For example, see Edna Scofield, "The Origin of Settlement Patterns in Rural New England," Geographical Review, 28 (1938) pp. 652-63; J. E. Spencer, "House Types of Southern Utah," Geographical Review, 35 (1945), pp. 444-57; Clyde F. Kohn, "The Use of Aerial Photographs in the Geographic Analysis of Rural Settlements," Photogrammetric Engineering, 17 (1951), pp. 759-71; Fred Kniffen and Genry Glassie, "Building in Wood in the Eastern United States," Geographical Review, 56, (1966), pp. 40-66; Isaiah Bowman, "The Scientific Study of Settlement," Geographical Review, 16 (1926), pp. 647-53; and Glenn T. Trewartha, "Types of Rural Settlements in Colonial America," Geographical Review, 36 (1946), 568-96.

[6]Stone states that definitions and bibliographies of settlement geography in the most part have been broad. He states that "interpretation of the use of the term by geographers mirrors this breadth to a point of gross confusion; settlement has been employed to mean everything from a broad geographical history of all stages of persons living in an area to a detail of construction in a house, or of a road, or of a custom of local inhabitants. This variety of definition and usage has been surveyed to demonstrate the need for agreement on a focus so as to make possible international comparisons and to prevent misunderstanding." See Stone, "Geography of Settlement," p. 354.

[7]Stone, "Geography of Settlement," pp. 347-48.

[8]Ibid.

[9]The Nooksack River Lowland, located in the northwestern corner of the State of Washington, comprises 225 sq. miles of the Nooksack

River basin's total drainage area of 826 sq. miles. See Hydrology and Hydraulics Committee, Pacific Northwest River Basins Commission, "River Mile Index: Stillaguamish River, Skagit River, Samish River, and Nooksack River." April 1968, p. 34.

[10]The period of pioneer settlement is here considered to have lasted approximately 40 years from 1850 to circa 1890. As Washington achieved statehood on November 11, 1889, the term "pioneer" may loosely be applied to inhabitants of Washington Territory.

[11]See Albert Demangeon, "The Origins and Causes of Settlement Types," in Readings in Cultural Geography, eds. Phillip L. Wagner and Marvin W. Mikesell (Chicago: University of Chicago Press, 1962), pp. 506-516.

[12]Emrys Jones, Human Geography (New York: Frederick A. Praeger, 1964), p. 115.

[13]It should be noted that process alone has been of major interest to geographers in the past, especially during the 1920s and 1930s. See Stone, "Geography of Settlement," p. 353.

[14]Jean Brunhes, Human Geography (London: George G. Harrap & Co., 1952), p. 33.

[15]For example, see Kniffen and Glassie, "Building in Wood," pp. 40-66; Spencer, "House Types of Southern Utah," pp. 444-57; and Amos Rapoport, House Form and Culture (Englewood Cliffs, N.J.: Prentice-Hall, 1969).

[16]Now in the Center for Pacific Northwest Studies, Western Washington State College, Bellingham.

[17]The Clamdiggers' Association's tradition of yearly meetings began in 1891. Since 1909, Whatcom County pioneers have met every year on November 11 in Lynden. Membership is granted to those whose relatives lived in Washington before it became a state, November 11, 1889. There are still living a few members who were born in Washington Territory.

[18]Mrs. Selma Swanson, Ferndale, was in the process of writing a sketch of her life in Whatcom County for this study at the time of her death, July 31, 1970. Another native of Whatcom County, Warren E. Hawley, the eldest son of Robert E. Hawley, an early settler in the Lynden area, died on April 20, 1972. Fortunately, Mr. Hawley had been interviewed on several occasions in the previous three years. It might be noted that Mrs. Swanson was the first white female born on the Nooksack, and Mr. Hawley the first white male.

[19]Geographical studies include: Bernice Elenbaas, "The Nooksack Valley: A Regional Geography," (Unpublished M.A. thesis, Clark University, Worcester, Massachusetts, 1946); William H. Pierson, The Geography of the Bellingham Lowland, University of Chicago, Department of Geography Research Paper No. 28 (Chicago: University of Chicago Press, 1953); Burton Laurence Anderson, "The Scandinavian and Dutch

Rural Settlements in the Stillaguamish and Nooksack Valleys," (unpublished Ph.D. dissertation, Department of Geography, University of Washington, Seattle, 1957); Don Newman Taylor, "Changes in the Economy of the Lummi Indians of Northwest Washington," (unpublished M.A. thesis, Department of Geography, Western Washington State College, 1969); and Curtis Ray Smelser, "Human Occupance of the Nooksack River Valley and the Influence of Man on the Rate of Sediment Delivery to Bellingham Bay," (unpublished M.S. thesis, Department of Geography, Western Washington State College, 1970).

[20]Bernhard J. Stern, The Lummi Indians of Northwest Washington (New York: Columbia University Press, 1934); Wayne Prescott Suttles, "Economic Life of the Coast Salish of Haro and Rosario Straits," (unpublished Ph.D. dissertation, Department of Anthropology, University of Washington, Seattle, 1951), and idem, "Post-Contact Culture Changes Among the Lummi Indians," British Columbia Historical Quarterly, XVIII, nos. 1 and 2 (January-April 1954), pp. 29-102.

[21]Richard V. Emmons, "An Archaeological Survey in the Lower Nooksack River Valley," Anthropology in British Columbia, no. 3 (Victoria: British Columbia Provincial Museum, Department of Education, 1952); Marian W. Smith, "The Nooksack, Chilliwack, and the Middle Fraser," Pacific Northwest Quarterly, 41 (October 1950), pp. 330-41; P. R. Jeffcott, "The Nooksack Indians: A Brief History of the Tribe," (unpublished MS, Center for Pacific Northwest Studies, Western Washington State College).

[22]P. R. Jeffcott, Nooksack Tales and Trails (Ferndale: Sedro-Woolley Courier Times, 1949); Lottie Roeder Roth, History of Whatcom County, 2 vols. (Seattle: Pioneer Historical Publishing Co., 1926); Robert Emmett Hawley, Skqee Mus or Pioneer Days on the Nooksack (Bellingham: Miller and Sutherlen, 1945); Phoebe Goodell Judson, A Pioneer's Search for an Ideal Home (Tacoma: Washington State Historical Society, 1966). Other local histories which include some pertinent details are Lelah Jackson Edson, The Fourth Corner (Bellingham: Cox Bros., 1951), and idem, "Pioneers Along the Bend of the Nooksack," (copy: Center for Pacific Northwest Studies, Western Washington State College; mimeographed: Bellingham, Office of the County Superintendent of Schools, 1945); Chris Siegal, Early History of Ferndale and Ten Mile Townships, Whatcom County, Washington (Bellingham: Cox Brothers and Williams, 1948); Roy Franklin Jones, Boundary Town (Vancouver, Washington: Fleet Printing Co., 1958); and Donald H. Clark, Eighteen Men and a Horse (Seattle: Metropolitan Press, 1949).

Hawley's Skqee Mus was republished in 1971, with an introduction by David G. Tremaine, by the Whatcom Museum of History and Art, Bellingham, Washington.

CHAPTER II

LUMMI INDIAN SETTLEMENT

Introduction

Prior to the first European explorations of Puget Sound and the Strait of Georgia, the Lummi Indians occupied a large territory which included the San Juan Islands, the Lummi Peninsula, Point Francis, Lummi Island, and sites at the mouths of the Nooksack and Lummi rivers. With an economy based on the fisheries of the straits and dependent upon mobility by canoes, the Lummis had established nucleated settlements at the northwestern extremities of San Juan and Lopez islands, East and West Sounds of Orcas Island, and on the mainland near the southwestern portion of the Nooksack River Lowland. (Map 1)

The fisheries drew the Lummis seasonally from their mainland and island winter villages in order to replenish their depleted stores of salmon. Clams, dug in the tide-flats near the settlements or on adjacent beaches, were strung and dried in preparation for winter. In addition to salmon and shellfish, other foods were sought for winter stores.[1]

Both the original San Juan settlements and the mainland settlements served as winter villages and were considered permanent. During the spring and summer months, temporary structures were used by the Lummis as they moved in groups about the islands and along the coast in search of wild foods. Winter and seasonal settlements varied in form and structure to some degree, and were the two settlement types associated with the Lummis.

As far as trade relations were concerned, in 1827 the Hudson's Bay Company established a post at Fort Langley on the Fraser River, and in 1843 another at Victoria on Vancouver Island, with both of which the Lummis were able to trade. Fort Langley was the center of trade for the Straits Salish until the establishment of the post at Victoria; after 1843 it functioned only as a subsidiary center as most Straits Indians traded at Victoria.[2] The Lummis also carried

on a barter trade with neighboring tribes on the mainland and adjoining islands. The trading area of these operations extended from as far north as the Fraser River to as far south as the White River.[3]

Before 1850, however, the Lummis abandoned their San Juan settlements and moved their winter headquarters to the mainland shores around Lummi Bay, Hale Passage, and Bellingham Bay.[4] This move was initiated primarily by small-pox epidemics and tribal warfare. Small-pox, which took a heavy toll of the island populations as early as 1782, was also a problem in 1852 and 1862.[5] Persistent attacks from the north by warring bands of Indians left the Lummis vulnerable to great losses of life.[6] Suttles explains that

> By the middle of the last century the islands were becoming depopulated: that is, winter villages were disappearing, though they were still being used seasonally by people from the Mainland. Some of the island villages had been wiped out, or nearly so, by the first small-pox epidemic in the 1780s. Raids from the north undoubtedly also struck the island villages, possibly more often than those of the Mainland. By 1850 the most important villages were those at Gooseberry Point and The Portage on the Mainland. The important leaders of the 1850s were from these villages. . . .[7]

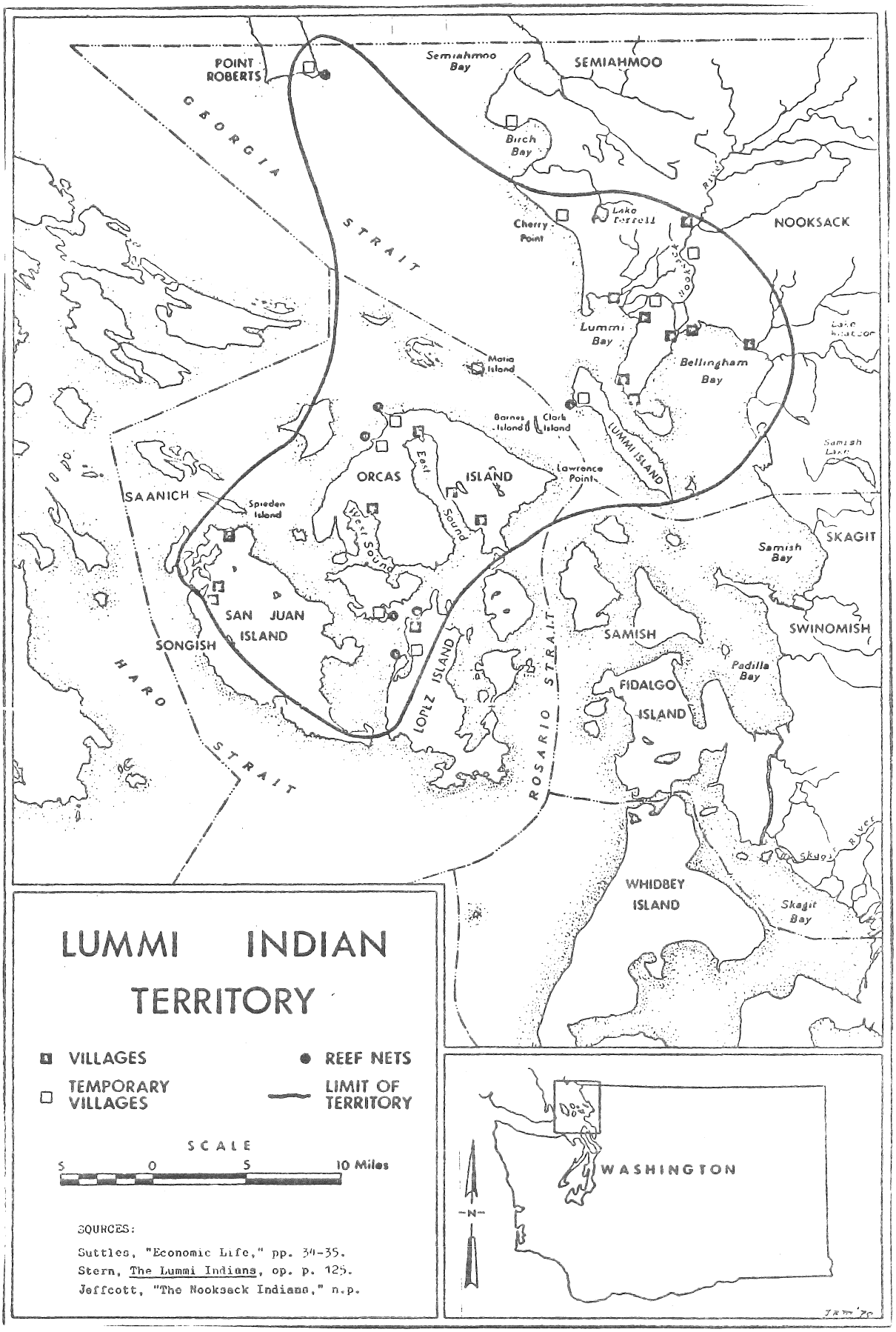
Before 1840, most of the larger villages on the mainland had stockades for protection. An early and elaborate fortification at Gooseberry Point was reported to have been built by the Lummis for protection from the northern marauders.[8]

The movement to the mainland that took place prior to American settlement on Bellingham Bay, the loss in Lummi population, and the construction of fortified settlements, were all factors which influenced the modification of traditional Lummi settlement patterns.

The Distribution of Settlements

The distribution of Indian settlement sites along the waterways of the Pacific Northwest was typical of the Coast Salish Indian groups and a reflection of their interests in the water bodies as a source of food and as routes for transportation. Various studies have established that the Indians' permanent houses were generally located at strategic points along the waterways, especially at the mouths of rivers or streams.[9]

MAP 1


POINT ROBERTS
Semiahmoo Bay
SEMIAHMOO
GEORGIA STRAIT
Birch Bay
Cherry Point
Lake Terrell
NOOKSACK
Lummi Bay
Bellingham Bay
Mata Island
Barnes Island
Clark Island
LUMMI ISLAND
Lawrence Point
ORCAS ISLAND
East Sound
West Sound
SAANICH
Spieden Island
SAN JUAN ISLAND
SONGISH
HARO STRAIT
LOPEZ ISLAND
ROSARIO STRAIT
SKAGIT
Samish Bay
SWINOMISH
SAMISH
Padilla Bay
FIDALGO ISLAND
WHIDBEY ISLAND
Skagit Bay
LUMMI INDIAN TERRITORY
VILLAGES
TEMPORARY VILLAGES
REEF NETS
LIMIT OF TERRITORY
SCALE
5 0 5 10 Miles
SOURCES:
Suttles, "Economic Life," pp. 34-35.
Stern, The Lummi Indians, op. p. 125.
Jeffcott, "The Nooksack Indians," n.p.
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Winter Settlements

Permanent Lummi villages in 1850 were closely connected with the sea or to the lower portions of the Nooksack River drainage system. As Map 2 shows, the major settlements were distributed in a linear pattern along Hale Passage and Bellingham Bay; their raison d'etre was access to the sea. Other sites were located near the mouth of the Lummi River and upstream along the banks of the Nooksack. Also, a few winter structures are believed to have been maintained throughout the year in the San Juans, but, for the most part, the focus of permanent settlement was on the mainland shores of Whatcom County.

Suttles, Stern, and Jeffcott have located major mainland settlements at Gooseberry Point on Hale Passage and at The Portage and near Fish Point on Bellingham Bay. Other villages are thought to have been located north of the Lummi delta; south of the Lummi delta on the Lummi Peninsula; at Marietta near the mouth of the Nooksack; upstream from Marietta on the right bank of the Nooksack near Ferndale; south of Tennant Lake on the left bank of the Nooksack; and at the mouth of Squalicum Creek on Bellingham Bay. (See Map 1A and Table 1). The latter sites are all believed to have been settlements associated with fish-weir sites, but their permanence as winter villages has been questioned.[10]

Between each of the mainland settlements were stretches of infrequently used lands which, for the most part, were covered with dense stands of Douglas fir. According to Smith, the settlements of the Salish groups were often located more than an hour away from each other by canoe or trail, with many units even more isolated.[11] The Lummi settlement on the Nooksack River near Ferndale, for instance, was nearly five miles from Bellingham Bay by canoe, while the settlement at Fish Point was nearly three miles away by land from The Portage settlement at the southern tip of the Lummi Peninsula. The two major villages at Gooseberry Point and The Portage were about one and one-half miles from each other by foot or canoe as compared to the nearest San Juan villages which were a day's journey by canoe.

TABLE 1

LUMMI WINTER VILLAGES* AND NAMES

Suttles	Stern	Jeffcott
Gooseberry Point "gooseberry point"	Temxiwiqsan	Clam-quis-ksum, "place of the gooseberries"
The Portage, "narrowing"	Sxalisan	Squa-tas-um, "land covered with water"
Fish Point, "snake place"	Xwetliqiem	Nu-quesk-a-um, "many snakes"
"portage" near Ferndale	_____	Ta-tasum, "above us"
Squalicum Creek,* "dog salmon place"	_____	_____
_____	Eleq* (Marietta)	_____
_____	Momli* (on Lummi Bay north of Gooseberry Point)	_____
_____	_____	Noot-sack-um*
On left bank of Nook-sack, south of Tennant Lake (no name)	_____	_____
_____	_____	Quahn* (north shore of Birch Bay)

*An asterisk indicates permanence is questionable.

SOURCES: Suttles, "Economic Life," pp. 34-35; Stern, The Lummi Indians, map op. p. 125; and Jeffcott, "The Nooksack Indians," map, n.p.

Seasonal Settlements

Seasonal settlements were even more extensively distributed and isolated from one another than the permanent settlements on the mainland. These settlements were found throughout the San Juan Islands and along the mainland coast as far north as Point Roberts.

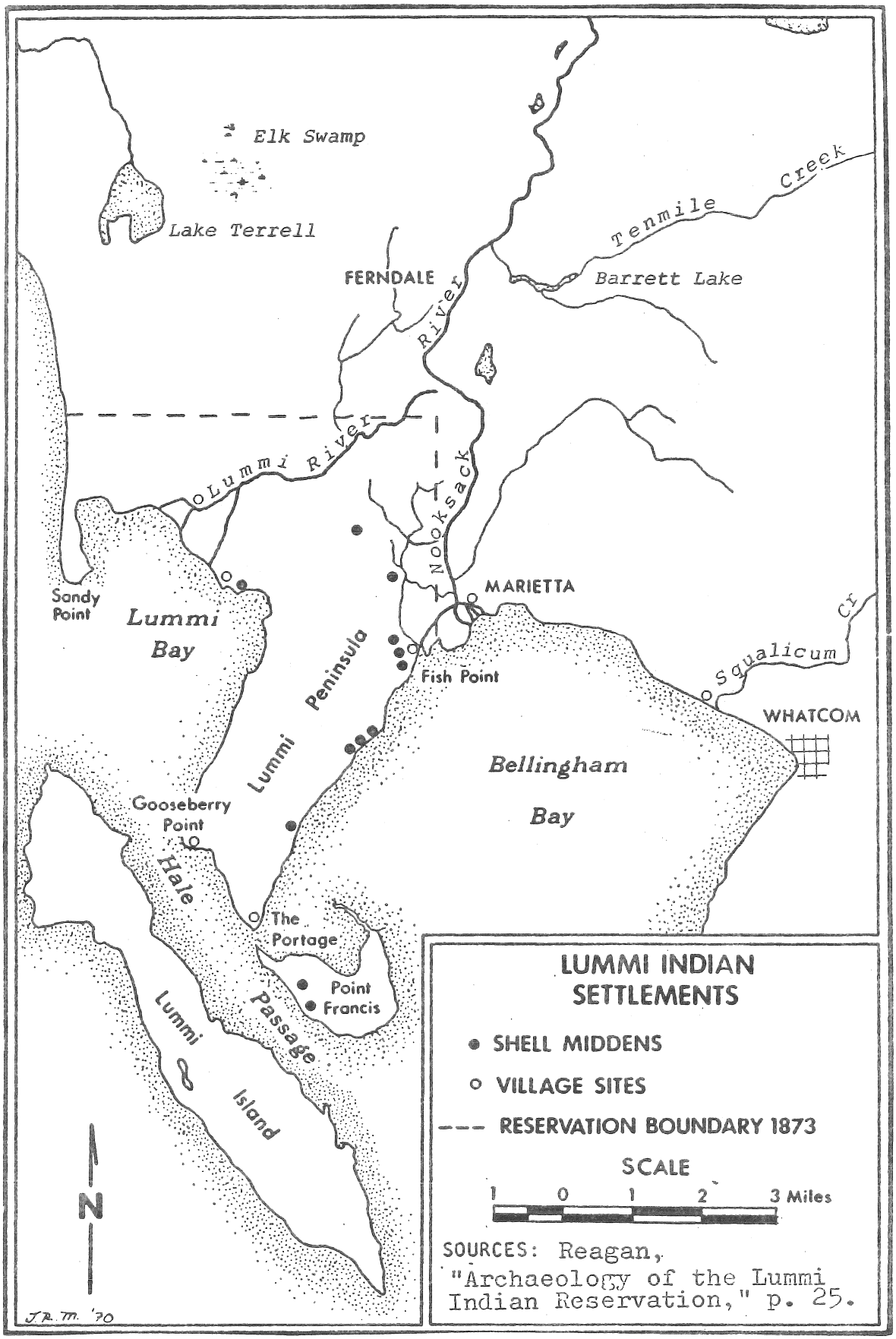
Major reef-netting sites were the scenes of greatest economic activity, and often associated with these sites were large, seasonal settlements made of well-built homes. Temporary camps for reef-net fishing were located on Orcas, San Juan, and Lummi islands and at Point Roberts and Cherry Point on the mainland.[12] (See Map 1) Other temporary camps were located at weir sites on the Lummi and Nooksack rivers near the "permanent" villages already mentioned, and on smaller islands in the San Juans.

Smith notes that ". . . houses of the local [Salish] units were erected on suitable sites near important fisheries"[13] and, according to Suttles, the two most important Lummi settlements were at reef-net sites at Cannery Point on Point Roberts and Village Point on Lummi Island.[14] It might be noted in passing that both sites are still important West Coast fisheries.

Other seasonal settlements have been traced through the locating of "kitchen," or shell middens. In an archaeological study done in 1917, Reagan located middens at twelve different places on the Lummi Indian Reservation, some near winter villages. Several middens were estimated to be 1,500 to 2,000 years old; others to be more recent, dating back approximately 150 years.[15] Major middens have been found south of the settlement at The Portage on the west coast of Point Francis; one mile south of Fish Point on Bellingham Bay; near the mouth of the Nooksack River; and in the deltas of both the Lummi and Nooksack rivers. Smith and Fowke found cairns and middens in the San Juan Islands, at Point Roberts, and near the mouth of the Nooksack River;[16] other middens have been found at Birch Bay.

The locations of other seasonal settlements are difficult to determine; if and when the seasonal migrations of the Lummis are more accurately traced, then the probable location of other settlements may be better understood. Certainly many seasonal settlements

MAP 1A


Elk Swamp
Lake Terrell
FERNDALE
Nooksack River
Tenmile Creek
Barrett Lake
Lummi River
Sandy Point
Lummi Bay
Lummi Peninsula
MARIETTA
Fish Point
Squalicum Cr.
WHATCOM
Bellingham Bay
Gooseberry Point
Hale Passage
The Portage
Point Francis
Lummi Island
N
J.R.M. '70
LUMMI INDIAN SETTLEMENTS
SHELL MIDDENS
VILLAGE SITES
RESERVATION BOUNDARY 1873
SCALE
1 0 1 2 3 Miles
SOURCES: Reagan, "Archaeology of the Lummi Indian Reservation," p. 25.

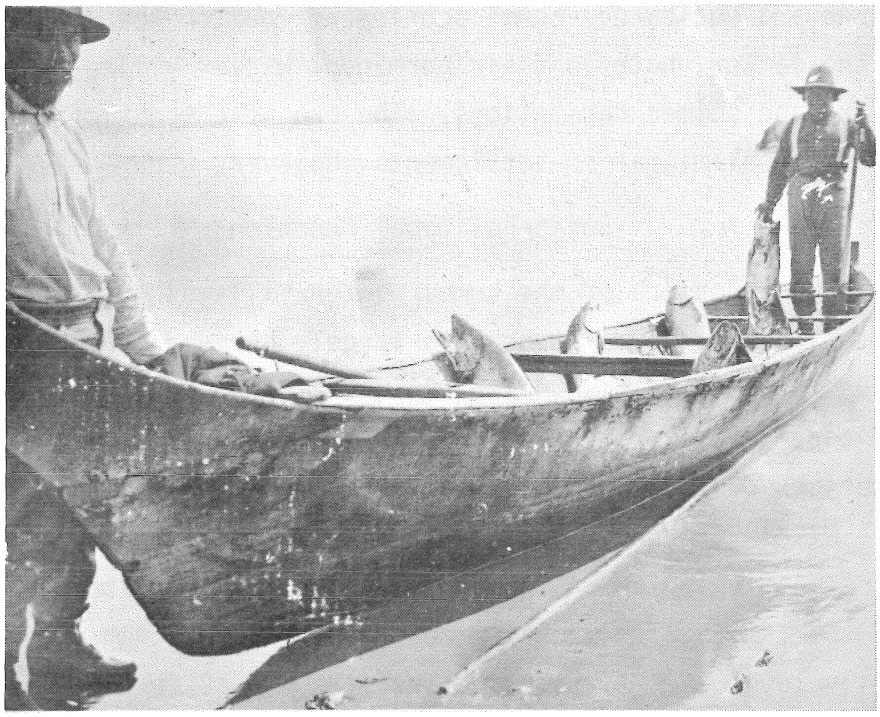


Fig. 1. The Lummi Indian "saltchuck" canoe provided transportation to fishing sites along the mainland as well as in the San Juan Islands. (Jeffcott Collection)

were of short duration and dependent upon the supply of wild foods at the site so that the archaeological evidence which may exist is likely to be slight. Seasonal movements have been traced to Clark, Spieden, Barnes, and Matia islands for camas bulbs; to Village Point and Sandy Point for duck as well as fish; to Point Lawrence for cod; to Elk Swamp, near Lake Terrell, for elk hunting; and to the Cascade Mountains, via the Nooksack River, for mountain goat.[17]

Village Functions

Of the two fundamental types of settlement patterns--the dispersed and nucleated--Lummi settlement took on the characteristics of the latter, both in their permanent winter villages and in their spring and summer habitations. The specific functions of the winter and seasonal-migration settlements, however, were markedly different.

Socio-Political Functions

The functions of the Lummi winter villages were primarily social as the Indians' subsistence was largely derived from the seasonal harvests of dried fish. The villages functioned as units for defense and as centers for the potlatch,[18] but there were "probably no other functions of the village as a whole."[19]

Within the Lummi villages, extended households were politically and economically autonomous. At the core of the social structure was the family with three or more generations often living in the family longhouse.[20] Sometimes referred to as "bands," the unit structure of the Lummis is best described as that of the extended family, as Suttles points out in the following passage:

> Each great house held several families, as we would understand the term, united by bonds of kinship--usually their heads were brothers or male cousins. Men usually took wives from outside the household, so each of these households were united by bonds of marriage. These bonds required the exchange of food and wealth and some ceremonial cooperation.[21]

Politically, there were no chiefs or tribes as there were east of the Rocky Mountains--"A few old Indians can tell you there were no chiefs until they were appointed by the missionaries and Indian Agents."[22] While an outstanding individual was often regarded as the "chief" of the village, he seemed to have been little more than the

man who organized the potlatch.[23]

The function of the household was probably no different when it was part of a community of longhouses from when it was housed in a building standing alone. The household function involved food preparation, weaving, and other activities assigned to the women, while to the men were assigned such duties as the building of houses, canoes, and wooden chests.[24] In addition, the house sometimes served as the center of religious ceremonies or other rituals of the family or village. However, the house as the center of food preparation was its most important function at both types of settlement sites. As Suttle notes, "The winter house was more than a dwelling; it was a workshop and factory for the preservation of food."[25]

In some instances, a specially-built house was the scene of the potlatch. In 1850, for example, Chowitsut, a recognized Lummi leader during the latter nineteenth century, had a large potlatch house near The Portage, which functioned as the center of those festivities. According to Haeberlin and Gunther, some Salish groups built houses to function only as the potlatch site and these were often much larger than the ordinary dwelling.[26] In almost all cases, however, a family home served as the potlatch site. Consequently, the potlatch house at The Portage must be regarded as somewhat of an exception among the Lummi villages.

Economic Functions

The basic function of the Lummi seasonal settlements was economic. Most of the time during spring, summer, and early fall the Lummis were actively engaged in fishing, although subsidiary groups moved about in search of other foods.

In March and April some of the Lummis would net herring spawn which they then used for trapping ducks. Favorite locations for this were on Lummi Island near Village Point and near Sandy Point.[27] A system was devised whereby the ducks were induced to dive for spawn and in so doing to become entangled in the nets and drown. The ducks were gathered and prepared by the women for eating locally while the feathers were kept for trade.[28]

In May the camas was in blossom and this was the time when the women and children would move about in search of the starchy bulb. Favorite camas beds were found on the several small islands in the San Juans already mentioned.[29] The Indians preferred to gather camas in soils which were thin and rocky as in those places the camas root did not grow deeply and could be easily pulled. Stern states that the Indians crushed the soil and replanted stems to ensure another crop.[30]

Closely following the bulb collection came the sockeye salmon runs in July and August. At this time, entire families would move to the fishing sites in the San Juans or along the coast. While the men were fishing, the women, when not drying the fish and preparing them for winter storage, moved about the adjacent countryside picking strawberries, gooseberries, blackberries, huckleberries, and other edible fruits.

In September the Lummis moved to clam beds on Birch Bay, Bellingham Bay, or other beaches near the fisheries. Those who were not fishing at weir sites on the Nooksack at this time, went into the forest and up the Nooksack River to hunt deer, elk, mountain goat, and other wild animals. Elk Swamp appears to have been a favorite hunting ground of the Lummis.[31]

By October most of the mainland villages were once again occupied by the Indians. During this month, several groups fished the Nooksack and its distributaries with the aid of weirs while others left by canoe to travel to Point Lawrence to fish for cod. Beaver, otter, mink, and other fur-bearing animals were trapped nearby. It can be seen, therefore, that the Lummis had a variety of economic activities with which to occupy themselves through much of the year.

Lummi Villages and Houses

The morphology of the Lummi village, it would appear, was influenced by such factors as the size of the community and its social structure; various house types and their arrangement; local physical factors; the need for protection; tradition; and the specific dictates of their economic activities. The nucleated villages maintained a

basic form of rectangular buildings in both winter and seasonal village settlements.

Nucleated Winter Settlements

The size of the nucleated winter villages and the number of houses in each, depended largely on the size of the extended family units living within the community. Some "villages" were made up of only one or two families--especially those villages near to weir sites--while others were much larger. Stern has concluded that the Lummi villages were normally made up of from five to twenty rectangular longhouses containing from one to two hundred people.[32]

The homes of the Lummis, however, were by no means all alike and their size and form varied as much as did the size and form of the villages. Some villages were made of large, segmented longhouses and others of small, unsegmented houses. Suttles distinguishes three different forms of Salish villages: those with one or more plank houses parallel to the beach; those with several small and scattered houses; and those with a solid row of houses which resembled a single building.[33] Stern on the other hand generalizes and describes the "typical" Lummi house as being "about sixty feet wide, comprising a varied number of sections each approximately sixty feet long."[34]

The alignment of Lummi village longhouses with the waterways, as established by both Suttles and Stern,[35] appears to have been a characteristic village arrangment of the Coast Salish generally.[36] The beach and the waterways were the major avenues of movement, the canoes being beached in front of the homes. A few larger villages had two or three rows of houses parallel to the beach with broad avenues between them. Stern explains that

> The villages in which the Lummi Indians live when they are not travelling in search of winter stores, are composed of a group of longhouses usually arranged in a single row along the waterfront, but at Gooseberry Point in the form of an L.[37]

An example of the single row of longhouses along the water front was the settlement at The Portage which was aligned with Bellingham Bay and composed of a large potlatch house and some smaller houses.

Suttles estimates the largest house--the potlatch house--to have been 400 feet in length.[38] Temporary camps, much like the winter villages in appearance, had a similar form to that described by Archibald Menzies in 1792.[39]

Of physical factors influencing village form, wind was perhaps the most significant in determining the positioning of the buildings. Winter houses were generally built where doors and other openings could be protected as far as possible from the cold northeasterly winds of winter and the rain-bearing southwesterlies.[40] Houses were for the most part built on well-drained ground and far enough away from the beach to escape damage by high tides. Normally, houses were not built in the midst of the forest, but in natural clearings along the beaches.
(Fig. 2)

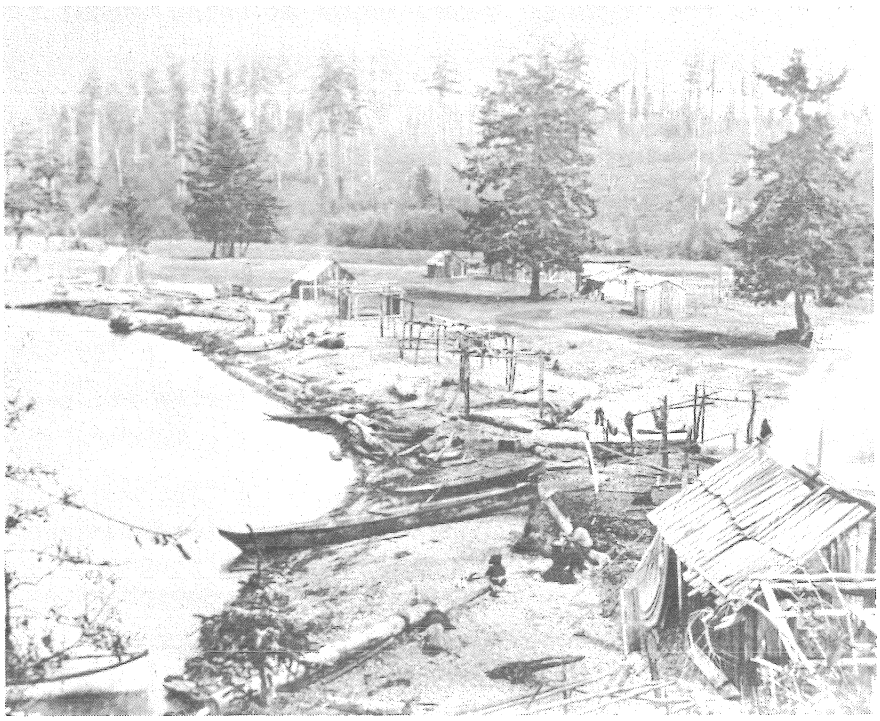


Fig. 2. Lummi Indian fishing camp. (Washington State Historical Society)

Suttles is of the opinion that the longhouse was a recent development of the Indians, built essentially for protective purposes. No evidence, however, has been found either to substantiate or to refute this conclusion. Stern has written:

> On the side of the house facing the water is an unimpeded entrance used by the occupants. A low fence about four feet high extends into the house from this entrance, and it is impossible to enter here without being immediately visible by everyone inside.[41]

Stern further explains that "entrance through the front doorway of the house is made difficult by obstacles" and that "pitfalls are generally placed beyond the high stumps impeding entrance."[42] It is likely that many Lummi houses had such design for protection against wild animals, as much as unwanted visitors.

Stern's description of the fortification at Gooseberry Point suggests that the longhouses were not built primarily for protective purposes, but rather that the entire village was fortified against attack. He points out that:

> The stockade was made from half logs seven and eight feet long set in a row on the ground, the top end sharpened in the form of a wedge. Long logs were grooved along one side and fitted over these wedged points, each top log forming a section which was braced inside by other logs. The sections were so arranged that the stockade was rectangular enclosing the entire village. This required many sections for the village had two large houses ten to twelve sections each, at right angles to one another. Tunnels with rocks over the top were dug at opposite corners of the stockade to points a short way out so that the entire stockade could be guarded by two men at these lookouts. There was a large pole in the center of the enclosure for hoisting a pitchwood torch to give light in the case of night attack. They perfected the light so they could see a dog from a distance at night. A plank was planted along the trail to the spring water directly in back of the stockade with sharp bone spikes protruding to hamper the enemy during attacks and to catch anyone seeking to poison the water supply. In the daytime, the spikes were fixed so that the villagers would not be hurt, but every night they were set again.[43]

According to Stern, this fortification was built for protection from the Yeqwaltax of northern Vancouver Island who had learned the use of, and acquired guns from the Russians.[44] Whether or not the form

was typical of other Lummi fortified settlements, its occurrence among them indicates the influences of warfare on Lummi village form.

The L-shaped settlement at Gooseberry Point, an anomaly as far as Lummi village form is concerned, deserves further mention because of its unique layout and the social implications involved in its form. In Lummi legend and lore an account is given of the construction of the first L-shaped house in the San Juans which was named Twlolames:

> Qokwaltxw had the house torn down and moved to Sandy Point on the northern part of Lopez Island. When he arranged it in line with the buildings of that village it was too cramped. He then placed the house at right angles with the original buildings and made it the home of his daughter. This part of the village was thereafter called Twlolames "facing one another" from which the name Lummi is derived.[45]

The account goes on to state that the daughter was married to a man from a wealthy family on Lummi Island, and that later, when they moved to Gooseberry Point, they used their inherited privilege and built a house in the shape of an "L" like their family's Lopez Island structure. The later structure at Gooseberry Point was called Temxiqsan.

Nucleated Seasonal Settlements

At the beginning of each seasonal migration a non-permanent dwelling of reed mats, bark, planks, and other materials was built. Cedar planks were often carried from place to place for use as roofing material. The structure, usually rectangular in shape, was easily erected and just as easily disassembled, except in the case of a few houses which were constructed in nearly the same way as the winter longhouses. Barnett says of the Coast Salish, "Where the conditions were favorable, the largest and wealthiest families built permanent frameworks at their camp grounds which they covered with either planks or bark."[46] Many of the summer dwellings were in the form of a teepee; slender poles were tied together at the top and covered with reed mats or other materials.[47]

The fishing villages of the Lummis were arranged in similar fashion to the winter villages, that is in a row parallel to the shore nearest the fisheries. One of the few descriptions of an Indian

fishing camp--used by the Lummis as well as other groups--was written by Archibald Menzies in 1792. Menzies writes:

> When they left the Ship on the Morning of the 12th they first explored a large shoal water Bay till they came to a conspicuous White Bluff of a moderate height forming the western point of it and which afterwards obtained the Name of Cape Roberts. Here they landed to dine near a large deserted Village capable of containing at least 4 or 500 inhabitants, tho it was now in perfect ruin--nothing but the skeletons of the houses remained, these however were sufficient to show their general form structure and position. Each house appeared distinct and capacious of the form of an oblong square, and they were arranged in three separate rows of considerable length; the Beams consisted of huge long pieces of Timber placed in notches on the top of supporters 14 feet from the ground, but by what mechanical power the Natives had raised these bulky beams to that height they could not conjecture. Three supporters stood at each end for the longitudinal beams and an equal number were arranged on each side for the support of smaller cross beams in each house.[48]

Stern, describing an island fishing-camp home and its arrangement, says that it was

> . . . constructed of roofing planks arranged over a rectangular frame supported by poles. The walls of the house are made of large mats carried along for this purpose. The leader or captain of the fishing party dwells at the front end of the house while other men of the party and their wives occupy sections according to the seating arrangement in the canoes.[49]

Other than the influences of site locations at or near important fisheries, there appear to have been no other major physical or cultural factors which influenced the seasonal settlements other than those factors already mentioned in the discussion of winter villages and their form. Suttles suggests, however, that summer settlements were usually located on rocky slopes facing the sun in order to dry the fish.[50]

House Types

Various house types have been identified as typical of Lummi

Indian settlements. These include shed-roof, gable-roof, and lean-to or hip-roof houses as the most common types. All appear to have made their appearance early enough, with the possible exception of the lean-to, to have antedated any influences of American form on them.

Shed-roof houses were characterized by a one-pitch roof which slanted from one side approximately fourteen feet high to another ten feet high. The roof was covered with overlapping boards which were sometimes grooved to allow for better drainage. The roof boards were moveable near the center and top to let the smoke out and the sunlight in. The walls, made of split cedar, were most often placed horizontally between vertical poles and fastened to the latter with cedar ropes.[51] Some houses, however, had walls of vertical siding, as in the example in Figure 3.

Fig. 3. Remains of a Lummi Indian shed-roof house at Old Lummi Village circa 1945. Note the vertical siding, pitch of the roof, and entrance. (Jeffcott Collection)

The interior of the shed-roof house was divided not by partitions but by house posts which marked off each of the family sections. Benches were built around the interior walls and these were used as bed platforms at night. Above the benches were shelves where food and other items were stored. Underneath the sleeping platforms firewood was stored. The walls and benches were covered with rush mats. Each family usually had a fire in its own section, although some houses had a central fire which was shared by all occupants.

Gable-roof houses were often found in the same settlements as the shed-roof houses and had an interior arrangement similar to that of the latter. Building materials were basically cedar. Hawley describes one such Lummi house as having been constructed of cedar boards sixteen to twenty inches wide, sixteen to twenty feet long, and one and one-half to two inches thick. The house, which was provided with three fireplaces, was approximately forty feet square.[52]

The last longhouse at Old Lummi Village to be occupied was a gable-roof house comparable in form to other gable-roof houses of the Lummis. Mrs. Julius Charles in describing it noted that:

> It was not made of native materials; the walls were of milled lumber and the gabled roof of shakes. As in the other big houses, the floor was just the earth under it. The ridge-pole was held up by a post at each end with perhaps one in the centre. These and the posts along the walls were neither painted nor carved. Around the walls ran a bed-platform about the width of a modern double bed and at about the same height around the walls overhead ran a storage shelf. Mats lined the walls, and mats could be used to construct partitions between family sections.

She went on to say:

> Seven families stayed in this house. Each had its own section and its own fire. Two square holes in the roof allowed the smoke to escape. Each family stacked its bedding on the bed-platform, and stored its provisions, including dried fish, on the shelf above. The door was at the north end, and the corner to its left as you entered was Jim Eldridge's section. This was the section appropriate to the owner of the house . . . The family sections in such a house were designated as "first," "second," "third,": etc., beginning with the section at

> the left of the door as one looks in and continuing around in a clockwise direction. This house had three sections on each side and one at the end opposite the door.[53]

Figure 4 shows such a gable-roof house constructed by the Lummis. It should be noted that the house made use of a roof of overlapping planks and had vertical siding. It is possible that this house was used exclusively as a smokehouse during the fishing season.

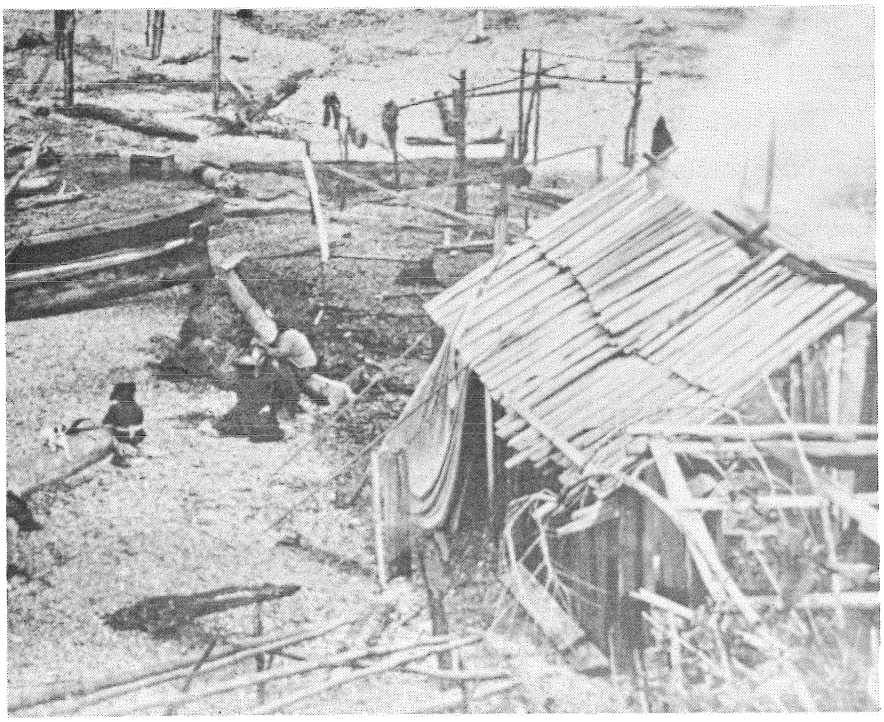


Fig. 4. Gable-roof Lummi Indian house. (Washington State Historical Society)

The arrangement of posts, doorway, benches and firepits is shown in the following diagram:

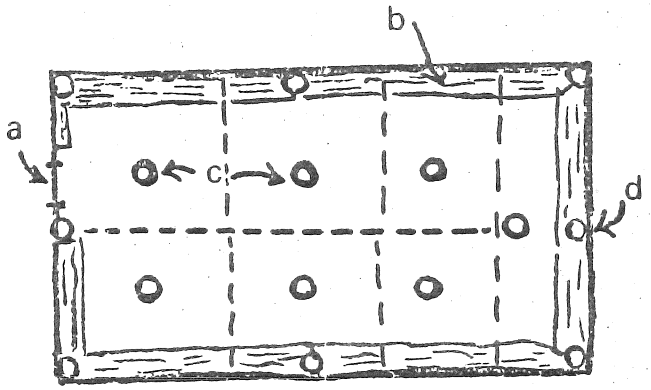


Figure 5. Arrangement of interior of Jim Eldridge's gable-roof house, Old Lummi Village, circa 1880.

A. Entryway
B. Benches and bed-platforms
C. Fire pits
D. Supports for ridge-pole

SOURCE: Suttles, "Post-Contact Culture Changes," p. 61, description by Mrs. Julius Charles.

Waterman and Greiner found a third style of house among the Puget Sound Indians--the lean-to or hip-roof house.[54] In many ways, the construction of such a house was not too different from the types just discussed, apart from the addition of a lean-to all round or at least on one side of the house. The only Lummi house of this style known, and photographed as "a typical Indian home near Bellingham, Washington," could conceivably have been influenced by American architectural styles and therefore an example of the modification of native housetypes rather than an

example of a native form of house. (Figure 6)

Fig. 6. Lean-to or hip-roof Indian house.
(Whatcom Museum of History and Art)

Few such hip-roof houses appear to have been found among the Puget Sound Indians; this particular early photograph shows few indications of the influence of native form and materials apart from the large smoke hole in the top which is typical of earlier houses. It is possible that this house was located at Old Lummi Village, although its exact location is unknown.

Later Lummi houses show the influence of American culture on form and materials. Small houses made of milled lumber and native split-cedar were commonly found in Indian settlements. Each usually housed only one family.

Fig. 7. Indian house made of milled and native split-cedar. (Whatcom Museum of History and Art)

Analysis of Lummi Settlements

Beardsley and his associates have identified seven "community patterns of a nucleated nature." These patterns are:

1. Free Wandering
2. Restricted Wandering
3. Central-Based Wandering
4. Semi-Permanent Sedentary
5. Simple Nuclear Centered
6. Advanced Nuclear Centered
7. Supra-Nuclear Centered[55]

Drawing conclusions from the previous discussion of the distribution, functions, and morphology of Lummi settlements, it would seem that the Lummis best approximate to the third group: the central-based wandering community. This is defined as "a community that spends part of each year wandering and the rest at a settlement or 'central base' to which it may or may not consistently return."[56]

The Lummi settlement pattern consisted essentially of a number of nucleated family villages, with vaguely-defined territories assigned to each group. To define the territory of all Lummi Indians, it would be necessary to include the family villages and their hunting, fishing, and gathering grounds. The nucleated family villages may be defined as the Lummis' "central base."

Beardsley explains that the half-sedentary, half-wandering pattern shows adjustment to one of several types of subsistence: 1) a preservable or storable wild food harvest; 2) a locally abundant food, such as salmon or shellfish; and 3) an "incipient producing" of a small harvest.[57]

The Lummi pattern was greatly influenced by the fresh fish and shellfish supply as well as their ability to preserve it, "an adjustment to special conditions where wild foods are unusually productive or can be converted to storable surpluses."[58] The addition of camas and berries helped supplement a basically high-protein, fish diet.

During the spring and summer months, portions of extended family units or sometimes entire groups congregated in settlements near favorite fisheries and sources of various other wild foods. At this time they often came in contact with neighboring tribes such as the Samish or the Semiahmoo, or they camped with Lummis from other extended family villages at the same sites. Even though the settlements at these sites were composed of fragmented groups from various villages, the general pattern was still that of the nucleated settlement.

Beardsley has found that in its sedentary aspects the community of the central-based group was fairly cohesive, "but when the season for wandering begins it frequently breaks into smaller segments composed of individual extended or even nuclear families, which become economically self-sufficient."[59] He goes on to say that after migratory movements they may or may not return to their former winter-village sites, and that they sometime will align themselves with another family at a different base;[60] this was also the case with the Lummis.

The Modification of Settlement After 1850

A number of socio-political and physical factors helped modify Lummi settlement after the arrival of American settlers in Whatcom County. Among these factors should be considered treaties with the United States government; cross-cultural contacts; early Lummi-white relations including those with white missionaries, Indian Agents and traders; and problems encountered due to the flooding of the Nooksack River. Although these are grouped together, it should be noted that each exerted its influence sporadically and at different periods. Consequently, it is best to deal with them in chronological order.

The Point Elliot Treaty, 1855

January 22, 1855 is an important date in the Indian history of Western Washington for on that day representatives of various Puget Sound Indian groups met with Territorial Governor Isaac I. Stevens to ratify a treaty. The treaty proposed was an attempt by the American government to limit Indian territories and to open Washington for free and orderly settlement. The treaty, signed by Chief Chow-its-hoot in behalf of both the Lummis and the Nooksacks, prescribed what lands would be set aside for Indian settlement and development. The largest portion of land in Western Washington, however, was to be relinquished to the American government, and hence, as Buchanan puts it, "By that treaty the Indian title to an empire was extinguished . . . ."[61]

The area in Whatcom County delimited as an Indian reserve, primarily for the Nooksacks and the Lummis, was "an island called Chah-choo-sen, situated in the Lummi River at the point of the separation of the mouths emptying respectively into Bellingham Bay and the Gulf of Georgia."[62] The President of the United States reserved the right to remove all Indians from this reservation if the need arose, or make further provisions for Indian settlement or concentration. The Lummis were allowed to fish at their reef-net sites in Puget Sound waters, but were restricted in their gathering activities on the lands of the "citizens."

The Point Elliot Treaty led to modification of existing Lummi settlement, restricted Indian movement, and influenced all future

Lummi settlement. Although most of the Lummis were living within the area defined by the treaty, some groups were established on the eastern shore of Bellingham Bay and near the southern end of Lake Whatcom.

Although the Lummi Reservation was large, as compared to other Indian reservations in Western Washington, the provisions of the Point Elliot Treaty were to have far-reaching effects on Indian settlement in the Nooksack Lowland, especially among the Nooksacks.

The Federal government's interpretation of "tribal" units had the effect of nearly destroying tribal culture and obliterating all traces of Nooksack settlement. While the territorial rights of the Nooksack Indians had been signed away by Chow-its-hoot--a Lummi--the Lummis were able in large part to maintain their original settlements and tribal lands, as well as a good many of their fishing grounds.

Lummi-White Relations in the Late 1850s

During the Fraser gold rush of 1858 and 1859 the Lummis were encountered by thousands of miners who stopped on the shores of Bellingham Bay en route to the gold fields. These miners bought dried fish and Indian canoes from the Lummis. Without thinking of the consequences, the Indians readily sold both canoes and fish which led to various problems. In 1858 Whatcom's newly-established (and short-lived) newspaper, The Northern Light, reported the warning given by Major M. T. Simmons, the Indian Agent, to the Lummis assembled at Whatcom:

> As soon as the salmon come, I want you to go to work and dry as many as you can. You know how hungry you were last winter, because you know you had no salmon. . . I understand that many of you have sold your canoes; I am sorry for it; you have been very foolish to do so. How do you intend to get your fish without canoes? You must not sell any more of them.

Simmons went on to say:

> If you will take my advice, you will move your houses from among the whites, to the other side of the bay. When you have any berries or fish to sell, come and sell them and go home; then you will not be tempted to buy rum with your money.[63]

When during the summer of 1858, two white men were found murdered on Lummi Island the Lummis were suspected of the foul deed. However, in the absence of any conclusive evidence, little could be done about the murders. On September 4, 1858, a headline reading "Capture of Indian Murderers" was run in the Northern Light. In the article, which smoothed over the previous story and mentioned that no Indian suspects were captured, it was reported that "the sudden exodus of Indians from Whatcom and vicinity, was in obedience to an order from Colonel Simmons to that effect. They have repaired to their several fishing grounds."[64]

Most contacts between the Lummis and the American settlers had been peaceful; the September 4, 1858 article in the Northern Light gives no indication of the amicability of the earliest relationships. The Indians who moved from Whatcom at Simmon's request had no recourse but to stay, as the Treaty of Point Elliot had already established the boundaries of tribal area. They could have been forcefully removed had the need arisen, but there were few Lummis living in the vicinity of Whatcom.

Among major recurrent problems of the time were the groups of northern Indians from Vancouver Island and coastal British Columbia who raided both Lummi and American settlements. In 1854 there were renewed raids upon the people of Bellingham Bay, and in the winter of 1855-56 a blockhouse was built for the protection of American settlers.[65] Many Americans had a general fear of all Indians and they made no distinction between the Lummis and the more warlike bands of Indians from the north. The Indian problems of 1858 and 1859 appear to have been--in part, at least--the results of conditioned American thinking about Indians with whom they had previously come in contact, or about whom they had heard stories.

Missionaries and Indian Agents

Despite epidemics, tribal warfare, gold-rush migration and early contact with white settlers, the major Lummi villages were able to maintain their traditional form and settlement pattern. In 1861, Father Chirouse, a Catholic missionary, established a chapel on the right bank of the Nooksack near its mouth. His influence on

the Lummis was to be far reaching. Around the chapel a settlement grew, later to become known as Old Lummi Village. At this location, C. C. Finkbonner established himself as resident farmer of the Indian agency. The Lummis were encouraged to build at Old Lummi Village by both the resident farmer and the priest, and perhaps for mutual protection from the northern raiders.[66]

The settlement assumed a typical linear pattern. In 1867 Finkbonner reported:

> The Indian town and agency is built at the mouth of the main branch emptying into Bellingham Bay and contains sixty good substantial board dwellings, with floors, windows, shingle roofs and chimneys. There is also one church twenty-four by forty-five feet, besides a number of larger buildings, made out of hewn and split cedar trees. These are used by the old Indians, and for drying and smoking their salmon. All of these buildings have been put up with Indian labor, and my assistance.[67]

Through the late 1870s Old Lummi Village was reported to have retained its linear pattern. In the middle of the village was the chapel; upstream on the right bank were four large longhouses in a row parallel to the river; downstream on the right bank were the American-style houses. There was also a store, which was moved to Marietta in 1879, and in 1880 a school house and a teacher's residence were built. In front of the store was a ferry landing.[68]

Modification of the Reservation Boundary

Until 1873 the unpredictable Nooksack River caused boundary problems due to its tendency to meander and flood. Ratified in 1859, the Point Elliot Treaty had established a reserve for the Lummi and Nooksack Indians, but because of boundary problems a new document had to be drawn up. On November 22, 1873 the Lummi Reservation was established by executive order of President Ulysses S. Grant and the boundaries clarified. It read:

> It is hereby ordered that the following tract of land in Washington Territory be withdrawn from sale and set apart for the use of the D'Wamish and other allied tribes of Indians, viz: Commencing at the eastern mouth of the Lummi River; thence up said river to the point where it is intersected by the line between

sections 7 and 8 of the Wilamette meridian; thence due north on the said section line to the township line between townships 38 and 39; thence west along said township line to low-water mark on the shore of the Gulf of Georgia; then southernly and easterly to the place of the beginning; so much thereof that lies south of the west fork of the Lummi River being a part of the island already set apart by the second article of the treaty with the D'wamish and other allied tribes of Indians, Made and concluded January 22, 1855.[69]

Fig. 8. "Chief" Kiwina, John McGlinn, Indian Agent, B. N. McDonough, and others during the '70s. McDonough's trading post is in the background and was located at Marietta. Kiwina was "Chief" of the Lummis from approximately 1876 to 1926. (Roth, History of Whatcom County, p. 56) (Jeffcott Collection)

The Destruction of Old Lummi Village

About 1888 a log jam near the mouth of the Nooksack River closed the river to navigation and caused it to flood. In the path of the river as it sought a new channel was Old Lummi Village and in assuming its new course it washed out a majority of the homes. The main channel thus bypassed Marietta, which had been at one time on its left bank, and entered the bay near Fish Point.[70]

The destruction of Old Lummi Village by the flooding of the Nooksack greatly changed any social or political cohesion which might have grown between the village, the mission, and the Indian agency. The church, once the focal point of the community, had to be moved to higher ground. A site northwest of the old village was chosen for this. Most of the inhabitants, however, moved their homes to Fish Point. Thus the brief period of concentration at Old Lummi Village came to an end.

NOTES

[1]Stern, The Lummi Indians, pp. 43-47.

[2]Suttles, "Post-Contact Culture Changes," p. 39.

[3]Stern, The Lummi Indians, p. 7.

[4]Suttles, "Post-Contact Culture Changes," p. 53.

[5]See Suttles, "Post-Contact Culture Changes," p. 42. Suttles relies on calculations of the loss of Indian life due to small-pox provided by James Mooney in The Aboriginal Population of America North of Mexico (Washington, D.C.: Smithsonian Institution, "Miscellaneous Collections," 80, No. 7, 1928). Suttles also explains that native traditions corroborate Mooney's findings and that the later epidemics of 1852 and 1862 were probably less severe than that of 1782.

[6]Hermann Haeberlin and Erna Gunther in The Indians of Puget Sound (Seattle: University of Washington Press, 1930), p. 12, identify the northern raiders as being primarily the Haida and Tsimshian who plundered villages and acquired slaves in the Puget Sound area.

[7]Suttles, "Post-Contact Culture Changes," p. 53.

[8]Stern, The Lummi Indians, p. 101.

[9]For example, see Marian W. Smith, "The Coast Salish of Puget Sound," American Anthropologist, 43 (April and June 1941), p. 197; Haeberlin and Gunther, Indians of Puget Sound, p. 15; and Ruth Underhill, Indians of the Pacific Northwest (Washington, D.C.: U.S. Department of the Interior, Indian Affairs, 1945), p. 74.

[10]Suttles, "Economic Life," p. 34.

[11]Smith, "The Coast Salish," p. 201.

[12]Fishing camp locations are from Stern, The Lummi Indians, map op. p. 125 and Suttles, "Economic Life," p. 201.

[13]Smith, "The Coast Salish," p. 201.

[14]Suttles, "Economic Life," p. 200.

[15]Albert B. Reagan, "Archeological Notes on Western Washington and Adjacent British Columbia," Proceedings of the California Academy of Sciences, VII, no. 1 (July 18, 1917), p. 24.

[16]Harland I. Smith and Gerard Fowke, "Cairns of British Columbia and Washington," Memoirs of the American Museum of Natural History, a publication of the Jesup Expedition, Vol. 4, Part 2 (January 1901), pp. 55-75.

[17]Stern, The Lummi Indians, p. 50; Suttles, "Economic Life," p. 78.

[18]The potlatch is a custom of the Pacific Northwest coast Indians which has gained much attention from anthropologists in their attempts to understand Indian culture. For further information on the potlatch, see Stuart Piddocke, "The Potlatch System of the Southern Kwakiutl," Southwestern Journal of Anthropology, 21 (Autumn 1965), pp. 244-64; H.G. Barnett, "The Nature of the Potlatch," American Anthropologist, 40 (1938), pp. 349-58; and Wayne Suttles, "Affinal Ties, Subsistence, and Prestige among the Coast Salish," American Anthropologist, 62 (1960), pp. 296-305.

[19]Suttles, "Economic Life," p. 277.

[20]Stern, The Lummi Indians, p. 7; Suttles, "Post-Contact Culture Changes," p. 33.

[21]Suttles, "Post-Contact Culture Changes," p. 33.

[22]Ibid.

[23]Suttles, "Economic Life," p. 277.

[24]Stern, The Lummi Indians, pp. 88-96.

[25]Suttles, "Economic Life," p. 259.

[26]Haeberlin and Gunther, Indians of Puget Sound, p. 60.

[27]Suttles, "Economic Life," p. 78.

[28]Although the mallard was the most common duck, scooters and sawbills were more highly prized by the Indians. For a list of various birds commonly hunted by the Indians of Western Washington and Oregon, see Underhill, Indians of the Pacific Northwest, pp. 48-49.

[29]Suttles map in "Economic Life," shows no important camas beds on the mainland.

[30]Stern, The Lummi Indians, pp. 42-43.

[31]Stern, The Lummi Indians, p. 50 and Suttles, "Economic Life," p. 78. In 1791, the Spanish explorer Narvaez anchored near Cherry Point and learned of the abundant elk near Lake Terrell from the Indians. See J.S. Matthews, "Narvaez, 1791," Vancouver Historical Journal, no. 4 (January 1961), pp. 1-109.

[32]Stern, The Lummi Indians, p. 7.

[33]Suttles, "Economic Life," p. 276.

[34]Stern, The Lummi Indians, p. 31.

[35]Suttles, "Economic Life," p. 38 and Stern, The Lummi Indians, p. 31.

[36]For example, see Haeberlin and Gunther, Indians of Puget Sound, p. 15 and Underhill, Indians of the Pacific Northwest, p. 74.

[37]Stern, The Lummi Indians, p. 31.

[38]Suttles, "Economic Life," p. 38.

[39]The camp described by Archibald Menzies in June, 1792, was located at "Cape Roberts" (Point Roberts). A full description of the village is given below. Menzies, whose accounts were published as Menzies' Journal of Vancouver's Voyage, adds additional information not mentioned by Vancouver. See "Menzies' Journal of Vancouver's Voyage, April to October, 1792," ed. C. F. Newcombe, Archives of British Columbia Memoir, No. 5 (Victoria, British Columbia, 1923), pp. 1-132. Other early comments on the Whatcom County coast and its Indian population are found in Edmond Meany's Vancouver's Discovery of Puget Sound (Portland, Oregon: Binfords & Mort. 1957).

[40]Suttles, "Economic Life," p. 46; Underhill, Indians of the Pacific Northwest, pp. 48-49.

[41]Stern, The Lummi Indians, p. 31.

[42]Ibid.

[43]Ibid., p. 101.

[44]Stern, The Lummi Indians, p. 100.

[45]Ibid., pp. 107-108.

[46]H. G. Barnett, Underground Houses on the British Columbian Coast," American Antiquity, 9, no. 3 (1944), p. 39.

[47]Roth, History of Whatcom County, I, 967.

[48]Newcombe, Menzies' Journal, p. 60.

[49]Stern, The Lummi Indians, p. 43.

[50]Suttles, "Economic Life," p. 46.

[51]Stern, The Lummi Indians, p. 31.

[52]Hawley, Skqee Mus, p. 45.

[53]Suttles, "Post-Contact Culture Changes," p. 61.

[54]T. T. Waterman and Ruth Greiner, Indian Houses of Puget Sound (New York: Museum of the American Indian, 1921), p. 21.

[55]Richard K. Beardsley et al, "Functional and Evolutionary Implications of Community Patterning," in Readings in Cultural Geography (Chicago: University of Chicago Press, 1962), eds. Phillip L. Wagner and Marvin W. Mikesell, pp. 376-98.

[56]Beardsley, "Community Patterning," p. 381.

[57]Ibid.

[58]Ibid.

[59]Beardsley, "Community Patterning," p. 381.

[60]Ibid.

[61]Charles M. Buchanan, Superintendent of the Tulalip Indian Agency, Washington, distributed a typewritten paper circa 1905 entitled "Tulalip Agency and School." In it he discusses the Point Elliot Treaty and the Tulalip Reservation. Pacific Northwest Files, Mabel Zoe Wilson Library, Western Washington State College.

[62]Roth, History of Whatcom County, p. 976.

[63]Northern Light, July 24, 1858.

[64]Northern Light, September 4, 1858. It appears that Simmons was raised in rank from Major to Colonel during this period.

[65]Edson, The Fourth Corner, p. 9.

[66]Suttles, "Post-Contact Culture Changes," p. 59.

[67]Finkbonner is quoted in Suttles, "Post-Contact Culture Changes," p. 55.

[68]Suttles, "Post-Contact Culture Changes," p. 61 and Albert B. Reagan, "Archaeological Notes on Western Washington and Adjacent British Columbia," Proceedings of the California Academy of Sciences, VII, no. 1 (July 18, 1917), p. 25.

[69]Roth, History of Whatcom County, p. 975.

[70]Reagan, "Archaeological Notes," p. 25.

CHAPTER III

NOOKSACK INDIAN SETTLEMENT

Introduction

The Nooksack Indians had closer cultural ties with the riverine Indian groups of British Columbia than with the Lummis or other Puget Sound Salish groups. Their culture has been traced to the Indian culture region of the Thompson and Middle Fraser rivers, primarily through linguistic similarities and house-types. Pit dwellings were associated with early Nooksack settlements and this feature has led to their being classified with the pit-house groups which were found among the more northern riverine Indians of British Columbia and the Musqueam band located near Vancouver, British Columbia.[1]

Other evidence of cultural connections includes that of the specialized fish net found among the Nooksacks. In an archaeological survey of several sites in the Nooksack Lowland it is recorded that " . . . the complex Thompson dip-net, along with more general items of material culture, have their counterparts in the collection from the Nooksack Valley."[2] It is also believed that

> In aboriginal times, the Nooksacks had imported grass from which they made their fish nets from the Thompson westward along the same route later used for the introduction of White influences.[3]

The Nooksacks carried on trade with the Sumas, Chilliwack, and Matsqua bands of British Columbia, as well as with the Hudson's Bay Company at Fort Langley on the Fraser River. Consequently, many well-defined trails led northward.[4] The Nooksacks also traded--though less extensively--with their neighbors to the south and west, the Semiahmoo, Lummi, and Skagit.[5]

The Distribution of Settlements

Historically, the Nooksack Indian territory included the major part of the Nooksack Lowland. Indian settlements were concentrated

near the present sites of Lynden and Everson, and at the Forks of the Nooksack River. If one were to include the region in which they conducted their gathering and hunting activities, the extent of the territory would be seen to include all of the area upstream from the present site of Ferndale to the sources of the three major tributaries of the Nooksack in the Cascade Mountains. Important trading routes radiated from these major settlements--north to British Columbia, west to Birch Bay, and southwest to Bellingham Bay.

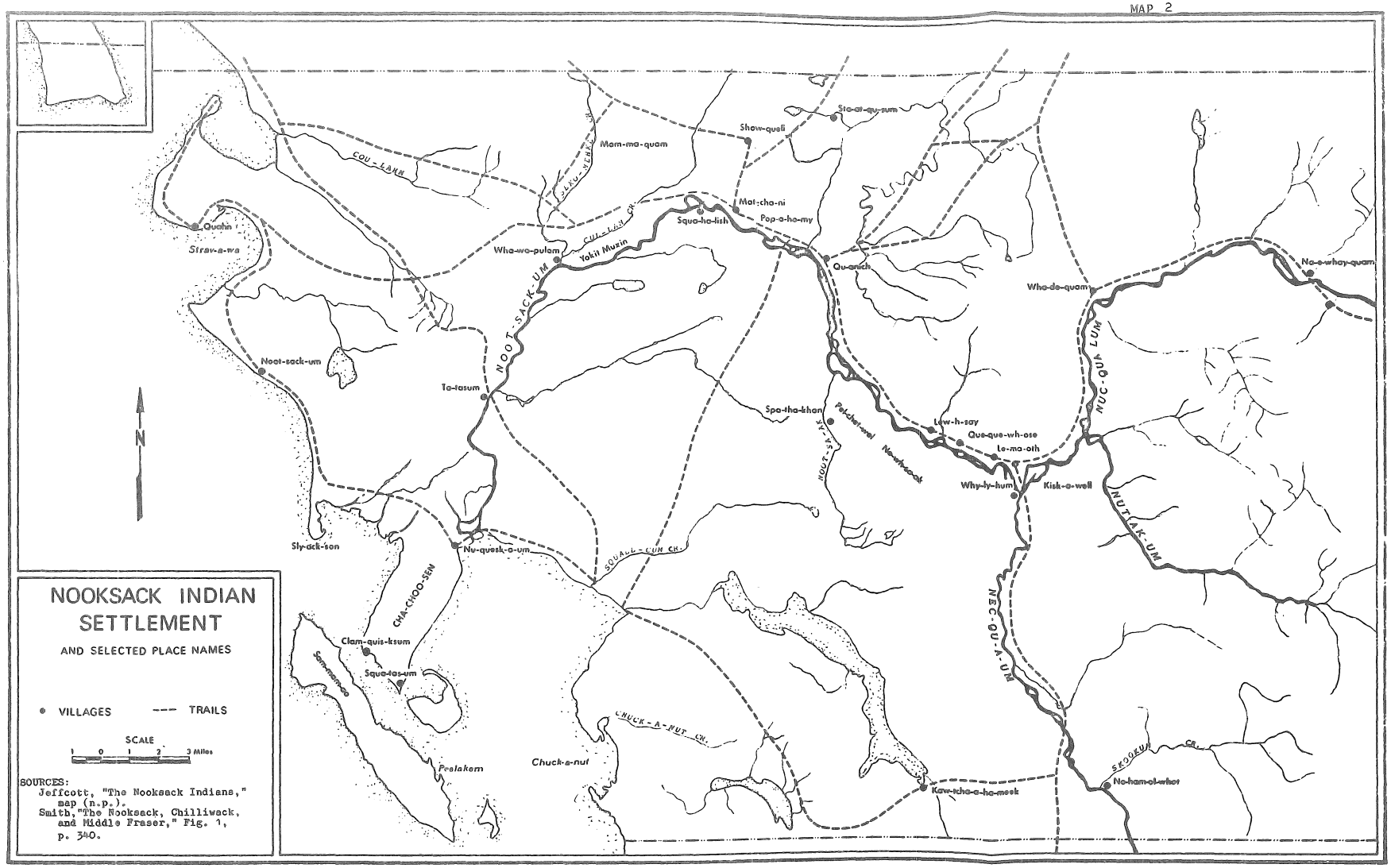
There is no evidence of any marked seasonal movement of the Nooksacks to fishing sites along coastal waters as was the case of the Lummis. Hence the distribution of villages remained relatively static through most of the year. Whatever temporary shelters were established were primarily associated with the Nooksacks' occasional excursions to clam digging sites on Birch Bay or Bellingham Bay and upstream along the three major tributaries of the river for wild game. These wild foods were irregular supplements to a generally abundant supply of salmon netted or trapped in adjacent streams, and vegetables harvested near the permanent villages.

When the first Americans entered the Nooksack Lowland in the late 1850s, they early ascertained that there were three major bands of Nooksacks, each with a "chief" in charge of the three major settlements.[6] The settlements were known as Squa-ha-lish (Lynden), Pop-a-ho-my (The Crossing), and Kisk-a-well (the Forks of the Nooksack).[7] According to Jeffcott:

> The chief center of this native population, from which the others seemed to radiate, was that part of the river marked by the confluence of Nook-sa-ak (Anderson) Creek and the river, a short distance north of present Goshen.[8]

Smith has located eight Nooksack villages along the Nooksack and its tributaries, all of which correspond to locations cited by Jeffcott. One village, located on a prairie between Lynden and Ferndale on the right bank of the river, was believed to have been abandoned when the Nooksack group moved to the Lummi Reservation at the request of the Catholic priest. Smith has established that other villages were located near Lynden, Everson, Goshen, and at

MAP 2


NOOKSACK INDIAN SETTLEMENT
AND SELECTED PLACE NAMES
VILLAGES
TRAILS
SCALE
1 0 1 2 3 Miles
SOURCES:
Jeffcott, "The Nooksack Indians," map (n.p.).
Smith, "The Nooksack, Chilliwack, and Middle Fraser," Fig. 1, p. 340.
N
COU-LAHM
Mam-ma-quam
Show-quali
Ste-al-qu-sum
Mat-cha-ni
Squa-ha-lish
Pop-a-ho-my
Quahin
Straw-a-wa
Wha-wo-pulam
Yakit Muxin
Qu-anch
Wha-de-quam
Na-a-whay-quam
NOOT-SACK-UM
NUC-QUI LUM
Noot-sack-um
Te-tasum
Spa-tha-khan
Pel-chet-sen
Low-h-say
Que-que-wh-ose
Le-ma-oth
Why-ly-hum
Kisk-a-well
NUTLAK-UM
Sly-ack-son
Nu-quesk-a-um
SQUAHL-LUM CK.
CHA-CHOO-SEN
NEC-OU-A-UN
Clam-quis-ksum
Squa-tas-um
Sam-mam-co
Pealakem
Chuck-a-nut
CHUCK-A-NUT CK.
Kaw-tcha-a-ha-mesk
SFOOKUM CR.
No-ham-at-whot

Deming "at the upper side of the fork," as well as several smaller villages at Lawrence, at the mouth of Canyon Creek near the Forks, and near Acme on the South Fork.[9] (See Map 3)

Closely associated with the settlements were large communal smokehouses, the centers of the Indians' economic activities during the fish runs. Some were inhabited during the fish season, others were not. According to Jeffcott, major smokehouses were located near Lynden on Fishtrap Creek; east of Lynden on Worthen Creek; at Qu-anich (Everson); near Goshen where Anderson Creek enters the Nooksack; at Dep-dap-y (Nugent's Bridge, south of Lawrence); and at the Forks.[10]

Important leaders in the early 1870s were Indian Jim Yelokanim (or Lynden Jim) who lived on the left bank of the Nooksack near Lynden; Tyee George, who lived near The Crossing and "ruled" from there to Deming; and Hump-cha-lem, who "ruled" the upper rivers and lived near the Forks.[11]

Smaller family units were located in the forests near the river and were later referred to as the "stick-Siwash." Fitzhugh in the 1850s estimated the total number of Nooksacks at 450.[12]

Village Functions

The societal organization of the Nooksacks and an economy based on fishing were the major factors that influenced the nucleated settlement pattern of the tribe. Nooksack villages were similar to those of Salish groups in that they were autonomous. There is little evidence that the cluster groups of the Nooksacks were as large as those of some of the Lummi villages which were believed to have contained as many as 200 people.

Socio-Political Functions

Most often, the Nooksack settlements were composed of small family groups which were politically and economically independent of one another. The largest recorded Nooksack extended family settlement was a longhouse habitation near the present site of Goshen which measured approximately 500 feet in length. It might

conceivably have contained as many as 100 inhabitants.[13]

As part of their socio-political function, periodically the groups would gather at a smokehouse (also referred to as a council house) to "listen to the advice of their leaders [and] engaged in the various dances and ceremonies peculiar to their tribes."[14] Some smokehouses were part of the village structure, but most were separated from the village and located near the fishing sites. As with the Lummis, the "chief" was a recognized leader because of his wealth or status; other leaders were recognized for their healing or spiritual powers and were referred to by Americans as "medicine men" or "Witch Doctors."[15] Although there appeared to be a group of leaders, or chiefs, the head of each household played an independent role. After ceremonies or special gatherings, each family would return to its own home and village and perhaps not come in contact with the others for several months.

Another socio-political function of the family group was the potlatch; the smokehouse generally served as the center for this gathering. This was an important occasion for family and tribal interaction. Surplus wealth was distributed to friends and visitors from British Columbia, the Lummi group, and others. Jeffcott says of the potlatch:

> Born of some not well understood urge peculiar to the Indians, the potlatch was an ancient custom among them; it did not seem to have been the spontaneous result of a desire on the part of a Tyee or other important individual to hold his prestige before the eyes of his less fortunate tilakums.[16]

In some instances, a wealthy man would own his own smokehouse which he not only used for potlatches, but which he would share with others during the fish runs.

The nucleated family group's functioning autonomously but taking part in special meetings or potlatches was, therefore, the major socio-political function of the Nooksacks. At times, however, various families shared communal smokehouses and fishtraps. Although closely connected with the economic function of the community, the communal nature of these activities differentiates the Nooksacks

from the Lummis. Both Hawley and Phoebe Judson have written of the communal nature of the fishtrap and smokehouse. Judson says of the fish trap and "dry house" near Lynden:

> . . . the Indians had constructed a large fish trap and an immense dry house for safe keeping, as they have a superstition that the spirit of the fish dwells in the backbone and returns to the salt water to lure other salmon to their traps . . . Often thousands of these 'hooked nose' salmon (the Indians' favorite fish) were to be seen lying in heaps on the banks near the traps. . . This trap was community property, each Indian helping himself to fish, as he desired, and when the white settlers began to come in the Indians freely gave them the privilege of choosing what suited them best, and all they wanted.[17]

Hawley states that, at the smokehouse, four to six families would work at a time, the men taking the fish from the traps and gathering firewood while the women dressed and hung the salmon. The runs of silver salmon occurred in October and during the month the families stayed at the site.[18] However, at other times in the year families would check the traps and any fish caught would be taken back to the villages.

Further influence of a socio-political nature upon the nucleation of communities must remain pure speculation. The need for protection could well have had an influence upon nucleation during times of attack, but specific evidence of settlements built with protection in mind is not available. Just as there were chiefs or other leaders in times of peace so were there appointed leaders in times when attacks from other tribes were suspected. These men organized the various families to fight as larger and better prepared units.[19]

Economic Functions

As previously explained, the economic function of Nooksack community groups was primarily related to fishing and gathering. Economic pursuits influenced the establishment of nucleated settlements on or near natural prairies and near the major fisheries of the Nooksack River and its tributaries. Many descriptive names were

TABLE 2

SELECTED NOOKSACK INDIAN PLACE NAMES

Name	Location or Present Name	Indian Meaning
Nuc-qua-lum	The North Fork of the Nooksack River	Place where the dog salmon spawn
Nut-ak-um	The Middle Fork of the Nooksack	Muddy water
Lew-h-say	In the Lawrence district on a small creek	Where the steelhead salmon run
Que-que-wh-ose	Above Nugent's Bridge, south of Lawrence	The place for digging roots
Nu-klus-kum	Ten Mile Creek and Barrett Lake	Silver salmon
Kisk-a-well	The Forks of the Nooksack	Place for killing salmon
Mat-cha-ni	Place near Lynden where berries were plentiful	Black haw berries
St-sew-hal	A crossing on the Nooksack	Where the trail comes to the water
Yok-it Muxin	An ox-bow bend in the Nooksack near Bertrand Creek difficult to navigate	Long nose
Quck-sman-ik (Kulshan)	Mount Baker (Mount Baker)	White Rock (Bleeding wound) Lummi

SOURCE: P. R. Jeffcott, Nooksack Tales and Trails, pp. 54-57.

given by the Indians to tributaries, adjacent prairies, and settlements near the Nooksack River. Most of the place names expressed the interest of the Nooksack Indians in the streams and prairies as sources of food. (See Table 2)

An early report on the Nooksack Indians and their economic activities was written by E. C. Fitzhugh, Special Indian Agent, in 1857. He writes:

> As a general thing their women are very industrious and do most of the work, and procure the principal part of their sustenance; they cultivate potatoes and generally have a superabundance so that they dispose of a great many to the whites, by which means they procure the greatest part of their clothing. They have an abundance of fish; salmon is the principal standby; also, shellfish of all kinds, in fact, I think I never saw a country so well adapted for the Indians to live in as this.[20]

During the fishing season, the community members were actively engaged in trapping, netting, and preparing salmon for the winter. Most of the nucleated settlements were located near small streams or creeks. Major villages usually had smokehouses at the fishing site. Major fishing sites were on Fishtrap Creek, which drains portions of the Lynden Prairie, and on Anderson Creek, near Goshen. At The Crossing, the Forks, and various rapids, traps were found in the shallow waters of the river; the settlements were located nearby. Other villages were located close to fishtrap or dip-net sites near the mouths of smaller tributaries.

Although major villages and smokehouses were located near fisheries, the Nooksacks also engaged in gathering and cultivating, and the establishment of nucleated settlements was greatly influenced by the proximity of such parairies. A number of prairies lined the Nooksack River, many of them the result of flooding and stream deposition. In the Lynden area, a natural prairie utilized for fern root and camas bulb gathering was situated on the edge of the Lynden Terrace east of the present city. Prairies of a similar nature were located between Lynden and Everson; between Lynden and Ferndale; near Lawrence; at Clearbrook; near Goshen; and at the Forks.

Smith's account of the Nooksacks points out that of the material collected for her study of the Nooksack, Chilliwack, and Middle Fraser groups, the Nooksack material" . . . presents the most elaborate attention to wild-root crops as a source of subsistence of any people along the Pacific Coast."[21] It certainly indicates the importance of prairie crops in the Nooksacks' economy. Smith's account concerning the importance of the root crops as a vital supplement to their other staple, fish, is worth recounting.

> . . . the Nooksack actually replanted to assure a new crop. Near Goshen there was a small prairie where many "Indian carrots" grew. These were prized food and were dug in March. Each family owned its own' plot, about forty feet square, and the plots were marked off from each other by shallow ditches. Trespass on another's plot was a serious offense and caused "big fights." The roots were dug, the edible portion broken off, and the sprout replanted. The soil was kept loose and "easy to dig."[22]

However, other root crops such as the fern and the camas were not cultivated, though they played as important a part in settlement locations as did the "Indian carrots" for they too were found in the natural prairies and dug by the Indians.

According to Edson, the potato, a rough-skinned "Irish" variety, was first introduced into the area by the Hudson's Bay Company,[23] and Smith, who stresses the importance of the potato as an item of diet to the Indians, believed that it was through diffusion by trade and promotion that the cultivation of the potato spread from the Nooksacks to other groups in Puget Sound.[24] It has to be pointed out, however, that this was a late development--probably not before about 1828 or 1830, some time after the establishment of the Hudson's Bay Company's Fort Langley on the Fraser River in 1827-28.

The transportation route the Nooksack River afforded was important in the Nooksacks' trade contacts with the Lummis near its mouth. Most of the Nooksacks lived near the river and built canoes which they used for transporting goods. Whether the Nooksack settlements were located near the river primarily for trading or for fishing is a matter that cannot be determined: both were undoubtedly of importance.

Some nucleated settlements--such as those near Everson and The Crossing--were located near the convergence of major Indian trails. Because of the shallow waters at The Crossing, trails led to and from that point in all directions. (See Map 3) Later, during the Fraser gold rush of 1858-59, thousands of prospective miners crossed the river at this point on their way north from Whatcom. According to Jeffcott:

> Pop-a-ho-my, meaning a crossing place, and later known to the whites as The Crossing, was always the most important point on the middle Nooksack. It was here that several important trails converged and crossed the stream by canoes, and here, too, the early pioneers recognized its strategic importance, establishing one of the earliest settlements in the valley . . . Because of its importance, there had always been an Indian settlement there.[25]

Village Morphology and House Types

Most historical documents have little or nothing to say on the matter of the community layout or plan of the Nooksack settlements. However, two general village forms based on house types are recognizable--the pit-house village and the longhouse village forms.

Village form was influenced by both physical and cultural factors as, for example, the influence of wild food sources and the nature of the Indian economy on the site locations of the various settlements. Building materials, mainly cedar bark and planks, were acquired from the nearby forest. Many villages were built on the banks of the Nooksack River or one of its tributaries. In general, it may be said that the Nooksacks lived in harmony with nature and utilized its immediately available resources. There is no evidence that land was cleared or burned in order to cultivate crops or build villages. Of the cultural factors, personal preference in house types and traditional social groupings were perhaps the most influential factors determining village morphology.

House Types

The following examination of the two distinct house types--the pit-house dwelling and the longhouse dwelling--and the relationship of one dwelling to another--or community pattern--includes an analysis of various factors which may have influenced house form and village morphology.

Another house type, not associated with Nooksack nucleated settlement, was the result of modifying factors operative after 1860. A discussion of this house type is also included.

Pit-house dwellings:- Pit-house dwellings located on the Lynden Terrace and near Sumas are the only dwellings of this type that have been found in the Nooksack Lowland. When early American settlers entered the region in the 1860s and 1870s, approximately fifty pit-house sites were found, there being some ten to fifteen houses in each group.[26]

The houses were constructed in the following way. First, a hole was dug in the ground four to twelve feet deep. Over this was placed a framework of poles tied together at the top with bottoms extending beyond the perimeter of the pit. Upon the poles were tied strips of cedar or fir bark which acted as the roofing material. Dirt was mounded around the outside of the dwelling, and this helped secure the poles. The resulting shape of the pit-house therefore was conical.[27]

A fire pit was located in the center of the house directly below a small opening in the roof through which the smoke could escape. Attached to the walls of the pit were cedar-plank platforms covered with reed mats which were used for seating or beds. Other furnishings included cooking utemsils, tools, and baskets filled with dried salmon, potatoes, and other foods.[28] (See Figure 9)

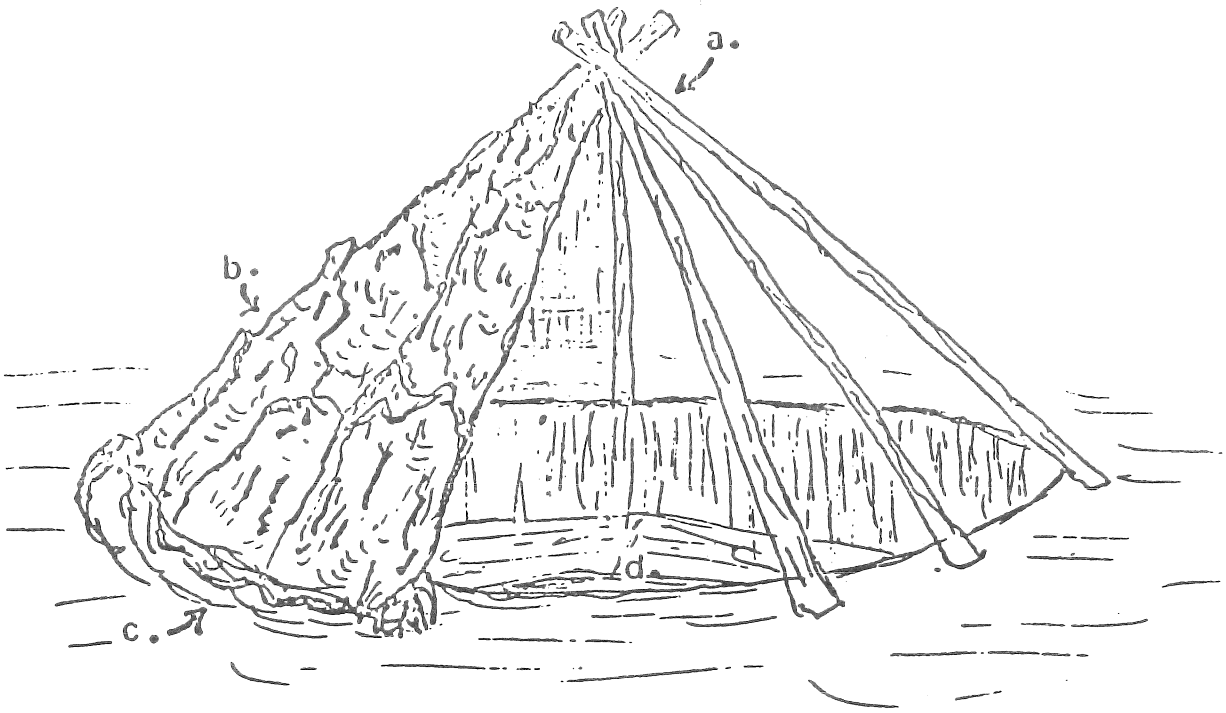


Fig. 9. Nooksack pit-house dwelling. a) Poles tied together at the top, extending over edge of pit at the base; b) roofing material of cedar or fir bark; c) mounded dir around the base; d) sleeping platform above the floor level.

The pit-houses found in the Nooksack Lowland were similar to those found in the interiors of British Columbia and Washington. Waterman and his collaborators have suggested that the conical or "interior" pit-house was greatly modified by exposure to Coast Salish wood-working cultures.[29] Emmons believes its occurrence among the Nooksacks is a major clue in tracing the movements of the interior Indians to the Nooksack Lowland.[30] According to Waterman,

> No Indian has yet been seen who could advance an explanation of why his people made pits for their houses. They are of little use for protection. In all these houses the occupants sleep on a sort of shelf above the sides of the pit. In the Puget Sound area and among all the tribes to the northward, "bunks" or sleeping platforms were built which elevated the sleepers still more.[31]

However, a majority of the pit-houses of the west coast of Washington were not conical in shape--rather they were rectangular. The two pit-house types have never been found existing side by side and

in the Nooksack Lowland only the conical pit-house has been found.[32] However, rectangular smokehouses constructed entirely above ground level were associated with the pit-house settlements near Lynden.

The influence of physical and social factors on the pit-house form was varied.[33] Although the pit-house offered adequate shelter to the Nooksacks, it does not appear to have been the most desired form. Having its origin in the interior regions of the continent, the house seemed more adapted to a region of cold winter weather with heavy snowfall to act as insulation than to a region with heavy rainfall and little snow such as the Nooksack Lowland. The limited use of lumber in the structure would tend to indicate a scarcity of that building material, which is, in this case, a paradox as smokehouses of split-cedar planks were found near the villages and cedar was abundant in the area.

Apparently the Nooksacks were aware of the wood-working skills of their neighbors yet, because of local preference, they maintained their pit-house dwellings. The only clue as to why the groups on the Lynden Terrace did so perhaps lies in the nature of the site: all such houses were built in areas of well-drained, sandy or gravelly soils. If pit-houses had been built in the Nooksack River valley, water would have filled them during the winter months as the water table there is only a few inches to a few feet from the surface and drainage is poor. According to Jeffcott, the pit-house sites on the Lynden Terrace were located there "since its gravel formation gave good drainage for those cellar-like habitation."[34]

Other than the influence of site and traditional preference, no other physical or social factors can be said to have encouraged the maintenance of pit-house dwellings.

Gabled longhouse dwellings:- Longhouses were the basic house form of the Nooksacks who lived upstream from Lynden near Everson, Goshen, Lawrence, and the Forks. The longhouses were similar to those of the Lummi and other Coast Salish groups and were assumed to have been built after the Nooksacks came into contact with the wood-working culture of the coast.[35] Longhouses varied in size

from those 500 feet long to single-family houses of much smaller dimensions.

A longhouse near Goshen, with an estimated length of 500 feet, was divided into apartments for the various families which resided there.[36] Its roof was gabled and horizontal slabs of cedar served both as wall and roofing materials. Around the interior of the longhouses were platforms which served as beds and under these were placed winter food supplies. Longhouses with family divisions or apartments commonly had cooking fires for each of these sections, or for each of two or three adjacent ones. These were located along the center of the longhouse. Several large holes in the roof allowed the smoke to escape; the only other opening was a doorway, usually at one end of the structure. (See Figures 10 & 12)

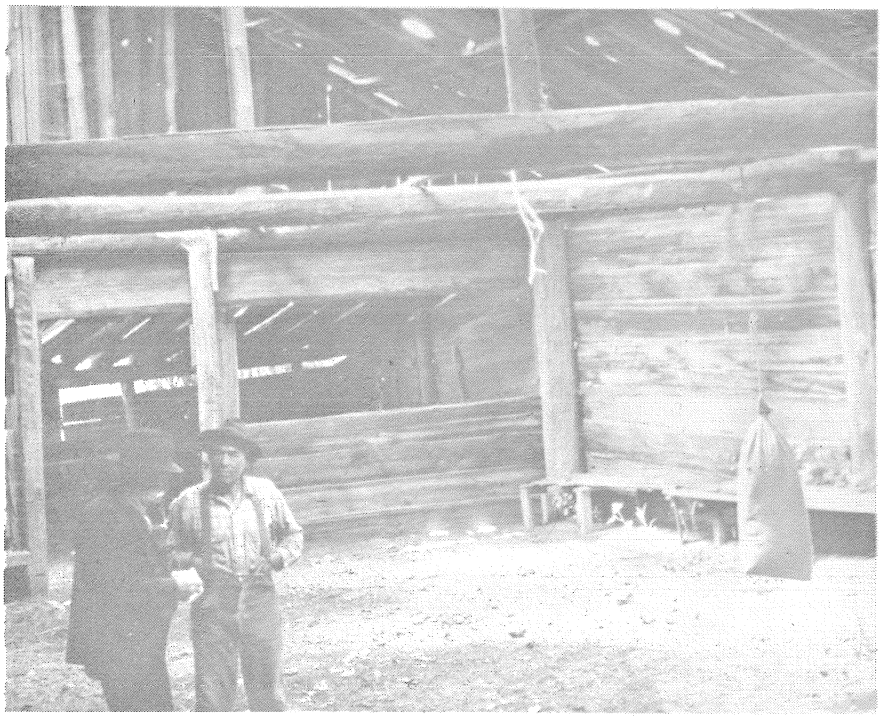


Figure 10. An interior view of a Nooksack longhouse near Goshen shows the framework and benches along wall. Pictured with David Johnson, Nooksack Indian, is Robert Emmett Hawley (left). (Jeffcott Collection)

Some longhouses were lived in for only part of the year and these functioned primarily as smokehouses or "dry" houses. Several families often shared a smokehouse during the fishing season and returned to smaller cedar-plank structures for the winter.[37]

Various physical and social factors influenced the longhouse form of dwelling. The gabled roofs of the longhouses allowed the abundant rain to run off easily. Some structures were designed with an overlapping roof-board near the ridge-pole where space was left to permit smoke to escape, but prevent rain from entering. Various materials were placed between the exterior wall-boards, and reed mats were hung on the interior to keep out the winter winds. The exterior wall-boards were also overlapped to provide further protection from the weather. (See Figure 11)

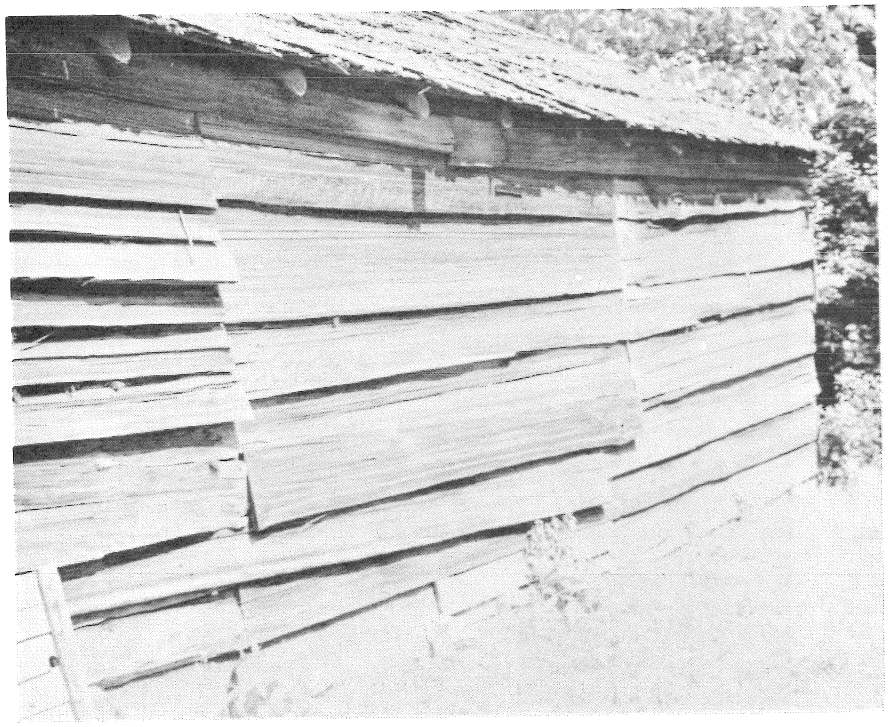


Fig. 11. Overlapping split-cedar planks cover the exterior of this Nooksack longhouse. Each board is approximately sixteen feet long and sixteen inches to two feet wide. (Jeffcott Collection)

Cedar, which was found in abundant quantities throughout the region, was the main building material. It was split with the aid of stone, wood, or bone implements and, presumably, after the beginning of Hudson's Bay Company days--say 1828-30--by iron axes. An example of a longhouse which shows well the workmanship of the Nooksack is seen in Figure 12. One hundred feet long and thirty feet wide, it was built with overlapping cedar planks sixteen feet long and from sixteen inches to two feet wide. Small slabs of cedar shingles covered the roof of this structure, which was built at about the same time as the first American settlement in the lowland. Supporting posts or pillars from abandoned longhouses were often used in the construction of new structures.

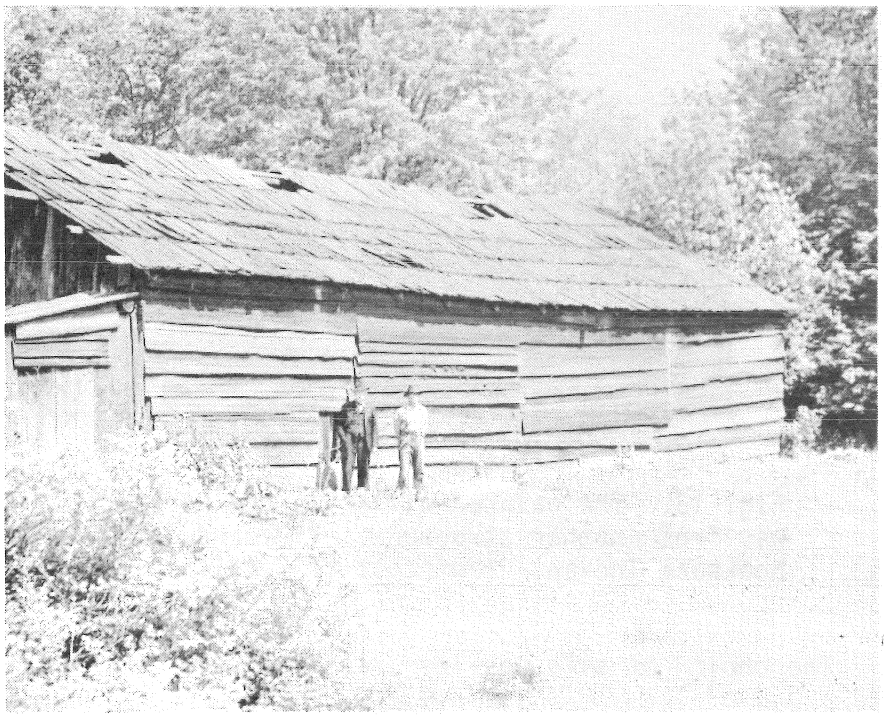


Fig. 12. Smoke holes are visible in this photo and appear to indicate three fires were used by the inhabitants. The longhouse was built circa 1850. (Jeffcott Collection)

Figure 13 shows a large painted pillar of historic significance which was used as a supporting post in a smokehouse at Anderson Creek.

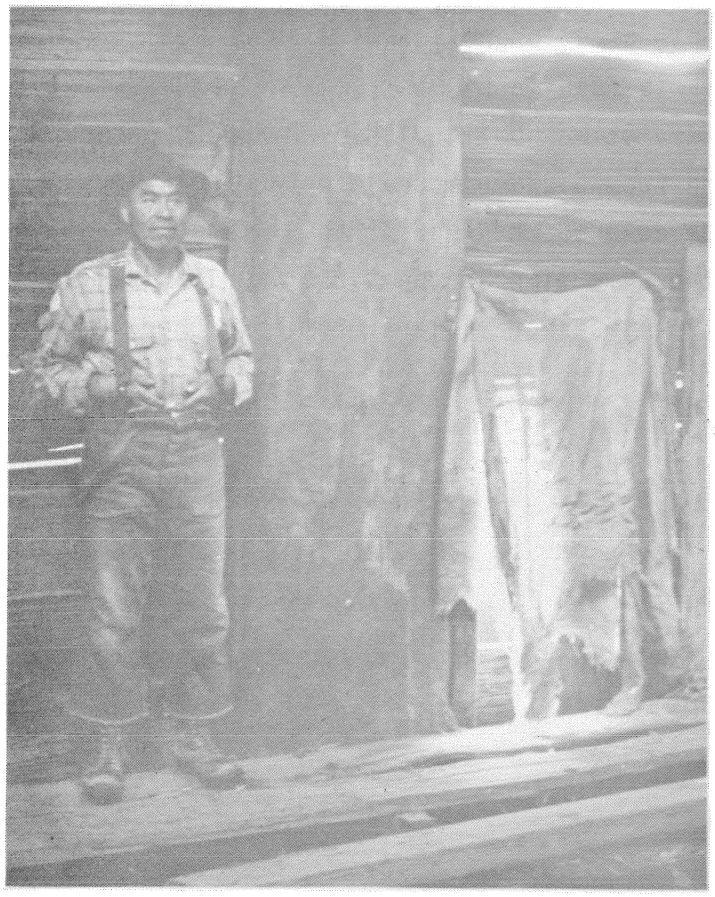


Fig. 13. The painted pillar in the Nooksack longhouse was from another structure. Pictured is David Johnson, Nooksack Indian. (Jeffcott Collection)

The choice of site was less restrictive in the location of longhouses as compared with pit-houses. Longhouses could be located virtually anywhere in clearings or on natural prairies, provided there was access to the fisheries and they were far enough from the banks of the river to escape flooding. In addition, most houses were positioned in such a way as to avoid exposure both to the prevailing southwesterly rain-bearing winds and the less frequent, but bitterly cold "Northeasters" of winter.

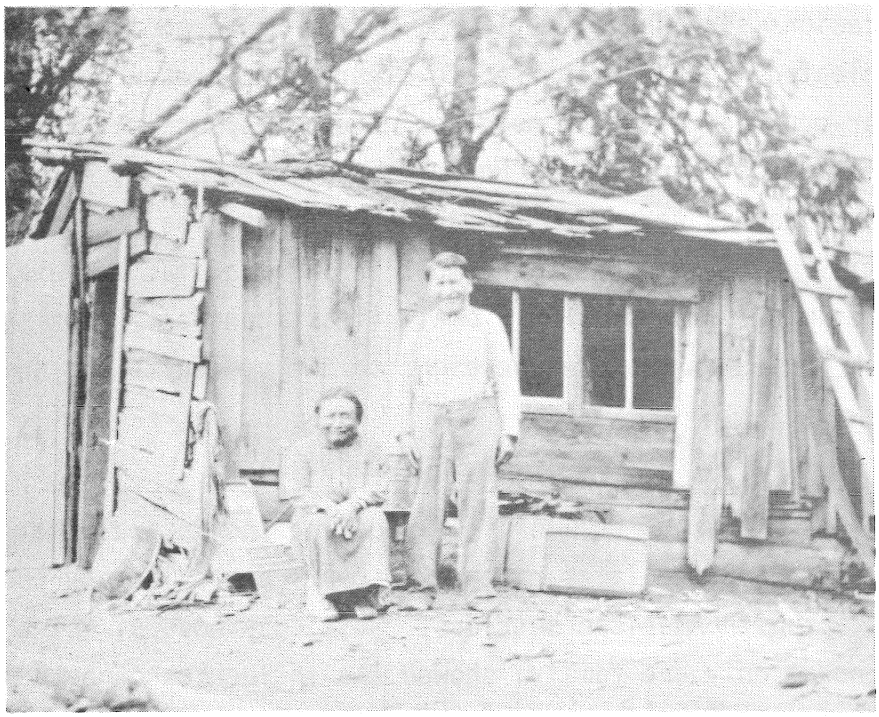


Figure 14. This modified Nooksack home shows the influences of American culture. (Jeffcott Collection)

Figure 15. Nooksack Indian home near the Forks, built circa 1880, is a dove-tail log cabin (Jeffcott Collection)

The immense size of some longhouses may be attributed to influences such as the economy, social structure, and political function of the particular group. Some longhouses were primarily for festive occasions such as the potlatch, or for the council meetings of each nucleated group, as opposed to other structures which served as year-round homes. The need for defense appears not to have affected the house size or form. However, the buildings were constructed in such a way as to exclude unwanted animals. The size of the extended family unit was perhaps the most influential factor determining house size; most structures were small (less than forty feet square) and each housed on the average eight to twelve adults and children.[38]

Modified Indian Dwellings

As explained earlier, the modified Indian dwelling which became important in the later nineteenth century was largely the result of contact with American settlers. Most such houses, which were built to house only one family, showed the influences of both American and Indian cultures in the form they assumed and the materials they used.

When American settlers moved into the region, the Indians were encouraged to live like white men in order to homestead lands and maintain their tribal homes. An outward sign of conformity to American influences was a white-style house with glass windows, hinged doors, and perhaps a chimney. For example, the Indian home in Figure 14 shows the attempt to utilize cedar boards from a previous structure in a new home of saw-milled lumber. A glass window added to the house's appearance and other items, traded or purchased from the stores in the area, added to the Indians' interior furnishings. Other Indians owned log cabins similar to those of American settlers (Figure 15) and eventually most Indian homes retained little or nothing that would identify them with those of the past. (See Figure 16)

Figure 16. Home of the Robert Toms taken after 1935. (Jeffcott Collection)

To illustrate further the modification of Indian structures, one may compare the smokehouse at Anderson Creek (Figure 12) with that of a modern smokehouse at the Forks (Figure 17). The new

Figure 17. Nooksack longhouse at the Forks, rebuilt from parts of an older house. (Jeffcott Collection)

smokehouse (or longhouse), built of mill-sawn lumber and attached to a house complete with kitchen facilities, illustrates the Indians' desire to maintain the form of the past--the general size and shape corresponds closely to that of the Anderson Creek longhouse. Split-cedar siding, added to the walls to cover the vertical siding, also indicates a desire to maintain the outward appearance of past structures. (See Figure 18)

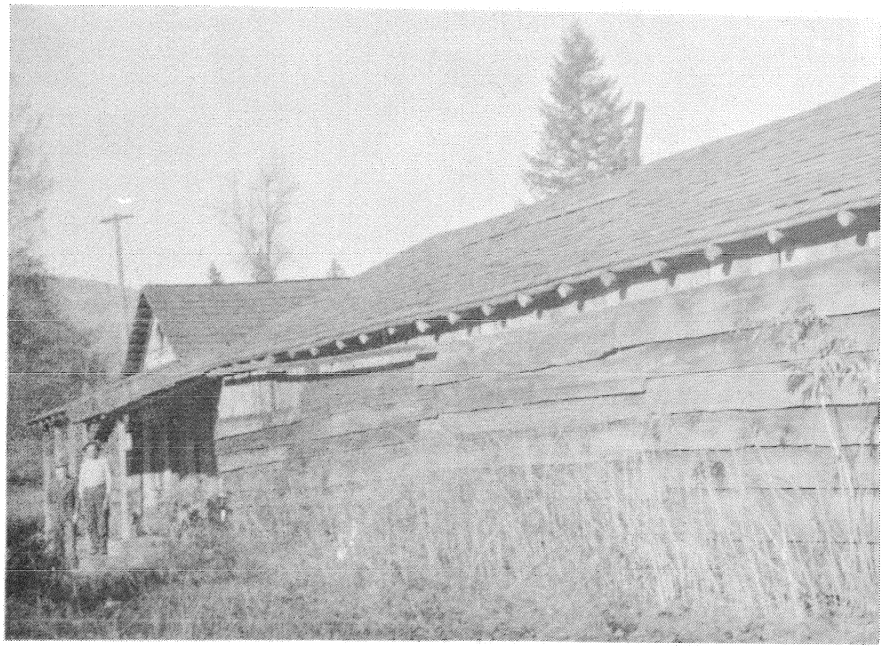


Figure 18. The old cedar planks cover the new sawn lumber in this longhouse. (Jeffcott Collection)

According to Jeffcott:

> . . . the remaining descendants of the tribe have gone modern in the construction of their latest council house. Matched fir flooring has taken the place of old ground floors; a large heater supersedes the fires that once flared and smoked in the center; the smoke holes in the roof have disappeared . . . This building and the ceremonies that are observed here once a year, when the remnant of the once numerous Nooksack Tribe, along with their relatives from British Columbia, meet to keep alive the smoldering embers of tribal customs, are the last links that bind the Indians' life of the present to that of the distant past.[39]

Analysis of Nooksack Settlements

The settlement pattern of the Nooksack Indians was the outcome of the adjustments of Nooksack society to a series of determinants which varied both in their importance and in the kinds of demands they made upon the society. It has been seen that a range of factors influenced the Nooksacks' settlement pattern and also interacted with one another to influence nucleation.

The plentiful supply of salmon and vegetable crops greatly influenced the permanence of Nooksack villages and allowed for stable population as well as settlement growth. A periodic movement of villages such as would be likely to occur in a "slash-burn" agricultural economy was not known. Beardsley explains that although the Northwest Coast groups are cited for their exceptional characteristics including abundant food sources, they still have much in common with the community patterns of other semi-sedentary groups. According to Beardsley:

> This can be explained by the fact that the wild food sources were sufficiently abundant, reliable, and amenable to techniques of preservation to achieve a subsistence potential that in other cases was accomplished only with the aid of domestication. The results were similar to those produced in other areas by the adoption of slash and burn agriculture.[40]

Compared with Beardsley's model of community patterns, the Nooksack settlement pattern seems best to fit the "semi-permanent sedentary group" which is based on a group "whose population is stable and continuously sedentary, but able to be so only by moving the village periodically."[41] To this classification, Beardsley notes one exception--the "northwest coast" groups. Because of the permanence of Nooksack villages and limited seasonal migrations, their community pattern cannot be identified with the "central-based wandering pattern" of the Lummi Indians.

The Modification of Settlement

Although the Nooksacks did not take part in the ceremonies at Mukilteo in 1855, their lands were included in the Point Elliot

Treaty signed by Chow-its-hoot of the Lummis. By the treaty, the Nooksacks were forced to give up all their rights to their lands in the Nooksack Lowland and were obligated to move to the reservation set aside by the United States government.[42]

However, most of the Nooksack Indians did not wish to leave their homes and live among the Lummis. There was little friction at the outset as a result of their insistence upon maintaining their ancestral settlement sites and even after American settlers began moving into the area in the late 1850s and early 1860s the Nooksacks continued to occupy their lands and carry on their lives as they had in the past.

On the other hand, the long-term effect of the Point Elliot Treaty on the Nooksack Indian settlement patterns was profound, for it virtually abolished all vestiges of the patterns. And then, as more settlers moved into the lowland, increased pressure was brought to bear upon the government to have the Nooksacks removed.

In the Bellingham Bay Mail of March 28, 1874, it was reported that the Nooksack Indians objected to being removed to the reservation and that a petition had been signed by Lynden area residents which urged the government to allow the Indians the right to claim and own land. At the same time it was announced that the government had decided that the Nooksacks could become citizens but that in order to do so they must sever their tribal ties.[43] On April 11, 1874, the Mail reported that Indian Jim, at Lynden, had severed his tribal ties, had become a citizen, and had taken up land.[44] (Figure 19)

Not all of the settlers in the area had been eager to sign petitions which would allow the Indians to remain. According to Roth:

> One Lynden settler said of the Indians in 1874: The presence of the Indians has become almost intolerable to our settlers. They not infrequently prevent immigrants from settling here by claiming certain tracts of the most desirable lands, yet they are not trying to get a title but to hold surveyed land by squatter's rights, at the same time claiming protection and annuities as Indians. They have no fences, but keep horses and stock running at large which is a great annoyance to settlers who are anxious for their removal.[45]

Figure 19. Jim Yelo-kan-im, known to early settlers as "Lynden Jim" or "Indian Jim." (Seated) A Nooksack leader at Squ-ha-lish, he died in 1911 at age 100 and is buried in the Indian cemetery east of Lynden. (Jeffcott Collection)

Hawley writes that the Indians were allowed privileges in homesteading similar to those accorded the white settlers if they had three white men sign for them and were prepared to accept the white man's way and live like white men. He also says, however, that few Indians were able to maintain their claims in the Lynden area, and that many sold them to new settlers.[46]

The settlement pattern which resulted from the governmental surveys of the Nooksack Lowland in the 1870s was consistent with that of American settlements elsewhere. Some quarter sections of

land were allotted to Indians, many of whom maintained their claims and were quite successful with their trade in agricultural products. The Indian homesteads that were the most continuously successful were located southeast of Everson on both banks of the Nooksack River, in close proximity to the gardens and prairies they had cultivated for years. There was also a successful group of claims maintained near the Forks and just north of Van Zandt.

In conclusion, then, it may be said that by 1880 the immigration to the Nooksack Lowland of American settlers had brought with it cultural contacts which affected all segments of Nooksack society. From an independent, extended-family nucleus with a dispersed pattern of cluster settlements, the Nooksacks and their lands soon became part of the general American settlement pattern which blanketed the lowland. To remain in control of their ancestral lands they were coerced into becoming part of an alien American society, which, once established, became the dominant force influencing Indian life.

NOTES

[1]Smith, "The Nooksack, Chilliwack, and Middle Fraser," pp. 330-31; Emmons, "Archaeological Survey," p. 53. In the 1940s several Nooksack Indians were interviewed by P. R. Jeffcott and asked about their origin. Their replies were severally: "We do not know." See Jeffcott's "The Nooksack Indians," Chapter II (unpublished MS, Center for Pacific Northwest Studies, Western Washington State College).

[2]Emmons, "Archaeological Survey," p. 53.

[3]Smith, "The Nooksack, Chilliwack, and Middle Fraser," p. 331.

[4]Jeffcott, Nooksack Tales and Trails, pp. 11-12.

[5]The word "Nooksack" has been spelled in a variety of ways, an indication of the difficulty encountered with the language. Edmund C. Fitzhugh reported in 1857 that the name was "Neuk-sack" and that it signified "mountain men." For Fitzhugh's entire report see Roth, History of Whatcom County, pp. 50-53. M. Eells in "The Indians of Puget Sound," American Antiquarian IX, no. 1 (January 1887), pp. 1-9, refers to the Indians as the "Buk-sak" (p. 7) who ". . . spoke with a dialect so different from the Lummis as to be almost intelligibles to them." According to Hawley, the meaning of the name is from "nook" meaning people and "sa-ak" meaning fern or bracken roots, that is, the "people who eat fern roots." See Hawley, Skqee Mus, p. 35. The name was also used to designate a fern prairie destroyed by a shift of the Nooksack River near Goshen. See Jeffcott, Nooksack Tales and Trails, p. 24.

[6]Jeffcott, Nooksack Tales and Trails, pp. 11 and 15.

[7]Indian place names used are from Jeffcott, Nooksack Tales and Trails and "The Nooksack Indians." For locations, refer to Map 2.

[8]Ibid., p. 12.

[9]Smith, "The Nooksack, Chilliwack, and Middle Fraser," pp. 339-40.

[10]Jeffcott, Nooksack Tales and Trails, pp. 13-14 and 34.

[11]Jeffcott, Nooksack Tales and Trails, p. 15.

[12]See Roth, History of Whatcom County, p. 50.

[13]Jeffcott, Nooksack Tales and Trails, p. 13.

[14]Ibid., p. 12.

[15]Hawley, Skqee Mus, p. 37.

[16]Jeffcott, Nooksack Tales and Trails, p. 36,

[17]Judson, A Pioneer's Search for An Ideal Home, pp. 151-52.

[18]Hawley, Skqee Mus, p. 44.

[19]Ibid., p. 72.

[20]Fitzhugh, as quoted in Roth, History of Whatcom County, p. 51.

[21]Smith, "The Nooksack, Chilliwack, and Middle Fraser," p. 337.

[22]Smith, "The Nooksack, Chilliwack, and Middle Fraser," p. 337.

[23]Edson, The Fourth Corner, p. 18.

[24]Smith, "The Nooksack, Chilliwack, and Middle Fraser," p. 337.

[25]Jeffcott, Nooksack Tales and Trails, p. 42.

[26]Edson, "Pioneers along the Bend of The Nooksack," p. 11. Jeffcott has located another "dug-out village" east of Clearbrook called Tah-me-who-tan. See Jeffcott, MS, "The Nooksack Indians," p. 11.

[27]Edson, "Pioneers along the Bend of The Nooksack," p. 11 and Jeffcott, "The Nooksack Indians," p. 4.

[28]Hawley, Skqee Mus, p. 36.

[29]T. T. Waterman et al, Native Houses of Western North America (New York: Museum of the American Indian, Heye Foundation, 1921), p. 30.

[30]Emmons, "Archaeological Survey," p. 53.

[31]Waterman, Native Houses, p. 29.

[32]Ibid., p. 30.

[33]The ensuing discussion of the influence of physical and social factors on house form is based on Amos Rapoport's House Form and Culture, pp. 18-45 passim. Factors which may have influenced house form include physical factors of climate and the need for shelter, materials and technology, and site, and social factors such as economics, defense, and religion. Indian house types are based on T. T. Waterman and Ruth Greiner, Indian Houses of Puget Sound, pp. 7-23 passim.

[34]Jeffcott, Nooksack Tales and Trails, p. 34.

[35]It appears that the gabled longhouse was the only form built by the Nooksacks. Although most longhouses functioned as homes, others functioned as "council houses" or "smokehouses."

[36]Jeffcott, Nooksack Tales and Trails, p. 13.

[37]Warren E. Hawley, "Interview," Monroe, Washington, December 12, 1970. See also Judson, A Pioneer's Search and Hawley, Skqee Mus, p. 44.

[38]Warren E. Hawley, born in Lynden in 1885, recalls several Indian homes in that area. According to Hawley, the houses were made of small cedar planks or logs usually twelve to sixteen inches in diameter with a cedar bark roof.

He also recalls tepees made with mainly cedar bark, woven grass, and tules. Hawley's informants, he recalls, were Indian Jim, Dick Harry, Tennas George, Stick Pete and other Nooksack Indians living in the Lynden area. Personal letter from Warren E. Hawley, January 19, 1970.

[39]Jeffcott, Nooksack Tales and Trails, pp. 14-15.

[40]Beardsley, "Community Patterning," p. 393.

[41]Beardsley, "Community Patterning," p. 383. For a hierarchy of community patterns see Chapter III, p.

[42]See the discussion of this matter in Chapter II, supra.

[43]Bellingham Bay Mail, March 28, 1874.

[44]Bellingham Bay Mail, April 11, 1874.

[45]Roth, History of Whatcom County, p. 170.

[46]Hawley, Skqee Mus, p. 36.

CHAPTER IV

PIONEER SETTLEMENT

Introduction

Timber resources, which attracted the first permanent settlers to the coastal areas of Whatcom County in 1852, did not immediately attract American settlers to various inland locations in the Nooksack Lowland. It was not until five to ten years after the Bellingham Bay settlement at Whatcom was established that the first permanent settlers moved to the prairie areas of the Nooksack Lowland in search of agricultural land.[1] "Blanket Bill" Jarman, "the first bona fide settler of Whatcom County," located on a prairie near the mouth of Friday Creek in 1848.[2] Further evidence indicates that the earliest settlements in the Nooksack Lowland were also located on prairies which the Indians had utilized as sources of food for generations.

Although the prairies were the scenes of the first permanent settlement in the Nooksack Lowland, temporary buildings had been raised and occupied in 1858-59 during the Fraser gold rush. Leaving from Whatcom on Bellingham Bay, gold seekers passed through the region on their way to the gold field, in response to which some structures were built, but these settlements were short-lived. Whatcom, which acted as a "clearing house" for the miners, experienced a large increase in population in 1858 and then a very rapid decline. According to Jeffcott:

> The whole Gold Rush Bubble, it would seem, burst almost over night. What was the deciding factor, we do not know; but the rush to get out of Whatcom was just as keen as the rush to get in, had been. Men fell over one another to unload, in cases of businesses, and stocks were sold for what they would bring. Many buildings were torn down and moved to Victoria, with the hope that the proprietors might yet get safely out from under; and within the short space of ten days, the population had faded from thousands to less than two hundred . . . .[3]

However, many of the men who passed through Whatcom County on their way to the gold fields were impressed with the open prairie areas, and

some returned later to take out claims. Five Mile Prairie, Six Mile Prairie, and Ten Mile Prairie are names which recall the earliest recognition of the natural clearings the miners utilized. On these, the men usually stopped to camp and graze their horses. A letter from William Smith, published in the Northern Light of July 2, 1858, includes a partial description of the Whatcom Trail to British Columbia and the prairies found along it:

> The first water and grasses are on Six Mile Prairie. Five miles on, water. Two small streams between that and Lummy [Nooksack] River. Prairie for 18 miles to the base of mountain, with plenty of water.[4]

At the time the first American settlements were established in Whatcom County in 1853, no government surveys of any sort had been undertaken. However, in 1857, at the behest of the British government acting on the advice of Governor James Douglas, the boundary survey authorized in 1846 by the Treaty of Washington was begun,[5] but it was not until the 1870s that the first land surveys were made in the Nooksack Lowland.

The Establishment and Distribution of Agricultural Settlements

Although before 1860 few permanent American settlements had been established in the Nooksack Lowland, within fifteen to twenty years considerable transformation had taken place as settlers moved to the rich agricultural lands. By 1880 agricultural settlements were distributed throughout the region. The largest concentrations of settlers were found near the present sites of Ferndale, Lynden, and Everson, and it might be noted that those at Lynden and Everson were close to major settlements of the Nooksack Indians.

Free land was a great inducement to pioneers who wished to engage in agriculture. Phoebe Judson notes that "Uncle Sam invited us here to subdue this wild country,"[6] and after settling briefly near Olympia, the Judsons found their way to the Nooksack Lowland and did exactly that. Mrs. Judson elsewhere in her book states that:

> The motives that induced us to part with pleasant associations and the dear friends of our childhood days was to obtain from the government of the United States a grant of land that 'Uncle Sam' had promised to give to the head of

each family who settled in this new country.[7]

The factor which appears to have influenced most the location and distribution of settlements was the prairies, for it was on these prairies that the largest number of settlers could be found. These included the Nooksack Prairies near Everson; the Lynden (or German) Prairie; Bertrand Prairie and various smaller prairies near Lynden; Barnes' Prairie near Clearbrook; and the Ferndale Prairies.

The Influence of the Fraser Gold Rush on Settlement

Within a few months of the beginning of the gold rush, a few miners had returned to Bellingham Bay looking for work or passage to their homes. However:

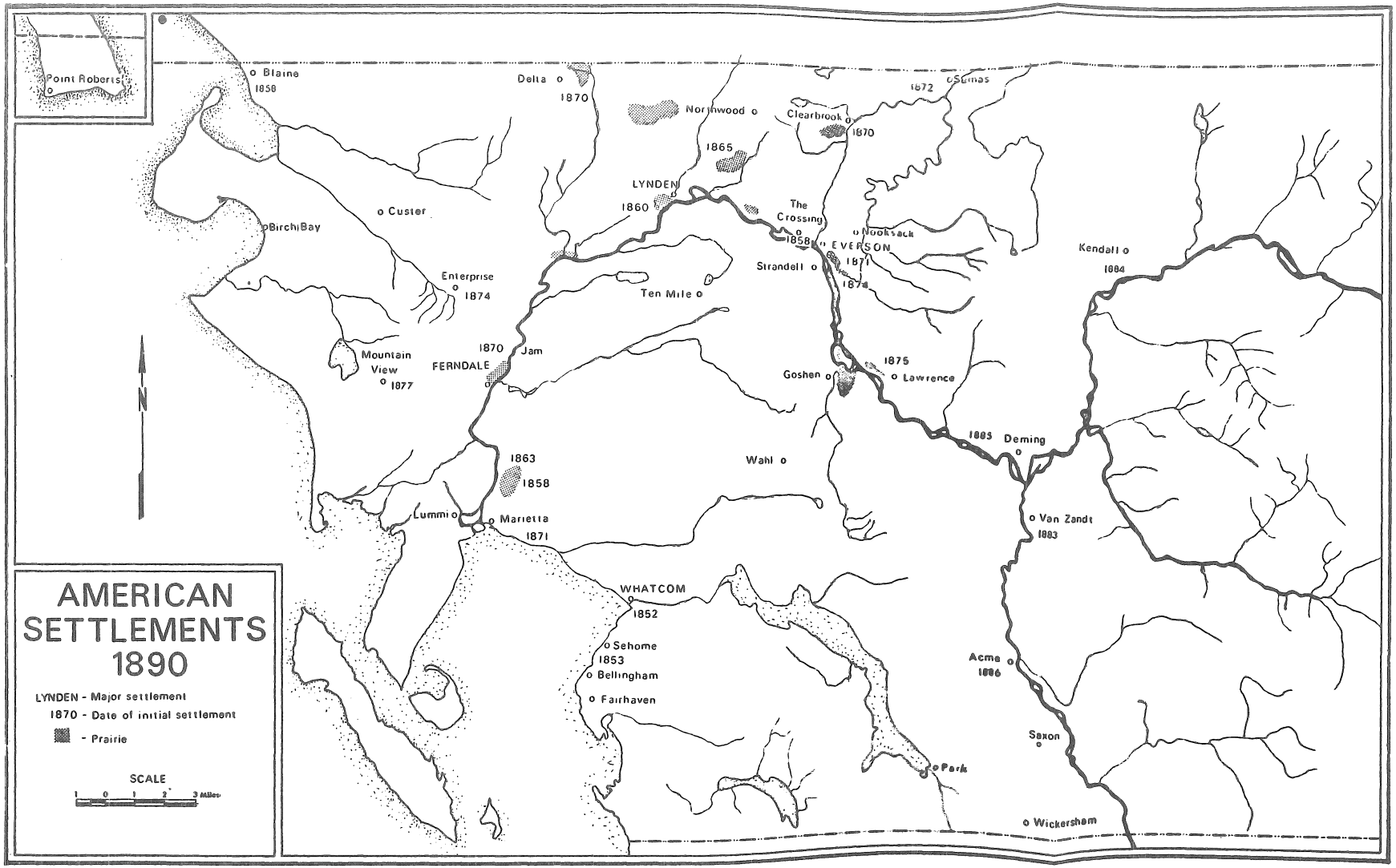
> The mill [on Bellingham Bay] had proved unsuccessful, the gold excitement had vanished, the military forces had been withdrawn, and the soil was the last resource available. Then it was the stranded workers sought the rich lands of the Nooksack which offered a home of plenty to the frugal and industrious.[8]

With the 1860 census recording only thirty-five women in Whatcom County,[9] many of the miners who returned later married women of the Nooksack or Lummi tribes, and as a result became some of the earliest to establish permanent agricultural settlements. As Warren E. Hawley says of the early pioneers,

> . . . with nature's supply of wild animals--birds, fish, and shellfish--along with their own gardens and fields, they could live comfortably and because of climatic conditions, could be assured moderate weather.[10]

John A. Tennant and Thomas Wynn,[11] both of whom had been attracted to Whatcom during the gold rush, recognized the advantages of a prairie near Ferndale which at that time was being utilized by the Indians. It was there they chose to settle with their Indian brides, Tennant in 1858, Wynn in 1863.

Tennant and Wynn were followed by M. T. Tawes who settled on the right bank of the Nooksack just upstream from the present town of Ferndale sometime before 1870.[12]


Point Roberts
Blaine
1858
Delta
1870
Northwood
Clearbrook
1870
1872
Cedarville
1865
LYNDEN
1860
The Crossing
1858
Nooksack
EVERSON
1871
Strandell
1874
Kendall
1884
Custer
Birch Bay
Enterprise
1874
Ten Mile
Mountain View
1877
1870
Jam
FERNDALE
1875
Goshen
Lawrence
1883
Deming
Wahl
1863
1858
Lummi
Marietta
1871
Van Zandt
1883
WHATCOM
1852
Sehome
1853
Bellingham
Fairhaven
Acme
1886
Saxon
Park
Wickersham
N
AMERICAN SETTLEMENTS 1890
LYNDEN - Major settlement
1870 - Date of initial settlement
- Prairie
SCALE
1 0 1 2 3 Miles

The earliest men to undertake agricultural pursuits in the Lynden area are believed to have been Colonel James A. Patterson and Reuben Bizer who settled on prairie land there about 1860. Hawley writes,

> What attracted the first settlers, Colonel Patterson and Reuben Bizer, about 1860, to the place where Lynden was afterward located, was a strip of prairie, mostly peat marsh, which lay between what is now the south side of town and the river. This extended west almost to what later became the Guide Meridian. They chose it for a dairy or stock ranch, because of the great abundance of feed for stock.[13]

In 1865, Daniel McClanahan and his Indian wife settled east of the Patterson ranch and there, on prairie grasslands, they improved the land, planted an orchard, and raised four children. Joe Emerling, also a "squawman," located near McClanahan. Other miners who later settled on the prairies of the Nooksack included Daniel Kilcup, Harry West, and George Rehberger, all of whom settled on Fern Prairie, situated between Lynden and Everson on the right bank of the Nooksack, within ten years of their return from the Canadian fields.

Pioneers of the '70s and '80s

In 1870 one of the first families not connected with the gold rush moved to the Nooksack Lowland and settled near the present site of Lynden. Holden A. Judson and his wife Phoebe--later to be known throughout the region as "The Mother of Lynden"--settled in a log home on the prairie lands which had been the stock farm of Colonel Patterson.[14] There they raised their children and adopted children. Patterson had met the Judsons in Olympia, and because Mrs. Judson had consented to the raising of his half-breed children, he relinquished his claim to the Judsons.[15]

In 1870, James Bertrand, who had worked with the American-Canadian boundary survey party of 1857-58, sought out a small prairie near the border which he had previously visited and appraised, and there he established his home. This prairie continued to be known as Bertrand Prairie. That same year, Ed Barnes settled on Barnes' Prairie--later known as Hog Prairie--to raise hogs and establish the first settlement in the Clearbrook area. Following these early settlers were the Enoch

Hawleys, who became the second white family in the Lynden area, and the O'Neils in 1873, who settled on what remained of the open prairie lands near Lynden.[16]

Other homesteads were established near the present site of Everson on the Nooksack Prairies, the earliest being those of "Ever" Everson in 1871 and James Harkness in 1874. By 1880, much of the easily-cleared lands had been settled, improved, and the settlers' claims legally recorded. The lands that remained were often marshy and not as easily drained as the clearings that had been taken up earlier, or else were covered with dense stands of Douglas fir. James Bremner, who homesteaded on Bertrand Prairie in 1880, found that most of the easily-cleared land was already claimed, and John Axling, who settled in the area in 1889, says, "Strictly speaking, it was not really a prairie, rather a low swampy area covered with low brush and easily cleared."[17]

The Pattern of Settlement

Following the advent of the first American settlement in the Nooksack Lowland, the pattern of pioneer settlement which eventually crystallized was not one of nucleated villages but rather one of dispersed farmsteads. These farmsteads corresponded closely with the dispersed grassland and other natural clearings of the region. Consequently, in order to understand the development of the dispersed settlement pattern, it will be necessary to examine the influence of natural and cultural conditions.

The Influence of Natural Conditions

Natural conditions influenced the dispersed-pattern of settlement in various ways. As previously pointed out, the most important factor influencing the dispersion of population was the prairies. These prairies were found throughout the lowland and were surrounded by dense stands of Douglas fir and other forests. The soils and abundant rainfall and other characteristics of an equable climate were all important to the early farmers and they induced others also to settle in the lowland. A pioneer's reaction to the Nooksack Lowland written in 1882 is well stated in the following passage:

> There are many inducements to settle here, chief of which no doubt, is the excellence of our soil. Our climate is not perfection, for at times it does rain, perhaps a great deal, and then often when some of us wish it was dry, but show us a better climate with one half the advantages we have here. We have a good variety of soil, and a good variety of timber. However, in the occupied part of the valley, and the part at present available to settlement, there is comparatively little heavily timbered land.

and it continues:

> . . . the land requiring ditching is easily cleared, and on all there is ample fall to secure perfect drainage. A few years more and the valley of the Nooksack will be a region of fertility and beauty. Our grains, fruits, and vegetables cannot be excelled. The proper classes to develop the country are finding their way here.[18]

Most of the early farmsteads were located away from the floodplain of the Nooksack River. Near Lynden most of the farms were located on the Lynden Terrace, approximately fifty feet above the river's floodplain. However, water accumulated even on the Lynden Terrace as on Bertrand Prairie, Barnes' Prairie, and other locations in the lowland, and the lands had to be drained for efficient cultivation and agricultural preparation. These lands proved capable of supporting herds of beef and dairy cattle in their marshy state, but they were not ideal for other agricultural use.

Another observer of the '80s records that:

> From Nooksack to the mouth of the river the land is invariably rich, but most of it will require a great expenditure of labor to make it available for agricultural purposes. Even the oldest settlers have a relatively small area under cultivation. The nearer the river as a rule, the harder the clearing, and that which is considered the most fertile will have to be drained and cross-ditched in addition to clearing and underbrushing. Very little attention has been paid to the raising of grain, most farmers prefering dairying and fruit cultivation, and Mr. Drange, of Nooksack, informed me that he cut two crops of hay every year. If this can be done profitably, it will make Whatcom County the dairy county par excellence of America.[19]

Until roads were built across the lowland, the main means of transportation was by boat on the Nooksack River. The farthest settlements

from the river were approximately ten miles away. According to Jeffcott, "Most of the early settlers of the '70s confined their operations to locations near the river. This was due chiefly to the fact that travel by canoe was the easiest form of transportation."[20] In 1877 the "Big Jam" near Ferndale and the "Little Jam" near Lynden were cleared, thus opening the Nooksack for steamboat travel. Improved roads, trails, and the clearing of the Nooksack for steam boats all contributed to a continued population growth in the lowland.[21]

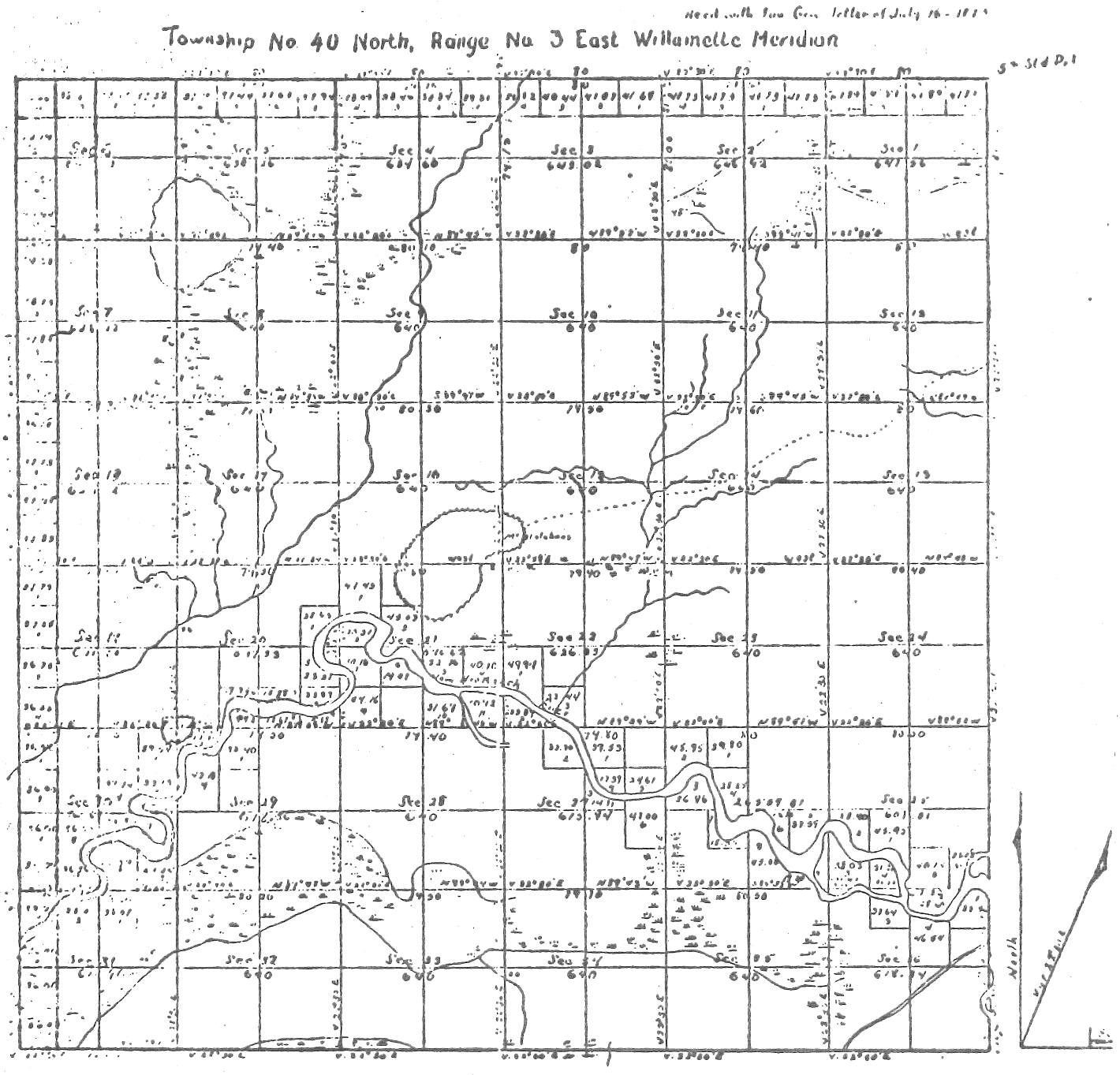
The Influence of Cultural Conditions

As soon as new farmers had investigated the forests and clearings and found an area they wished to homestead, they moved from temporary locations on Bellingham Bay or on the bank of the Nooksack to their homes. As Trewartha suggests in his study of colonial America, "When individualism was strong and land cheap, economic motives frequently outweighed the appreciation of greater security to be gained through village settlement."[22] Such was the case with the earliest settlements of the Nooksack pioneers. Individualism, coupled with a non-hostile Indian population, gave little encouragement to agglomeration in villages.

The hold the settlers eventually established in the Nooksack Lowland plain was similar to the hold many of them had established in other agricultural regions of the United States. Most American lands west of the Appalachians had been surveyed and the pattern of settlement made to conform to the township and range grid pattern introduced by the United States Ordinances of 1785 and 1787. However, at the outset, the Nooksack Lowland had not been surveyed for those who established farmsteads before the government surveys of the early 1870s. The earliest township maps of the county made at that time show the distribution of swamp lands, prairies, and other features.[23] For example, near Lynden are shown the locations of the McClanahan settlement on a prairie, a trail through the area, streams, and the Nooksack River. (See Map 3) A survey of October 21, 1871 of the Ferndale area shows two settlements, those of John Tennant and Thomas Wynn. (See Map 4)

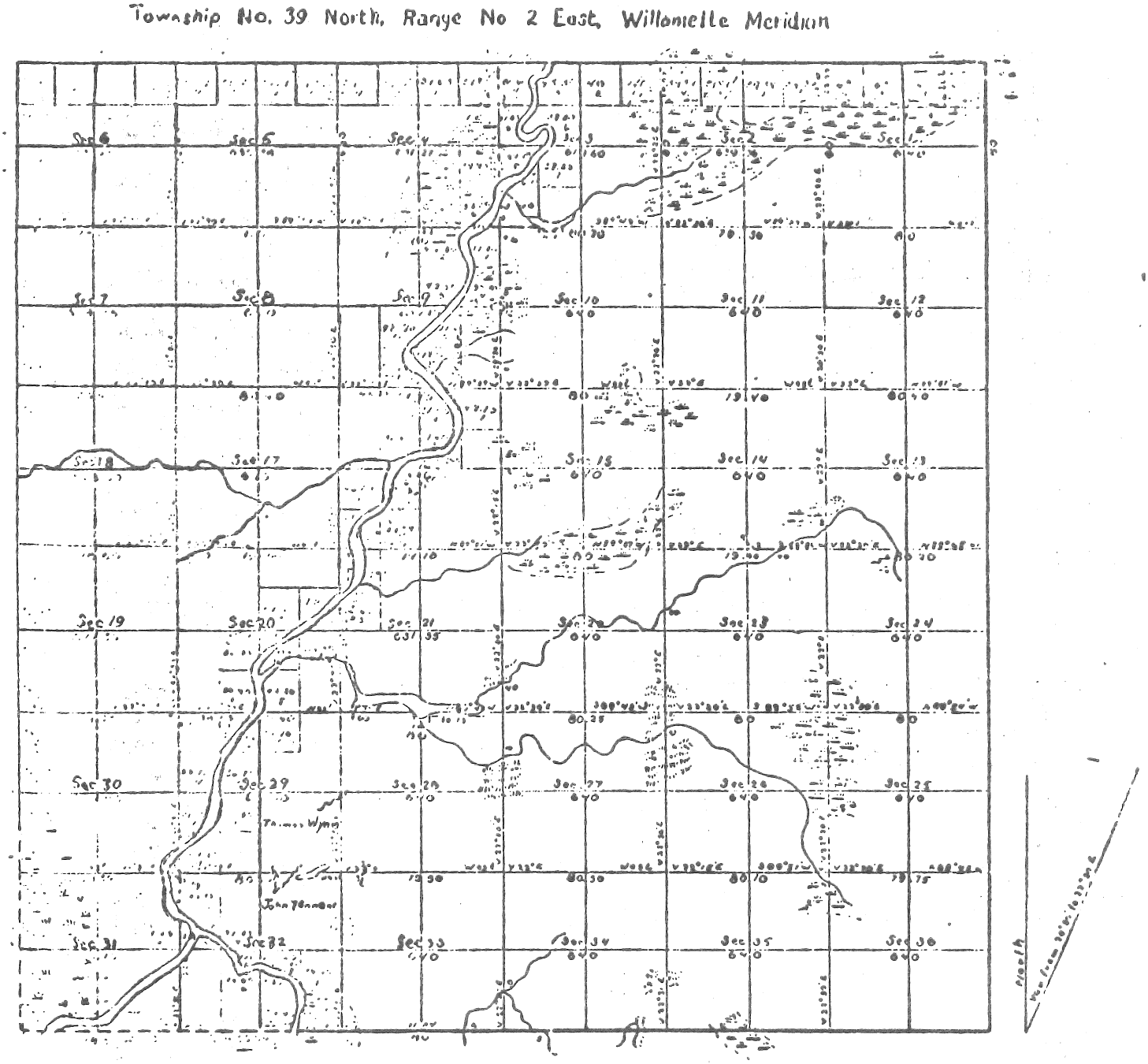
Because the settlements established in the lowland were based on agriculture, ample acreage was claimed by the settlers in order to graze

MAP 4



Copy of Township No. 40 North, Range No. 3 East, Surveyor General's Office, Olympia, Washington Territory, July 16, 1873. The McClanahan settlement may be seen as well as the prairie upon which it was located. To the southeast is a smaller prairie; the homestead of Colonel Patterson and later Holden A. Judson was located nearby. The city of Lynden was platted in the southeast and southwest quarters of Sec. 20.

MAP 5



Copy of Township No. 39 North, Range No. 2 East of the Willamette Meridian, in the Territory of Washington, Surveyor General's Office, Olympia, Washington Territory, February 21, 1872. The surveyed claims of John Tennant and Thomas Wynn, settlers in the Ferndale area, are the only claims which appear.

cattle, raise hay, and cultivate fruit and vegetable crops. As the United States government allotment was 160 acres for homesteads, the original farmsteads were generally of that size[24] and they were dispersed throughout the region on the choicest pieces of land.

The earliest movements to the lowland resulted in "squatters" claims on those lands deemed best by the settlers (as the first surveys had not been undertaken).[25] Many of the earliest claims were not officially recorded until ten to fifteen years after their establishment.

After the townships had been surveyed, settlers twenty-one years of age and older were able to claim the 160-acre blocks allowed under the Homestead Act of 1862.[26]

By 1877, the major settlements of the Nooksack Lowland were located in the Lynden and Ferndale areas with other concentrations near the present towns of Everson and Nooksack. In the vicinity of Lynden there were approximately thirty settlers, and in the Ferndale area forty to fifty.[27] Although small market centers had begun to grow with the settling of the lowland, the pattern of settlement remained one of dispersed agricultural settlements of approximately 160 acres laid out according to the national grid of the township and range system.

Farms and Houses

By the time Washington Territory had attained statehood on November 11, 1889, many changes had been effected in the Nooksack Lowland. That landscape first viewed by the early pioneers, with extensive Douglas fir forests and scattered clearings, had given way to a landscape that included cultivated fields, homes, improved roads, and market centers. In that year the pioneer farmer, the main agent of change, was being joined in his endeavors by other settlers in changing markedly the appearance of the Nooksack Lowland.

Isaiah Bowman has pointed out the unique characteristics of the pioneer:

> Pioneers are all sorts of people, a cross section of society at an advancing border; but they are principally young folks with children. Those that succeeded are strong and hopeful and confident, willing to buy their dreams with hard labor. In this sense, pioneers are settlers upon the land whether

> for agriculture or grazing, not hunters or mineral prospectors or traders or missionaries, though all these may be the bold forerunners of land-hungry pioneers. The land-tilling pioneer is at once a homemaker and a breaker of the mold of the society that he left behind.[28]

To describe adequately and interpret correctly the first settlements of the pioneer agriculturalist leads inevitably to a study of the farms which were established and the buildings which were erected by the pioneer.

Kniffen and Glassie in their now classic study of the eastern United States stress that understanding the importance of the methods of constructing buildings is basic to settlement geography.[29] They feel settlement studies should consider not only methods of building construction, but also the types of buildings constructed, fences and fencing practices, field forms, agricultural practices, and other aspects of rural settlement.

Brunhes in another classic work has pointed out that houses are "pre-eminently a geographic phenomenon," and that:

> Of all the phenomena connected with the satisfaction of essential human needs it is the one with the greatest geographical significance, and we shall see before long that it has to be an object of very special consideration. In the geographical hierarchy of human phenomena dwellings hold an exceptional place. They do so all the more because every form of human labour on the earth's surface involves the setting up of buildings of some kind even if only temporarily or from time to time. . .[30]

Spencer has reasoned that "house types are one of the many individual expressions of culture that man implants on a landscape . . . that a close study of house types is therefore an integral part of regional economic geography."[31]

The present study accepts each of these interacting viewpoints, and finds that the facilities men built while occupying the Nooksack Lowland were not only an important part of the visible transformation of the land from natural landscape to cultural landscape, but above all are basic to any study in settlement geography.

Farms and Farm Buildings

In November, 1893, the Whatcom Reveille published a farm edition which gave short accounts of the farms and farmers in Whatcom County. From this, Roth was able later to compile a list of the earliest settlers, the size of their farms, and other items of interest about them. Of importance is the account of farm sizes, which appear to have varied from ten acres of cleared land to stock ranches of 100 to 160 acres. Of interest are the following:

> Sol Allen, of Lummi, came to the coast in 1852 and to Bellingham Bay in 1858, and settled on his place at Lummi in 1864. He holds 60 acres of upland, 40 acres improved, six acres of orchard, and fine house and barn, no capital, and is married. He was a Fraser River miner.
>
> J. Aitken, Enterprise, came in 1878 from Illinois, homesteaded 160 acres upland and bottom land, 15 acres improved, two acres orchard, fine house, good barn, no capital, family.
>
> M. J. Clark, Lummi, came in 1879 from California, purchased 159 acres of land and turned it into a stock farm, and Mr. Clark sometimes has as many as 50 or 60 horses on the place and keeps 15 to 20 head of cattle.
>
> Mary Harkness, Everson, came to what was then the Upper Crossing of the Nooksack in 1878 from Michigan. She is the widow of John Harkness, who died in 1892. When they came they had no capital but were the fortunate owners of nine cows, from which they made considerable, as the market for butter was good . . . She is entitled to the honor of being called "Mother" of the upper Nooksack country, for many have reason to remember her kindness in sickness and in trouble . . .
>
> John Matz, Ferndale, came in 1875 from Minnesota, and took up a homestead of 308 acres which is said to have been one of the best worked farms in the county.[32]

The most important structure of each farmstead was the house. After the completion of the house, other farm buildings such as barns, dairies, and root cellars were erected and lands cleared nearby. The process involved in developing a farm is aptly explained by Andrew Smith who states that:

> After the pioneer settler in this section of Washington Territory had made the selection of a homestead, his first act of self-preservation was the creation of a cabin or house. The entire building had to be manufactured and assembled from the forest, which covered practically the entire countryside. With his home thus established, he began clearing land for a garden and orchard. Then by enlarging the clearing of land, and seeding it with timothy grass, he gradually acquired

> sufficient hay and pasture land to support a small band of cattle. But to move the produce he raised on the farm to its proper destination required some method of transportation. There were no horses, except at a considerable distance from our locality, but as soon as possible, each settler acquired a team or yoke of oxen, and as a conveyance a home-made sled . . .[33]

Of the earliest agricultural settlement in Lynden, Judson writes:

> The Colonel [Patterson] had set out a small orchard and made other improvements. The cabin was very small and rough, but there was a fine milk house, built with double walls filled with earth, which kept it very cool. It was lined with white muslin, and revolving shelves held the milk pans.[34]

Judson says nothing of the erection of a barn for the dairy herd, but she does state that, "For the safety of the stock, the corral was built near the house, with fences almost as high as the eaves."[35] It should be noted that cougars, bears and wolves preyed upon the livestock of the early settlers, therefore fences or other barricades were important for their safety until a suitable barn could be constructed.

As Smith, Judson and others have indicated, the construction of a barn was but one of the many tasks facing the settlers, yet it appears that the building of a barn was of secondary importance during the establishment of a homestead. Usually the barn eventually built was used for the storing of hay and grain, as well as providing shelter for the stock. A milk house or root cellar, where dairy products and vegetables could be kept in a cool place, chicken coops, hog pens, and other small buildings were other farm buildings constructed on many farms.

Generally, the following observations may be made about the out buildings of the average farm: 1) The functions of these were generally agricultural with most of them built for shelter and storage; 2) their sizes varied and many were as large as the house and some much larger;[36] 3) they were not attached to the house and were generally 20 to 200 feet from the house; 4) they were constructed almost exclusively of wood; 5) their form was usually a rectangular structure with either a gabled or a shed roof.

One of the earliest barns constructed in the lowland--the Berthusen barn near Lynden--is still standing, having been incorporated later as

part of a much larger barn built in 1901. (See Figures 20 & 21) The original barn, built in 1887, and some twenty-four by forty feet in size with a basement, is considered large for that period.[37] Roth in her biographical sketch of Hans Berthusen notes that:

> It was built of split lumber from the giant cedars which stood on the place, as at that time there were no sawmills near and there was no road by which lumber could be hauled from the old mill on Whatcom Creek. In 1901 he built a new barn, one hundred and twenty-eight feet by one hundred and eighty-eight feet in size and fifty feet high, with a large basement. It was built by himself, is unique in construction, and is believed to be the largest and most commodious barn in Whatcom county. The live stock, all machinery and crops are under one roof, the building being conveniently arranged with this in view.[38]

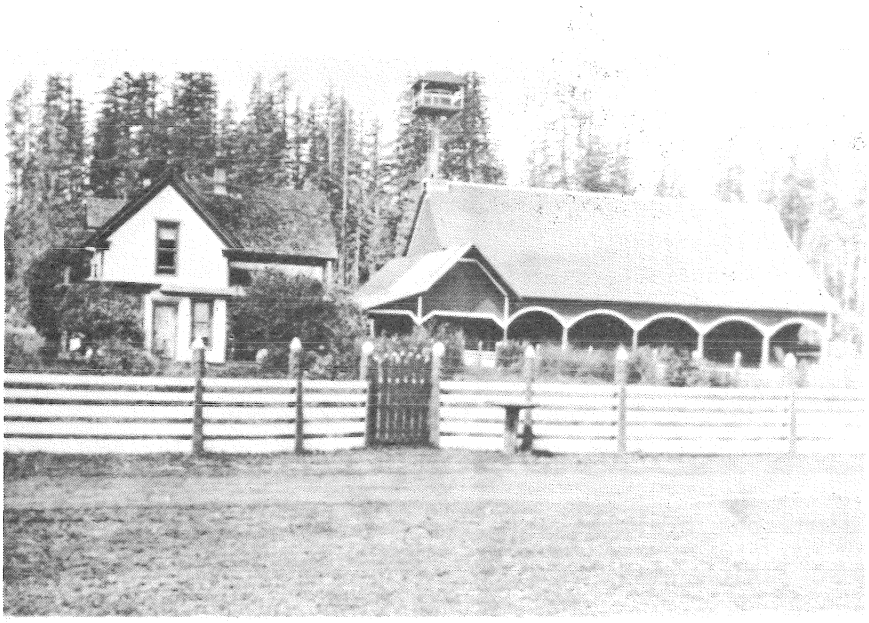


Figure 20. The Berthusen home, with barn in background. The smaller gable-roofed portion of the barn (center) was built in 1887 and incorporated as part of the 1901 structure.

Figure 21. A rear view of the Berthusen barn near Lynden, 1905. Bertrand Creek is in the foreground.

In 1884 the first sawmill was established in Lynden and among the first buildings built with the lumber was the Hawley barn. (Fig. 22) Hawley's description is:

> Have you ever noticed it, the old red barn on the R. E. Hawley property on East Grover Street? Built in 1884 with some of the first lumber cut by the Robinson and Maltby Mill, the second mill north of Bellingham Bay, the barn is one of the oldest buildings in Lynden.
>
> The roof of the barn is hand-made shingles which were split and shaved by Hans Berthusen and Chris Tobiasen and taken in trade at the Pioneer Store. The price of the shingles was $1.50 per thousand, and a dollar and a half represented a hard ten hour day. The roof has never been repaired, yet the shingles with their thick covering of moss, still turn the rain no matter how hard it pours. On top of the barn

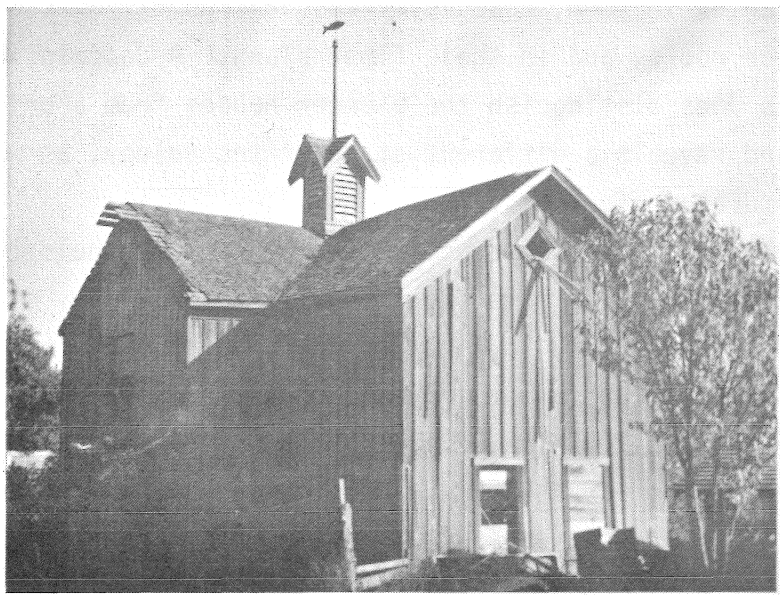


Figure 22. The Hawley barn, Lynden, built in 1884 with some of the first milled lumber in the lowland. The barn was razed in 1945. (Jeffcott Collection)

> is a cupola and on top of the cupola is a fish weather-vane, made of cedar. For forty-five years neighbors have watched that fish to see which way the wind blows.[39]

The Hawley barn was razed in 1945.

Houses

The first home of virtually every pioneer was a log cabin constructed of timber from the nearby forest. Many of the pioneers were prepared for cabin building and in the mid-1800s most of them had probably lived in or observed such structures in their former places of residence.

The log cabin was introduced into the New England colonies as early as 1638 and was utilized by the frontiersmen in most forested areas of America.[40] According to Garth, they were easy to assemble as a temporary residence and their "simple construction and the fact that the broadax was the only tool required, made them highly practical."[41] Most settlers considered their log cabin to be a temporary shelter and it was usually superseded within a few years by a more substantial frame structure.

Little local information has been compiled regarding the influence of physical or cultural factors on early home building in the lowland. Log cabins varied in form, especially in their number of stories, the shape of their roofs, and in their floor plans. A description of form and materials does distinguish the pioneer houses from aboriginal structures and reveals a different stage of technology, as well as distinct cultural preferences.

Obviously, the cabin's principal functions were shelter, storage, cooking, and occasionally some light manufacturing. Many of the earliest log cabins in the Nooksack lowland served temporarily as multiple-family units when friends or neighbors moved into the lowland and were housed with one another until their individual cabins were ready.

The process involved in preparing a cabin for habitation is found in an early account of a settler on the South Fork, who states that:

> By late fall our cabin was finished, and we moved into it, and had a good supply of wood stacked under the shed beside the house. We had one room, 12 feet square, a rag carpet on the floor, partly for warmth, for every board was split from cedar logs, and not so smooth and tight as mill lumber. The walls were the logs, chinked as tight as possible with moss, and covered with old newspapers . . . We had made our beds, table, stools and benches and a lamp stand. Also the few packing boxes were utilized for dish cupboards. A wide shelf was built across one corner with a curtain, and made a very good place to hang our clothes. We kept some of our things in trunks which could be left in the shed or on the porch. Our little cookstove also answered for a heater, and stood in one corner, our bed in another. The table and cupboards were on one side near the window, and the sewing machine at the foot of the bed. There was room for Aunt Mary's rocking chair too.[42]

It should be noted that most cabins were larger than twelve feet square. Most, however, were one-roomed, although some were partitioned within either by sawn timber walls or by curtains. Several examples of log cabins will be discussed according to their method of construction.

Kniffen and Glassie in their study of the eastern United States found that the fundamental distinction in horizontal log, timber, and plank construction is the manner in which the wooden members are joined at the corners.

> The basic difference distinguishes two all-inclusive groups--the utilization or nonutilization of corner posts or supports to which the horizontal members are attached. To the second group belongs the method commonly used in American log houses, in which timbers are so notched at the ends they become immovable when locked to the timbers above and below.

They continue:

> All horizontal construction may be descriptively classed as having either even tiers or alternating tiers. In the first group the timbers of the corresponding tiers of the four walls lie even with one another; in the second the timbers in one wall lie half a thickness above or below those of the corresponding tiers in the adjoining walls. This latter relative position is inherent in all "true" corner timbering.[43]

Of the Nooksack Lowland data collected, it appears that a majority of the log cabins constructed were built of alternating timbers with "true" corner timbering.[44]

Four types of log cabins constructed in the Nooksack Lowland may be distinguished on the basis of corner-timbering--the square-notch, dovetail, saddle-notch, and V-notch.[45]

Found extensively throughout the Nooksack Lowland was the square-notch cabin. Many were built of hewn cedar planks which were sometimes locked together with pegs or nails. One such square-notch cabin built in 1872 is described in the following account:

> This home was constructed entirely of timber found on the site. First they cut and split cedar logs twenty-four feet long. These they hewed down to five inches thick to form the walls. For ceiling, floors, and doors, they selected straight-grained timber, which they split into inch boards, some of which were as long as twenty feet. Every bit of the building . . . was built from trees on the ground; we bought nothing but the nails, window glass, locks and hinges and when all was ready we called a "raising bee" and neighbors came from miles around and put up a frame in one day, accompanied by a big feast and jollification.[46]

Two fine examples of the square-notch cabin are the John Gischer and William Slade homes. The Gischer cabin (Figure 23) was located on a prairie near the eastern shore of Birch Bay and built in 1872 by Gischer himself. Being a wood carver, his skill is evident in the workmanship shown in the building. The Slade home (Figure 24) was built in 1874 in Lynden, together with a lean-to addition, a common characteristic of most log cabins.

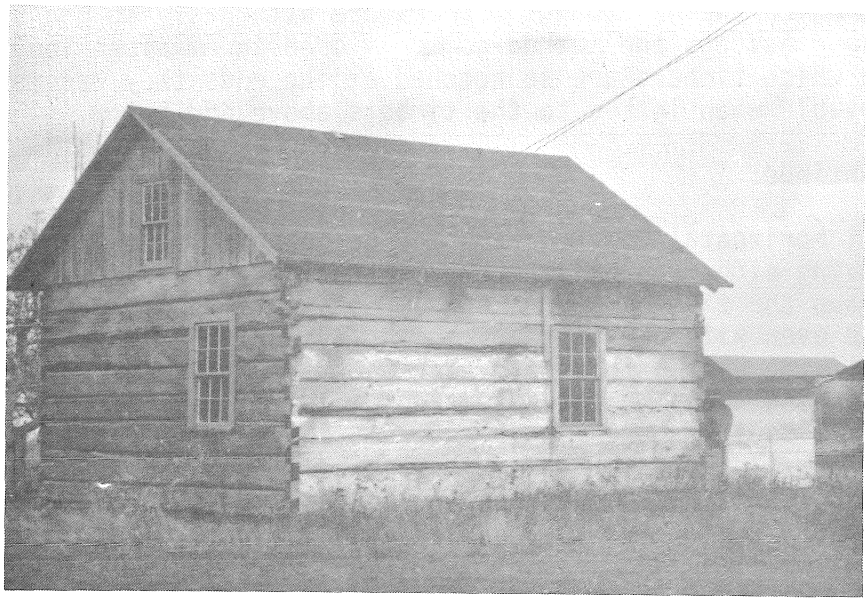


Figure 23. Square-notch cabin located near Birch Bay. Note the alternating tiers and fine workmanship. (Jeffcott Collection)

Figure 24. The original Slade home in Lynden, also built of alternating tier and square-notch construction. Note the lean-to additions. (Jeffcott Collection)

More roughly-hewn examples of the square-notch cabin are the Olson and Bremner homes which were located in the Delta township. (Figures 25 & 26) The latter home constructed in 1880, also served as the first Delta post office.

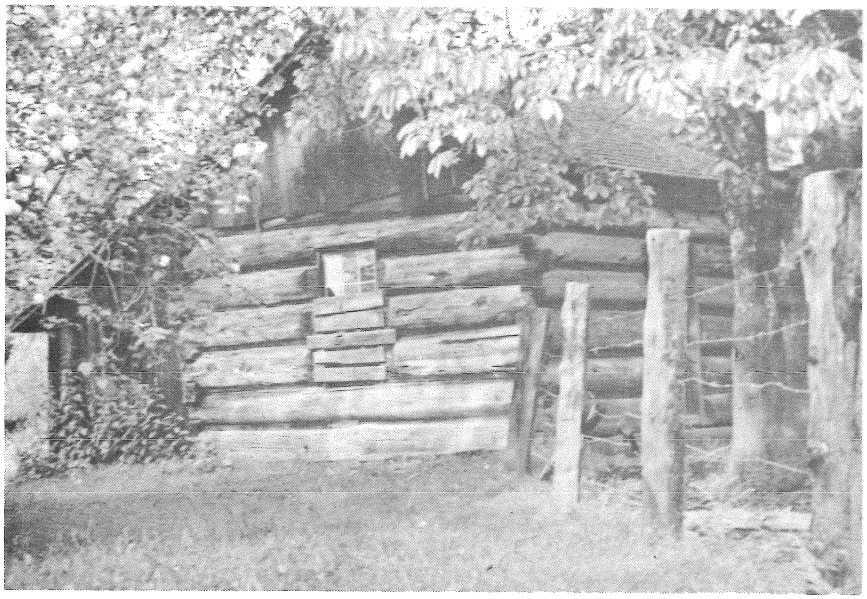


Figure 25. Olson home, Delta. (Jeffcott Collection)

Figure 26. The George Bremner home, built in 1880. The square-notches extend at the corners; a lean-to has been added. This home served as the first Delta post office. (Jeffcott Collection)

Other square-notch cabins include a two-storied cabin built by Bill Johnson (Figure 27) who settled in the Hopewell area (north of Lawrence). The photograph shows hewn logs, approximately six inches thick, which have square, inter-locking joints at each end. Some pieces overlapped, but most were eventually cut flush with the walls instead of being allowed to protrude.

Figure 27. Square-notched log cabin of Bill Johnson who settled near Hopewell. Note the porch additions, steep roof and central chimney. (Jeffcott Collection)

Another two-storied, square-notch log cabin was that of the Pangborns who settled near Barnes' Prairie in the Clearbrook area. (Figure 28) This cabin is unique in that its modified hip-roof was uncommon, if not quite unknown, in other log houses in the region.

Fully dovetailed structures provided perhaps the best constructed cabins. Two examples of full-dovetail construction are the George Goodwin home (Figure 29) and the Tom Nicklin home. (Figure 30) The Goodwin home located near the Crossing (Everson), was built in 1881. Jeffcott says of Goodwin, "He was an expert with a broadax and found

Figure 28. Pangborn Home near Pangborn Lake is a unique example of the "box architecture" using hand-hewn, square-notched timbers. Note the modified hip-roof. (Jeffcott Collection)

Figure 29. Full-dovetail workmanship of George Goodwin, Everson. The Goodwin home was built in 1881. (Jeffcott Collection)

ready employment in the vicinity, building for the settlers hewed log houses of exceptionally fine workmanship."[47] The dove-tailing method eliminated the use of nails or pegs as the logs were cut in such a way that they inter-locked with one another. Figure 29 reveals the intricate workmanship involved in cutting and fitting the joints in full dove-tail construction.

The Nicklin house (Figure 30), located at Roeder, shows the overall construction of a dove-tail home. As in most cabins, the gable roof was constructed of rafters made of poles four inches in diameter, covered with split-cedar shingles.

Figure 30. Tom Nicklin home, Roeder (near Everson) shows the overall construction of a dove-tail home. (Jeffcott Collection)

Saddle and V-notched log cabins were common types of structures, usually associated with the earliest settlements in the lowland. However, with abundant and easily-split cedar and proper tools available to the pioneer, it appears that such notching was not as widespread as formerly believed.

Jeffcott says of the notch-log cabin:

> A house--almost always a log cabin--was the first essential. This he constructed on a usually 16 x 24 foot single room and

> attic plan . . swinging his trusty ax he cut his logs to proper length from trees about ten inches in diameter and notched them at each end to half the diameter in depth. The logs all prepared, having selected a level site for his cabin, with chain and his oxen he snaked the logs in . . . The settler by main strength proceeded to lay logs alternately, two side logs, then two end ones. Door and window openings he cut out as the logs went up. For gable ends he used logs beveled at both ends to the pitch of the rafters . . . For rafters and runners he used small poles . . . the roof was constructed of shakes or clapboards . . . Cross poles for ceiling joists were mortised into the top side logs and split cedar slabs laid on these served for both ceiling and attic floor.[48]

Three examples of saddle-notched log cabins are shown (Figures 31, 32 & 33). All are believed to have been located on the North Fork of

Figure 31. Two-storied notch-log house located on the North Fork. (Whatcom Museum)

the Nooksack. According to Pillsbury and Kardos' typology of cabins, all three examples appear to have been fashioned after the Swedish form which has overlapping corners and no spaces between the alternating tiers. Furthermore, the fact that none of the logs go to the peak, but rather to the plate, shows the influence of the Germanic tradition.[49]

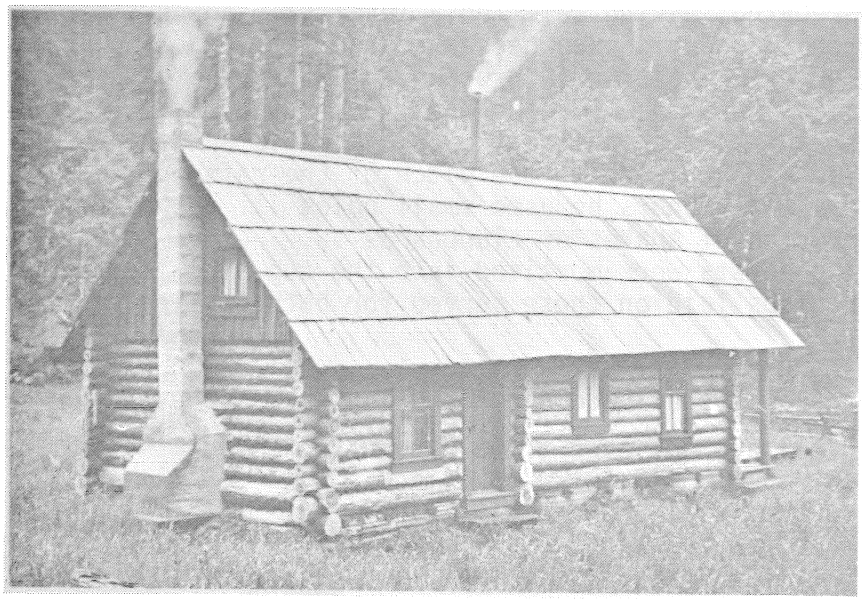


Figure 32. Example of the notch-log cabin. (Whatcom Museum)

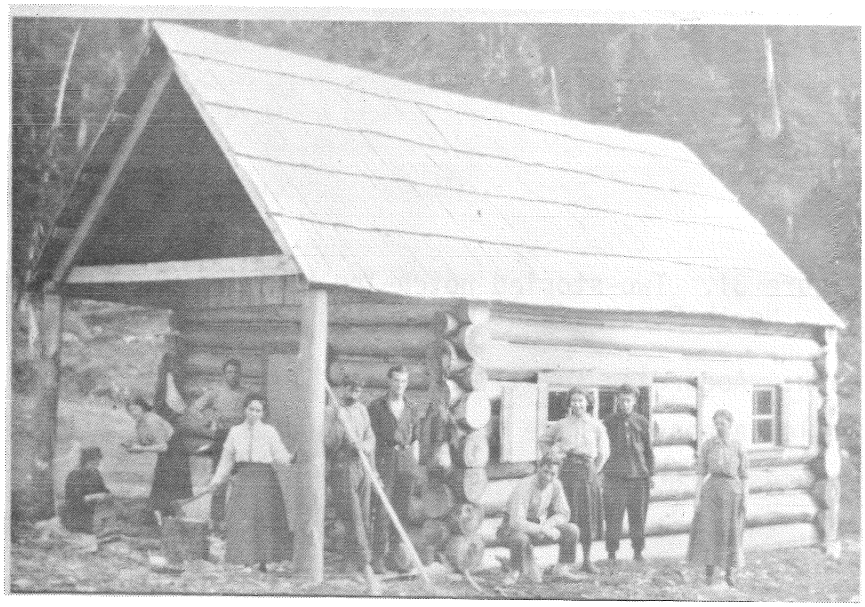


Figure 33. Notched-log cabin which utilizes an extended roof for a porch. Note the size of the logs used. (Whatcom Museum)

The earliest log cabin in Lynden--the Judson home which was built by Colonel Patterson circa 1860--was located on the Nooksack prairie adjacent to the present site of Lynden (Figure 34). The original notched-log cabin and its addition, built in 1870, were made from hewn timbers. Judson says of the addition:

> Mr. Judson and Ned Barnes, a man we had brought with us for that purpose, set to work at once to build a hewed log house. The old part, in which was a large clay fireplace (the stick chimney running up on the outside) we used for a dining room and kitchen. We sent to the head of the sound and procured bricks for a fireplace in the new part, and soon found ourselves comfortably domiciled.[50]

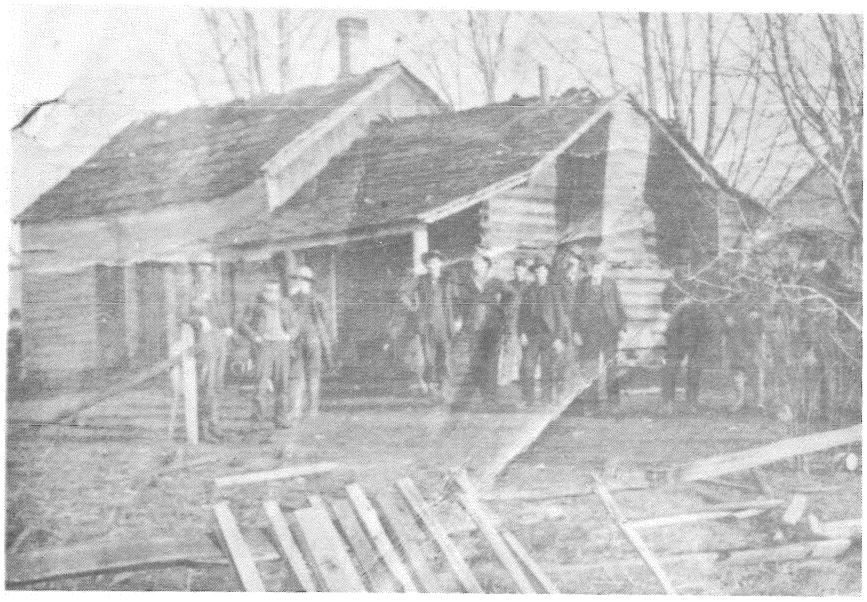


Figure 34. Judson home, original structure in foreground built circa 1860, addition built in 1870. The first home to be built in Lynden, one of the earliest homes in the Nooksack Lowland. (Jeffcott Collection)

It appears that the alternating tiers of the original may have been notched with a V. However, it is difficult to determine from the photography what method of corner timbering was used in the 1870 addition which is to the rear of the photo. After this picture was taken, a further lean-to addition was made to the house. An example of the

v-notched cabin is shown in Figure 35. Unfortunately, its location is not known. In this photo the V-notch is more discernible. Other V-notch cabins found to have been built in the lowland include the C. Meacham home, Hannegan Road south of Lynden; the John McKaskel home, Nooksack Crossing; and the M. T. Tawes home, Ferndale.[51]

Figure 35. V-notch construction is evident in this early photo. (Whatcom Museum)

The Establishment of Towns

A phenomenon associated with the movement of settlers to agricultural lands in the Nooksack Lowland was the growth of market towns. The largest of these towns in 1890 were Ferndale, Lynden, Nooksack Crossing (Everson),[52] and Marietta. (See Map 3) Other locations where townsites were platted or post offices established include Nooksack, Delta, Enterprise, Yager, Clearbrook, Wesley, Kingsboro, Northwood, Van Buren, Timon, Lawrence, Hollingsworth, Deming, Van Zandt, Hopewell, and Goshen.

Various factors contributed to the location of trade centers, and may be broadly distinguished as physical, economic, and cultural factors.

Physical Factors

The riverine influence was the most pronounced of the physical factors affecting settlement at various sites on the Nooksack. Of the towns of Ferndale, Lynden, Everson, Marietta, and Nooksack, all are either located on the river bank or have easy access to the river. As previously explained, during the period of initial settlement in the lowland, the Nooksack functioned as the major transportation route for the settlers and it continued to fulfill that role for at least thirty years. A trade center at Nooksack Crossing was first located near a ford of the Nooksack on the route of the Whatcom Trail. Ferndale and Lynden were both located at a later date near those points where large jams blocked river passage and where it was necessary to disembark from canoes. Marietta was located near the mouth of the Nooksack at a point where passengers moving up or down the Nooksack changed from salt-chuck or saltwater canoes to to shovel-nosed canoes, or vice-versa.

Near all of the building sites were available water, abundant building materials, and firm ground for building. Detrimental to building on the river bank were periodic floods, many caused by ice and debris jams.

Economic Factors

The Nooksack as a transportation route may also be considered a major economic factor affecting the location of towns for it provided access to adjacent rich agricultural lands as well as a route for trade with the settlements on Bellingham Bay until as late as the 1890s.

The towns which grew along the Nooksack functioned as trade centers for the settlers and Indians who inhabited the adjacent lands. Diversified services were not the rule until ten to fifteen years after agricultural settlements were established in the 1860s.

About 1871 B. N. McDonough moved his store and post office from Lummi to Marietta[53] and by 1874 he had established another store at Nooksack Crossing.[54] A trading post, which was run by William Moultray, had been operating at Nooksack Crossing for several years.[55] McDonough not only controlled the trade with the Indians at Marietta and at The

Crossing but an increased trade with settlers in the area as well took place as his services were extended into the lowland.[56] In 1874 the first store in Lynden was established by the Enoch Hawley family. Hawley relates:

> Mother had an opportunity to sell forty acres of land which she had acquired in Iowa, for four hundred dollars, so she decided to put in a small store, using one room of our dwelling for the purpose. The four hundred dollars seemed sufficient to put in a variety of dry goods and a grocery line such as was needed at that time. It was called the PIONEER STORE and was rightfully named, as it was the first store this side of Bellingham.[57]

The greater part of the business at Lynden was with the Nooksack Indians who traded furs, hazelnuts, and cranberries for goods. The settlers in the area also traded furs as well as agricultural products, including butter.[58] (Figure 36)

Figure 36. The first store building in Lynden was the Hawley home of which one room was used to handle the merchandise. (Jeffcott Collection)

In 1878 a trade center was located at Ferndale by A. A. and Darius Rogers who built a store, hotel, and several houses; in 1882 a sawmill and cannery were operating also.[59]

By the 1880s ferries were providing their services to all of the major settlements on the Nooksack. The earliest ferry was located at Nooksack Crossing during the Fraser gold rush in 1858, and--as with other ferries--eventually provided passage across the river for horses and other livestock, wagons, and foot travelers.[60]

Hawley says of transportation to Lynden:

> By 1884, passenger and freight transportation between Bellingham Bay had increased to a point where Indian canoes and corduroy roads were no longer adequate. We needed steamboats that were suitable to the swift waters of the Nooksack to make regular trips.[61]

With jams in the Nooksack removed by 1877, steamboats began regular service to Ferndale in late 1878 or early 1879,[62] and in 1881 a steamboat went upriver as far as Lynden. It was shortly after 1884 that regular service to Hawley's Landing near Lynden was begun, and in 1888 it is reported that the steamer Triumph was built in Lynden.[63] Other steamers were built at later dates. Marietta was also a port of call for the steamers.

During this same period a more conscious effort to build better roads into the lowland began. The Telegraph Road--built in 1865--was no more than a pack trail until 1876 when it was widened sufficiently to allow the passage of a wagon from Whatcom to Nooksack Crossing.[64] Other neglected and inadequate roads were brought to the attention of the County Commissioners by citizens of the lowland, and in 1883 construction began on the Northwest and Northeast Diagonal roads. In 1885 the Northwest Diagonal was completed to Ferndale and in 1884 the Guide Meridian Road was opened as far as the ferry crossing at Lynden.[65] It was not until 1894 that bridges were built to span the Nooksack at Ferndale, Lynden, Everson, and Nugent's Corner.[66] Jeffcott sums up the feelings of the farmers and storekeepers and says: "The lack of roads and other means of travel and transportation was the greatest factor in holding back the development of the Nooksack Valley . . ."[67]

By 1890 the towns of Everson,[68] Ferndale, Marietta, Nooksack, and Lynden had been platted, some of them in anticipation of attracting a railroad. The Bellingham Bay and British Columbia Railroad Company (B.B.&B.C.) began laying tracks in 1884. In 1891 the tracks met those of the Canadian Pacific in Sumas.[69] The depot of the B.B.&B.C. was the first building erected in the newly platted town of Everson in 1890;[70] according to Jeffcott, "The railroad was a deathblow to The Crossing; the stores and the 'Harkness House' all moved up to Everson, taking the post office with them . . ."[71] Other station stops for the B.B.&B.C. railroad in the lowland were Van Wyck, Wahl, Goshen, and Central. Roth says,"... . . Clearbrook was the point of departure for a new lumber camp and also for Lynden, although the officers denied any intention of extending the line to that place."[72]

The Great Northern Railroad crossed the Nooksack at Ferndale in 1890.[73] Prior to this a plat for the town of Kingsboro was filed. Kingsboro--owned by the Northwest Improvement Company--was laid out when Ferndale failed to meet the subsidy demand of Eugene Canfield of the Northern Pacific. This location, two miles north of Ferndale, however, was later abandoned.[74]

It should be noted that the railroads provided an obvious economic incentive to those towns or villages through which they passed. It was during the late 1880s that the forest resources of the lowland began to be utilized commercially and by the 1890s the towns became centers for the forest products industry. The railroads also provided services for the farmers and thus encouraged more agricultural production for shipment to a much expanded West Coast market.

Cultural Factors

The growth of towns was also the result of the need for a central place with governmental services, professional advice, better educational opportunities, worship, and diversion.

In 1874 Jam--now Ferndale--was designated by county officials as a voting precinct[75] and it is reported that in the same year a grange was organized at Nooksack Crossing.[76] In 1875 there were post offices

operating at Lummi, Nooksack, Lynden, and Ferndale (Cedar Grove), with another proposed at Portage.[77]

By 1880 Nooksack Crossing, Lynden, and Ferndale had public schools. The first school opened in the lowland was the Nooksack District School at Jam (Ferndale), which had fifteen pupils in June, 1874.[78] In 1886 a Normal School was opened in Lynden with sixteen pupils in attendance; it closed in 1892.[79]

During the 1880s churches were also built for worship, and saloons for diversion. Jeffcott says of Ferndale:

> With a post office, two stores, a hotel, and two saloons, the first of the year 1883 found Ferndale bidding for the mantle of political leadership cherished from the first by Whatcom; and there were soon rumors that the seat of county government might be moved to the Nooksack.[80]

Although Lynden went without saloons, in 1884-85 it was reported that the town had a church and school, a new hotel, warehouses, and a mill company. By 1889 a public library and a newspaper had been established in the growing community and a photographer had set up business there.[81]

Town Morphology

To visualize the street patterns and general layouts which were instituted in various towns in the lowland, it is important to include maps of some of the plats filed in Whatcom County. Therefore, maps of the major settlements--Lynden, Ferndale, Everson, and Nooksack--are provided here. Other town plats filed included: Clearbrook, filed on May 20, 1891 and showing twelve blocks; Marietta, filed on July 4, 1883 and showing four blocks; and Kingsboro and Wesley, the latter filed September 15, 1884 and vacated May 11, 1888.[82]

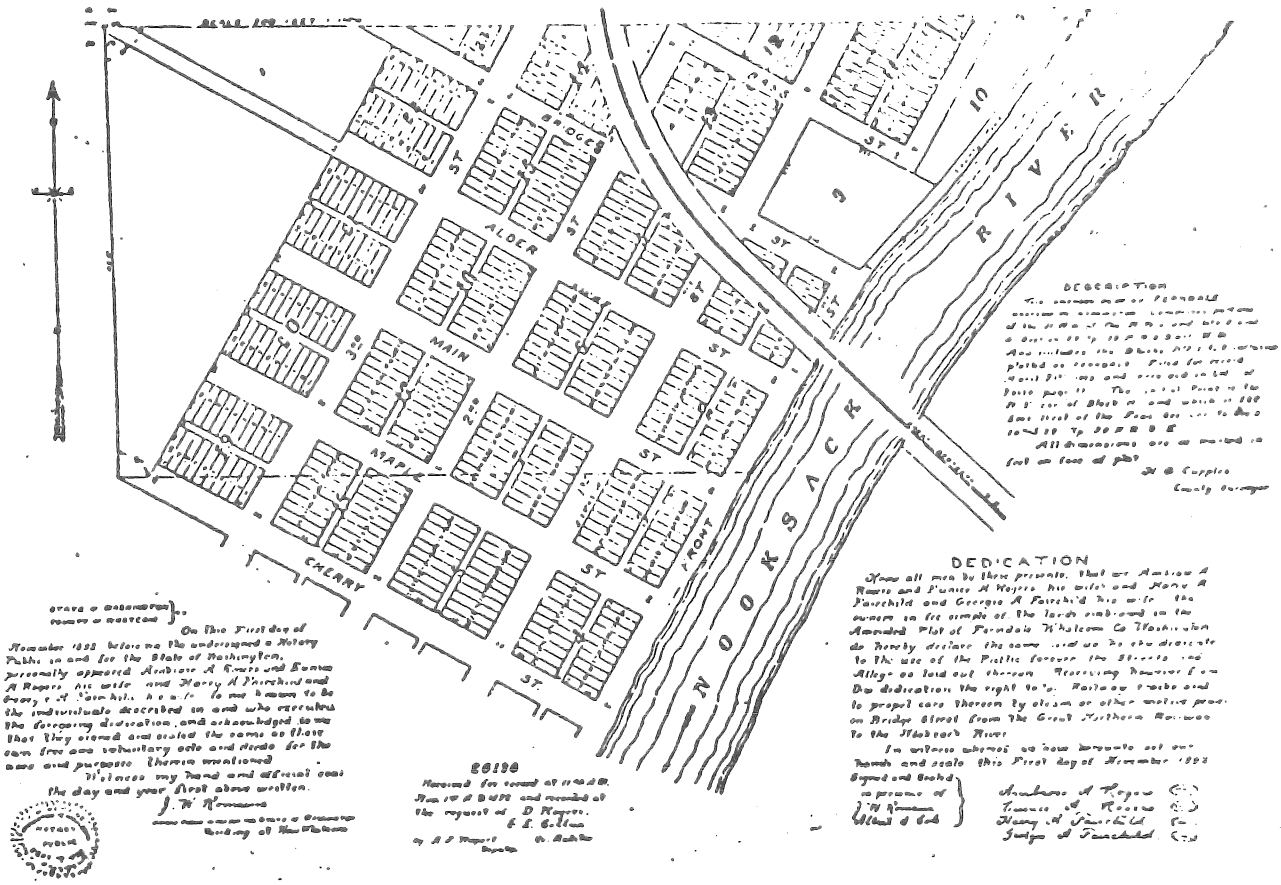
Ferndale.- A plat for the city of Ferndale was filed on May 5, 1883. (Map 7) It consisted of ten blocks with streets 80 feet wide, alleys 20 feet. The lots on Front Street measured 25-by-100 feet and all others 25-by-150 feet. An amended plat was filed on November 1, 1892; this added 13 blocks to the townsite. Blocks 9 and 10--which abutted the county road--were not subdivided into lots.

Historically, however, the development of Ferndale was not limited to the west bank of the Nooksack River. East Ferndale, located on the

106

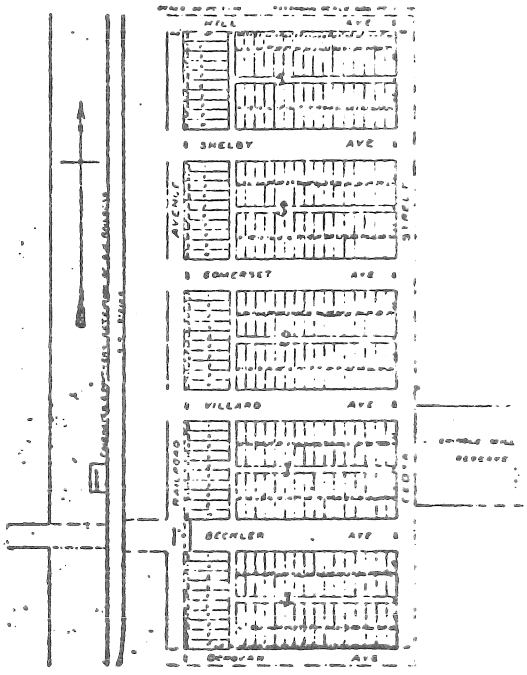
MAP 6

Amended PLAT OF **FERNDALE** WHATCOM CO. WASHINGTON



MAP OF NEW FERNDALE

Whatcom Co. Wash. 1894



right bank of the Nooksack, boasted the first business house in 1878.[83] In 1882 East Ferndale consisted of two stores, two hotels, two saloons, and an office building. All were aligned with the Nooksack River, and major portions of the businesses and land were owned by Darius Rogers.[84]

About 1883 Rogers began to develop a townsite at West Ferndale. According to Jeffcott:

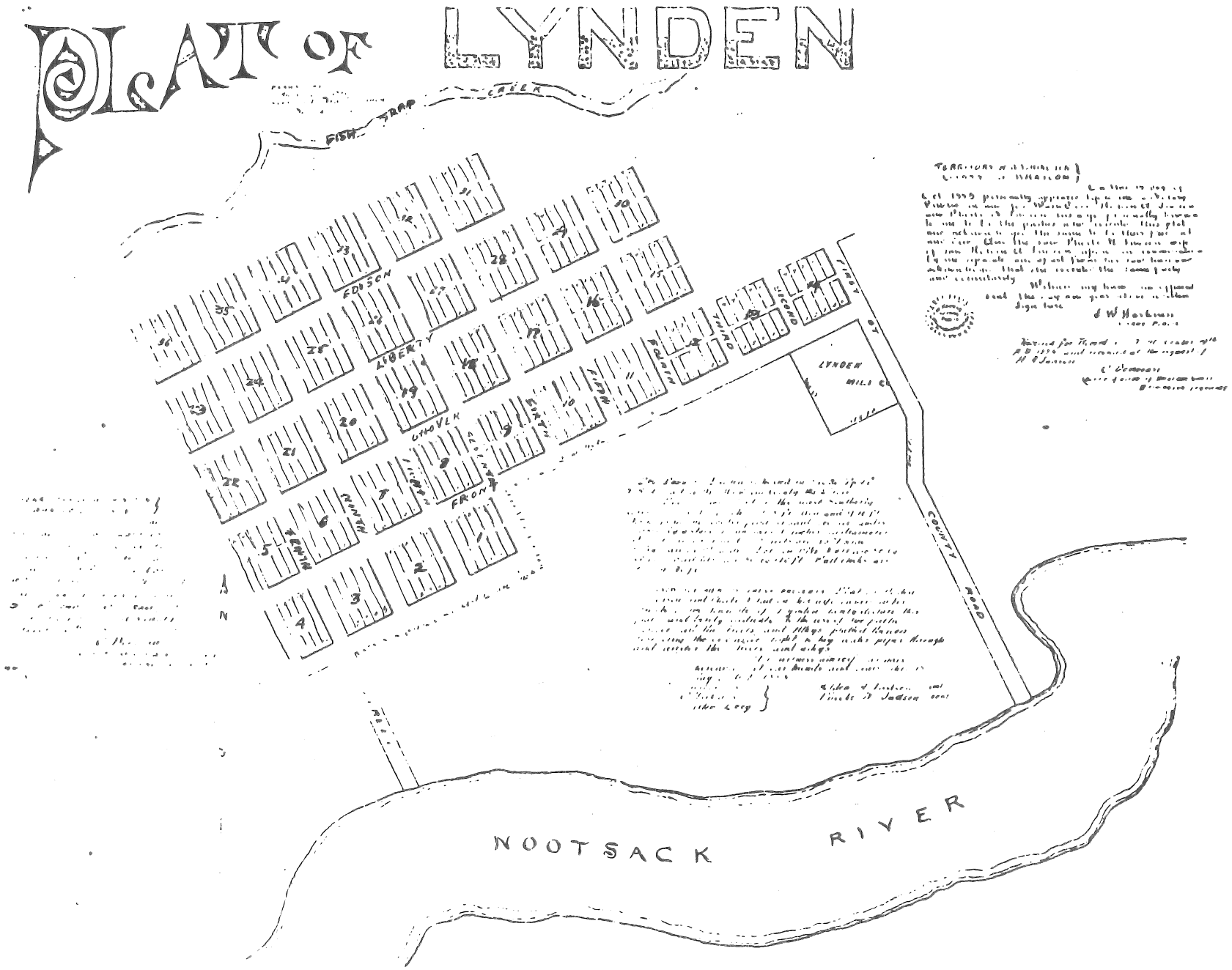
> . . . when Darius Rogers entered the ill-fated steamboat business, John Hardan secured an interest in the purchase of the Gazelle [steamboat] . . . the venture went to the bottom along with the Gazelle. Just what agreement John Hardan had with Darius Rogers cannot be determined, but in the final settlement of the affair, Hardan . . . ended up in possession of all Rogers' property on the east side of the Nooksack and also the ferry. Tom Wynn, who is probably the best informed of the witnesses of the event, says he does not know all the details, but does know that Darius Rogers was, so to speak, swept from the east side of the river as to property rights and ferry. This, then, is evidently the key to Rogers' reasons for promoting with such vigor the interests of "West Ferndale."

Jeffcott further explains that over a period of years, East Ferndale lost its post office and most businesses and

> With the fading of their postoffice, John Hardan and his henchmen seemed to lose heart in the contest, and the west siders gained the upper hand. Seeing the trend, William Sisson moved his store to the west side; and that along with the burning of the St. Charles Hotel and saloon, spelled the doom of "East Ferndale"; and feeling her superiority, "West Ferndale" gradually dropped the "West" and assumed the shorter "Ferndale."[85]

The first commercial enterprises in what is known today as Ferndate were located on the right bank of the Nooksack, adjacent to Front Street. However, Main Street became the major business street for Ferndale following a flood which washed out a portion of Front Street. Portions of Front Street were diked and the road changed.[86] The alignment of Front Street with the Nooksack became the most pronounced feature of the grid-iron pattern of the city.

New Ferndale (Map 6) filed November 25, 1892, assumed the north-south grid-iron pattern. Its blocks were surveyed into lots 25-by-117


PLAT OF LYNDEN
FISH TRAP CREEK
EDISON
LIBERTY
GROVE
FRONT
FRONT ST
SECOND
THIRD
FOURTH
FIFTH
LYNDEN MILLS CO
COUNTY ROAD
NOOTSAC RIVER

feet and its streets 80 feet wide with 16-foot wide alleys. A shingle mill reserve was also set aside. As can be seen on the 1892 plat map, Railroad Avenue is parallel to the tracks of the Fairhaven and Southern Railroad--an extension of the Great Northern Railroad--and runs in a north-south direction.

Lynden.- The plat for Lynden was filed April 2, 1884, George H. Judson, surveyor (Map 7). The town was divided into 36 blocks, each containing 10 lots. Full lots were 50-by-140 feet and full blocks 250-by-300 feet. The streets were 80 feet wide, alleys 20 feet wide. A lot 440-by-366 feet at First and Front Streets was set aside for the Lynden Mill Company. Note that First Street--which joins the county road--and River Street extend to the bank of the Nooksack River.

Front Street extends from the northeast to the southeast along the brow of the Lynden Terrace which is approximately fifty feet above sea level at that point.

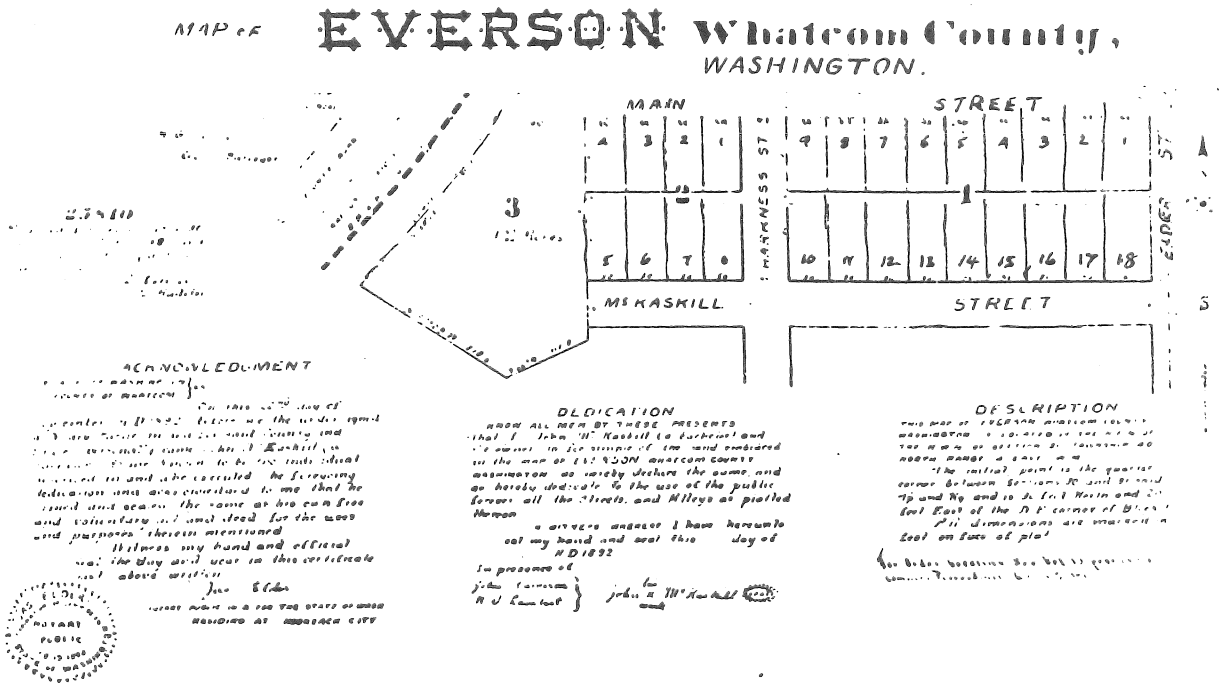
Two other towns were platted near Lynden in 1884, Wesley and Forest City. Forest City was laid out by Hawley and Lawrence one-half mile east of Lynden, and a hotel built by Cline and Smith. Wesley, also east of Lynden, was platted by Lawrence in September, 1884.[87] These plats later became the Hawley, Lawrence, and North Lynn additions to Lynden.[88] These later additions to Lynden assumed a north-south grid-iron pattern.

The orientation of the original plat of Lynden in a northeast to southwest grid-pattern was primarily the result of relief and historic trails through the area.

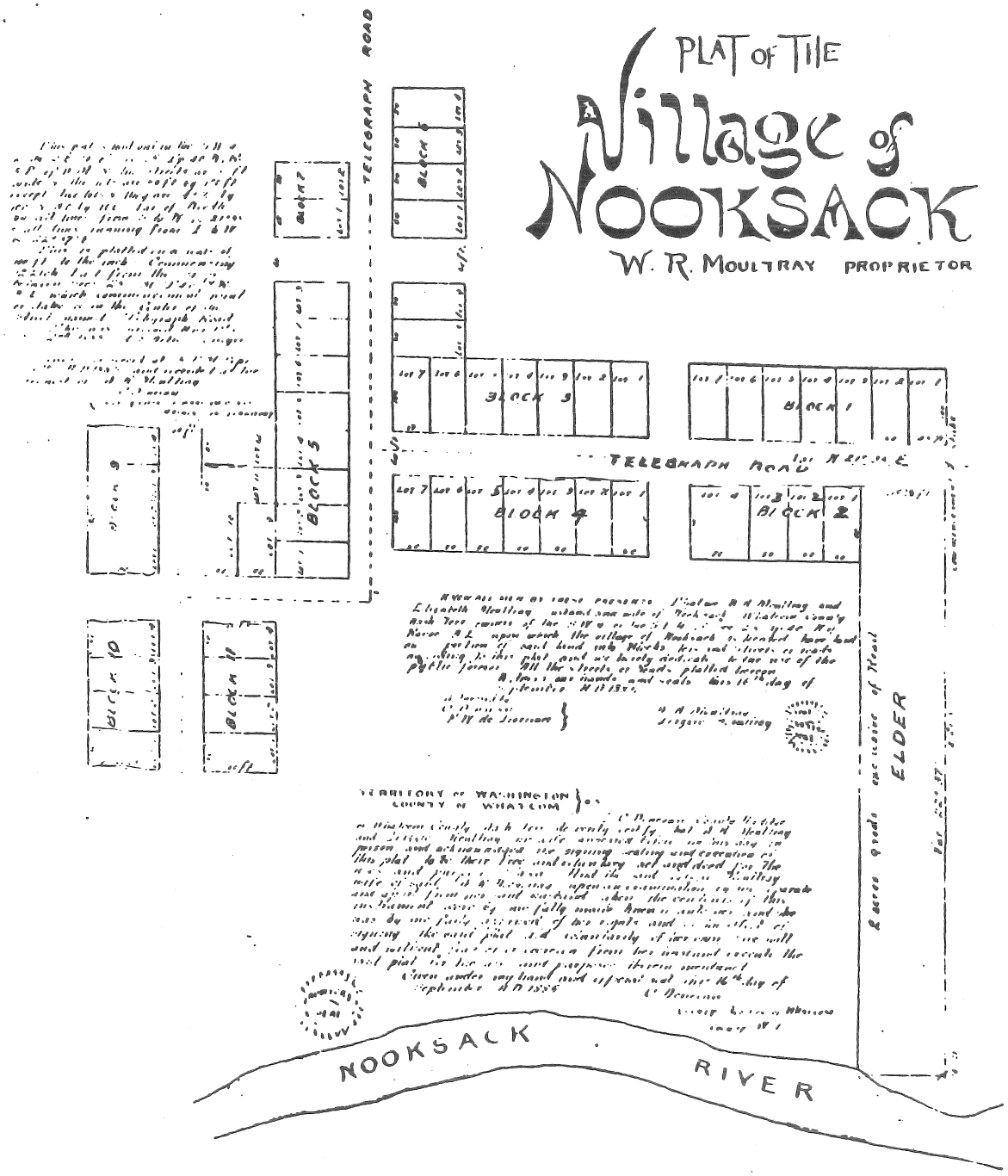
Everson and Nooksack.- Both Everson and Nooksack assumed a north-south grid-iron pattern. Everson, whose plat was filed September 26, 1892, consisted of three blocks. (Map 8) Block 3 was laid out at irregular angles and consisted of approximately 1-1/2 acres. This irregular orientation was chiefly due to the influence of the tracks of the Bellingham Bay and British Columbia Railroad which run northeast to southwest to the west of the platted townsite. To the east the orientation conforms to the north-south pattern of blocks 1 and 2.

Everson townsite lots were 50-by-100 feet, streets 60 feet wide, and alleys 16 feet wide. The entire townsite was located on the left bank of the Nooksack upriver from the earliest settlement in the area,

MAP 8


MAP OF
EVERSON Whatcom County,
WASHINGTON.
MAIN STREET
MANNESS ST.
ELDER ST.
MCKASKILL STREET
ACKNOWLEDGMENT
DEDICATION
DESCRIPTION

MAP 9


PLAT of THE
Village of
NOOKSACK
W. R. MOULTRAY PROPRIETOR
TELEGRAPH ROAD
BLOCK 3
BLOCK 1
BLOCK 4
BLOCK 2
BLOCK 5
BLOCK 10
BLOCK 11
ELDER
NOOKSACK RIVER

Nooksack Crossing. The town received its name from the original homesteader, Ever Everson, who settled there in 1871, and its growth is attributed to the railroad depot located there in 1891.[89]

A plat for the Village of Nooksack was filed on September 16, 1885 (Map 9) and another plat for Nooksack City on July 26, 1890. The latter was filed for the Nooksack Land and Development Company, W. R. and Elizabeth Moutray, owners.

Nooksack consisted of 11 blocks with lots 50-by-100 feet. The roads were 60 feet wide, with no alleys provided for. Elder block was extended toward the Nooksack River and consisted of two acres.[90] The main street in the townsite was the Telegraph Road.

The Nooksack townsite was located approximately one mile east of Everson. It appears the site selection and eventual platting of Nooksack City in 1890 was in anticipation of the Northern Pacific running tracks through the town. M. J. Heney, associated with the Nooksack Land and Development Company which platted Nooksack City, was a contractor for the Northern Pacific.[91] According to Roth, a modern hotel and business building were among the first structures built in the city.[92]

In conclusion, it can be seen that the pattern of settlement established during the initial phase of settlement in the 1860s and the early 1870s was modified to a great extent by the rectilinear land survey system of the United States. Therefore, after the land surveys first undertaken in the 1870s, the overall pattern of settlement was found to be that of unit block farmsteads based on agriculture and conforming to the provisions of the Homestead Act and other land settlement laws. Further, an increased influx of American settlers and businessmen in the 1880s led to the establishment of various Lowland trade or market centers. Of the trade centers established, several were eventually platted and by 1890 their permanence established.

NOTES

[1]Edson says of the first settlers around Bellingham Bay, "Pioneers were not eager to accept land as a gift from the government, being more interested in coal and timber than in agriculture." However, nineteen donation claims were filed upon in Whatcom County, the earliest being that of Captain William R. Pattle, January, 1853. Two claims were found to be on the Lummi Reservation and so were cancelled later. All other donation claims were on land now part of the City of Bellingham. See Edson, The Fourth Corner, pp. 46-47 and the Atlas of Bellingham.

[2]Jeffcott, Nooksack Tales and Trails, Introduction (n.p.). It should be noted that Jarman's Prairie is no longer in Whatcom County. A study of Jarman's life may be found in Percival R. Jeffcott's Blanket Bill Jarman (Ferndale, WA: Author, 1958). Whatcom County once included both Skagit and Island counties; Skagit County was created out of the southern portion of Whatcom in 1883; Island County, comprising Whidbey Island in 1873. See Roth, History of Whatcom County, pp. 9-12.

[3]Jeffcott, Nooksack Tales and Trails, pp. 121-22. The attitude of the Hudson's Bay Company towards the influx of American miners is considered by E. E. Rich in Chapters XI and XII, The Hudson's Bay Company, 1670-1870 (London: The Hudson's Bay Records Society, 1959). See also Margaret A. Ormsby, British Columbia: A History (Vancouver, British Columbia: The Macmillan Company of Canada, 1958), Chapter 6.

[4]Northern Light, July 2, 1858.

[5]The Treaty of Washington is also known as the Oregon Treaty of 1846. See George F. G. Stanley, ed., Mapping the Frontier: Charles Wilson's Diary of the Survey of the 49th Parallel, 1858-1862, while Secretary of the British Boundary Commission (Seattle; University of Washington Press, 1970), pp. 1-19 and Jeffcott, Nooksack Tales and Trails, Chapter I.

[6]Judson, Search for An Ideal Home, p. 131.

[7]Ibid., p. 2.

[8]Jeffcott, Nooksack Tales and Trails, p. 136.

[9]United States, The Eighth Census, 1860 (Washington, D.C.: Government Printing Office, 1862), p. 294.

[10]Warren E. Hawley, Monroe, Wash., "Letter, October 21, 1969."

[11]According to Jeffcott, Tennant's settlement on the Nooksack was the earliest in the Ferndale area. More information on the man and his settlement may be found in Nooksack Tales and Trails, pp. 136-39. and various Jeffcott typescripts, including "Notes on John Tennant," "John Tennant, Pioneer and Preacher," "John A. Tennant," and "Life Sketch of John A. Tennant," all on file in the Jeffcott Collection, Center for Pacific Northwest S udies. Roth in History of Whatcom County (p. 11) states that John A. Tennant filed on a claim "commencing at a stake in the prairie near a large alder tree, running thence in a southwesterly direction along the edge of the marsh, half a mile to a stake, thence due north to a fir tree, thence east half a mile to a large fir tree, thence south to the beginning, to include 160 acres. Said claim to be known by the Indian name of Sil-ats-its, taken and occupied by J. A. Tennant, April 1, 1858."

Wynn was in Sehome as early as 1852, but did not stay. In 1858 he returned and sold canoes to the gold miners. Jeffcott says he settled on 240 acres near Ferndale about 1863. For further information see Nooksack Tales and Trails, pp. 138-39.

[12]Jeffcott, Nooksack Tales and Trails, p. 388.

[13]Hawley, Skqee Mus, p. 47

[14]Roth, History of Whatcom County, p. 166.

[15]A full account of the Judson's movement to Washington Territory and their eventual settlement in the Lynden area are found in Phoebe Goodell Judson's A Pioneer's Search for An Ideal Home. See also P. R. Jeffcott's "Colonel James A. Patterson and Reuben Bizer were Partners at Squahalish before there was a Lynden." Typescript and manuscript notes, Jeffcott Collection, Center for Pacific Northwest Studies.

[16]The earliest days of Lynden are recorded in Hawley's Skqee Mus. See also P. R. Jeffcott's "James C. Bertrand." Typescript, Jeffcott Collection, Center for Pacific Northwest Studies.

[17]Jeffcott, Nooksack Tales and Trails, p. 376.

[18]Northwest Enterprise, December 2, 1882.

[19]Northwest Enterprise, March 24, 1883.

[20]Jeffcott, Nooksack Tales and Trails, p. 149.

[21]Hawley, Skqee Mus, p. 100.

[22]Trewartha, "Types of Rural Settlements," p. 596.

[23]The first survey maps of Whatcom County are available in the Whatcom County Engineer's Office, Whatcom County Courthouse, Bellingham. It appears the first survey of the Nooksack Lowland took place in 1861. Microfilm copies of the original survey notes are available in the Center for Pacific Northwest Studies, W.W.S.C., Bellingham.

[24]The Homestead Act was signed by President Lincoln on May 20, 1862. According to Roy M. Robbins, it extended ". . . to the same classes of persons included in the Preemption Act of 1841, the right to a homestead, not exceeding 160 acres, on the surveyed public domain. Title to the homestead could be acquired by continuous residence, improvement of five years, and the payment of $34 on the Pacific Coast and $26 in the other states. After six months actual residence and suitable improvement, the claimant might commute his homestead entry into full title simply by the payment of $1.25 per acre. Any improvements to the extent or an acre or more entitled the claimant to commutation." See Robbins, Our Landed Heritage (Lincoln: University of Nebraska Press, 1962), pp. 206-207.

Further, "squatters" claimed land under the provisions of the Act of 1841. According to Robbins (pp. 89-90), "The preemption provisions of the Act of 1841 repudiated the retrospective policy of preemption and recognized that settlement prior to purchase as no longer per se a trespass. The act provided that an individual henceforth, could legally venture forth upon public surveyed land and stake a claim to the exclusion of all others. The maximum amount that a settler could purchase was 160 acres . . . ."

[25]Hawley states in Skqee Mus, (p. 36): "When an early settler located a claim on Government land, before it had been surveyed, he acquired what was called a 'squatter's right.' This gave him the privilege of choosing, at the time the government survey was made, one hundred and sixty acres in any shape he wished." Hawley also points out that the Indians were allowed similar privileges if they had three white men sign for them, agreed to accept the white man's way, and live like a white man. It might be noted, however, that few Indians were able to maintain their claims. See Chapter III above.

[26]Problems with the Preemption Act and Homestead Act resulted in the Act of May 27, 1878, which provided that a preemption claim could be entered as a homestead. According to Robbins, "Any settler on land surveyed or unsurveyed, who intended to claim the same under the Homestead Act, was to be allowed a period of time to file his homestead application and perfect his original entry similar to that provided for preemption claimants. The act also stipulated that the right of the homesteader should relate back to the date of settlement in the same way as preemption. In other words, this act placed homesteaders on an equal footing in all respects with the preemptors, and the special utility of the preemption system for purposes of bona fide settlement thus ceased. Any person who might take a preemption entry might now make a homestead entry. Any land that might be entered under the preemption law might also be entered under the homestead law with the same privileges and guarantees." Robbins, Our Landed Heritage, pp. 285-86.

[27]Roth, History of Whatcom County, p. 214.

[28]Isaiah Bowman, The Pioneer Fringe (New York: American Geographical Society, Special Publication No. 13, 1931), p. 1.

[29]Kniffen and Glassie, "Building in Wood," pp. 40-41.

[30]Brunhes, Human Geography, pp. 32-33.

[31]Spencer, "House Types of Southern Utah," p. 445.

[32]Roth, History of Whatcom County, pp. 425-31 passim.

[33]Hawley, Skqee Mus, p. 64.

[34]Judson, Search for An Ideal Home, pp. 140-41.

[35]Judson, Search for An Ideal Home, p. 141. The menace of the cougar to lowland inhabitants is described in Jeffcott's chapter entitled "Cougar Tales" in Nooksack Tales and Trails, pp. 337-45.

[36]It should be noted that the barn was usually several times larger than the house on those farms where dairying was the major occupation. For many farmers, however, their first barns were log cabins originally built as the family residence.

[37]Roth, History of Whatcom County, vol. 2, p. 780.

[38]Roth, History of Whatcom County, vol. 2, p. 780. Within the last several years there has been a local movement to "save the Berthusen Barn." The barn has suffered from old age and neglect and currently the City of Lynden is attempting to channel some park funds into its partial restoration as part of an overall plan for the Hans C. and Lida H. Berthusen Memorial Park. Local donations were used in 1973 to remedy faulty foundation supports of the massive structure. According to Bill Swinburnson, Parks Chairman, Lynden City Council, the Berthusen barn is now listed as an historical site for the State of Washington. Interview, Lynden, Washington, July 13, 1973.

[39]Hawley, Skqee Mus, pp. 127-28

[40]H. R. Shurtleff, The Log Cabin Myth (Cambridge, Mass.: Harvard University Press, 1939), p. 186 and Kniffen and Glassie, "Building in Wood," p. 59. Kniffen and Glassie state, "The Swedes who settled on the Delaware in 1638 were the first to employ horizontal log construction in what is now the eastern United States." Richard Pillsbury and Andrew Kardos in A Field Guide to the Folk Architecture of the Northeastern United States (Hanover, N.H.: Geography Publications at Dartmouth College, No. 8, Special Edition on Geographical Lore, no date), p. 47, believe that

the log cabin as we know it was first introduced by the Germans and is "highly associated with the Pennsylvania culture region and indigenous to that region only."

[41]Thomas R. Garth, Jr., "Early Architecture in the Northwest," Pacific Northwest Quarterly, 38, no. 3 (July 1947), p. 216.

[42]From an account of Mrs. Frank (Maud) Shinn in Jeffcott, Nooksack Tales and Trails, p. 257.

[43]Kniffen and Glassie, "Building in Wood," pp. 48-49.

[44]An extensive collection of photographs of the early log cabins of Whatcom County may be found in the Jeffcott Collection, Center for Pacific Northwest Studies, Western Washington State College.

[45]This classification of log cabin types is based primarily on Kniffen and Glassie's "Building in Wood," pp. 48-65.

[46]From an account of Mrs. Rebecca E. (Tarte) Jeffcott, in Jeffcott, Nooksack Tales and Trails, p. 347.

[47]Jeffcott, Nooksack Tales and Trails, p. 310.

[48]P. R. Jeffcott, "Also a Pioneer Centennial," (Unpublished MS, no pagination or date: Jeffcott Collection, Center for Pacific Northwest Studies, Western Washington State College).

[49]See Pillsbury and Kardos, Folk Architecture, pp. 47-49. The plate is the point where the roof and walls come into contact, and in the examples shown is covered with vertical or horizontal boards.

[50]Judson, Search for An Ideal Home, p. 141.

[51]Examples of V-notch structures may be seen in the various photographs in the Jeffcott Collection, Center for Pacific Northwest Studies, Western Washington State College.

[52]Nooksack Crossing is also referred to as The Crossing.

[53]Roth, History of Whatcom County, p. 854.

[54]Jeffcott, Nooksack Tales and Trails, p. 302.

[55]Ibid.

[56]Roth, History of Whatcom County, p. 854.

[57]Hawley, Skqee Mus, p. 53.

[58]Hawley, Skqee Mus, pp. 53-54. Hawley mentions that the furs included beaver, bear, wildcat, cougar, mink, and muskrat. Butter, that was traded during the summer, was placed in barrels of brine and later molded into two pound bricks. It was sold in Whatcom.

[59]Roth, History of Whatcom County, p. 818. Jeffcott in Nooksack Tales and Trails, p. 132, establishes the date of Rogers' store as being late 1878 or early 1879 and its location as being on the east bank of the river.

[60]For a more thorough examination of the ferries, see Chapter X, "The Ferries of the Nooksack," in Jeffcott's Nooksack Tales and Trails, pp. 207-219.

[61]Hawley, Skqee Mus, p. 115.

[62]Jeffcott, Nooksack Tales and Trails, pp. 128-34.

[63]Ibid., p. 130.

[64]Ibid., p. 302.

[65]Roth, History of Whatcom County, pp. 564-66.

[66]Ibid.

[67]Jeffcott, Nooksack Tales and Trails, p. 167.

[68]The official plat map of Everson was filed September 26, 1892.

[69]Roth, History of Whatcom County, pp. 277 and 300.

[70]Ibid., p. 813.

[71]Jeffcott, Nooksack Tales and Trails, p. 307.

[72]Roth, History of Whatcom County, p. 301.

[73]Ibid., p. 830.

[74]Ibid., pp. 290 and 872.

[75]Jeffcott, Nooksack Tales and Trails, p. 154.

[76]Ibid., p. 302.

[77]Roth, History of Whatcom County, pp. 175-77.

[78]Ibid., p. 175.

[79]Roth, History of Whatcom County, pp. 838-46, provides an historical account of the Normal School's growth and eventual relocation to Bellingham. Today the institution is Western Washington State College. See Arthur Hicks, Western at 75 (Bellingham: Western Washington State College Foundation, 1974).

[80]Jeffcott, Nooksack Tales and Trails, p. 156.

[81]Roth, History of Whatcom County, pp. 838-46.

[82]Wesley was platted west of Lynden near an area also known as Lawrence. See Roth, History of Whatcom County, pp. 868-73 for a record of Whatcom County townsites.

[83]Jeffcott, Nooksack Tales and Trails, p. 155.

[84]Ibid., pp. 160-61.

[85]Ibid., p. 161.

[86]Roth, History of Whatcom County, p. 830.

[87]Roth, History of Whatcom County, pp. 261 and 960.

[88]Hawley, Skqee Mus, p. 127. According to Hawley, the store building erected in "what was to have been the rival town of Lawrence" was moved into Lynden. See Hawley, p. 169.

[89]Roth, History of Whatcom County, p. 813 and Jeffcott, Nooksack Tales and Trails, p. 307. Everson was a native of Norway and, according to Roth, ". . . so enthusiastic an American that he declined to spell his name the Norwegian way (Iverson). . . ." (History of Whatcom County, p. 944) Jeffcott states: "His real name was Iverson, but the government deed to his claim put E for I, and he adopted the change." (Nooksack Tales and Trails, p. 307)

[90]It should be noted that the Nooksack River lies southeast

of Nooksack, contrary to its location on the plat of the Village of Nooksack (Map 11).

[91]Roth, History of Whatcom County, p. 859. The Northern Pacific eventually laid tracks through Nooksack.

[92]Ibid.

CHAPTER V

CONCLUSIONS

This investigation of the settlement geography of the Nooksack Lowland until 1890 has necessitated analysis of both the process of settlement and settlement form. Cultural and physical determinants which interacted with one another to produce the spatial configuration of the groups of people occupying the lowland have been considered in the study of three distinct groups of settlers: 1) The Lummi Indians; 2) the Nooksack Indians; and 3) the American pioneer settlers.

Description and analysis of the distribution of buildings used by Indians and American settlers for the purposes of primary production provide the basic material of each substantive chapter. Chapters II and III demonstrate the areal predominance of fishing as the primary economic function in both Nooksack and Lummi settlement. Areal predominance of primary production in agriculture, and to a lesser extent trapping and forestry, was widespread in the American settlements and is considered in Chapter IV. By the 1870s Indians and Whites were vying for the ownership and use of the Nooksack Lowland which resulted in marked modification of the physical landscape. Natural clearings or prairie areas of the lowland which were useful for agricultural production were of the greatest importance in the establishment of initial settlement patterns for both the Nooksack Indians and the pioneer American settlers.

The Lummi Indian group which occupied portions of the coastal lowlands surrounding Bellingham Bay and parts of the delta and lower valley of the Nooksack by 1850 had established their major villages on the Lummi Peninsula near the mouth of the Nooksack River. Their settlements were typical of Coast Salish Indian groups. Nooksack Indian settlements on the other hand were located further upstream as far inland as the foothills of the Cascades. The present study confirms that major Nooksack settlements were most often located near natural prairie areas and/or in close proximity to fishing spots along the Nooksack and its tributaries. Concentrations of autonomous family units were concentrated

near Lynden, Everson, and the forks of the Nooksack River.

Two settlement forms are distinguished for the Lummi group: the permanent winter village settlement and the seasonal non-permanent settlement. It is found that the settlement pattern of the Lummi group was nucleated both in their permanent winter villages and in their seasonal spring and summer habitations. Settlements functioned as autonomous, extended family units with an economy based on fishing and gathering. Seasonal settlements were extensively distributed and more isolated from one another than the permanent winter settlements.

Cedar was the most important of the materials used by the Lummis in the building of the three house types that are distinguished: the shed-roof house, the gable-roof house, and the lean-to or hip-roof house. Modification of house types and village form appears to have occurred directly after contact with white settlers, Indian agents, and missionaries.

In brief, the overall pattern of the Lummi group was that of the central-based, wandering community. However, this pattern of community settlement was modified after 1855 and influenced by such diverse factors as the creation of the Lummi Indian reservation, cross-cultural contacts, and various natural causes.

The Nooksack Indians, who were more closely connected culturally with the riverine Indians of interior British Columbia than with Coast Salish groups such as the Lummis, were more restricted in their seasonal movements, and cultivation of root crops, unknown among the Lummis, was undertaken. It appears doubtful, therefore, that Nooksack villages were left unattended at any time during the year. The permanent Nooksack settlements functioned as autonomous extended-family units, a factor which greatly influenced their high degree of nucleation, as did their dependence on fishing and crop culture.

Two major house types were associated with the Nooksacks, namely the pit house dwellings and the gable-roof longhouse, the materials of which were cedar bark and planks. Village morphology was influenced by such factors as house types, family size and social structure, and various physical factors.

The overall community pattern of the Nooksack group is classified as

that of a semi-permanent sedentary community, a community based on cluster settlements occupied for most of the year at one site. Modification of the nucleated aboriginal settlement and semi-permanent community pattern was most profoundly influenced by governmental treaties and the rectilinear survey system imposed upon the Nooksacks after 1870. However, many Nooksack Indians chose to remain near their ancestral homes in the lowland rather than be moved to the Lummi reservation. In order to do this, many Indians took up homesteads in the lowland with certain restrictions placed upon them by the government.

Establishment of pioneer agricultural settlements in the lowland was influenced by various physical and cultural factors, including the agricultural potential of lowland soils and provisions of the Homestead Act and other land settlement laws of the United States. The earliest settlements which were solidly based on agriculture were located for the most part on prairies or other natural clearings in the lowland near the major centers of Indian population. It appears that many of the earliest settlers found their way initially to Whatcom County during the Fraser gold rush of 1858-59, although few agricultural settlements were established prior to 1860. The initial distribution of pioneer settlements, therefore, appears to have been influenced by the distribution of prairie lands adjacent to the Nooksack River. The river, used as the main transportation route, played a major role in opening up the Nooksack Lowland for initial settlement, and it continued to be an important transportation route until the 1880s. Influencing the overall pattern of dispersed farmsteads which eventually evolved were such factors as the presence of non-hostile Indians, the ingress of independent American farmers, and the rectilinear survey system. The study shows that during the 1880s the increased influx of American settlers into the lowland led to much forested lands being cleared for agricultural use. During the same period numerous market centers and post offices began to appear throughout the area.

Pioneer farmsteads for the most part were isolated from one another. This isolation or tendency towards dispersion was maintained throughout the period and was influenced particularly by the government surveys completed then, and the implementation of the Homestead Act which provided for dispersed farmsteads in unit blocks of 160 acres. The farmsteads

created were mainly multiple-structure units with a loose assemblage of buildings scattered about the area near the house. Four types of log cabin associated with the pioneer phase of settlement are identified: the square-notch cabin, the dove-tail cabin, the saddle-notch cabin, and the V-notch cabin. The present study finds that most cabins were built with true corner timbering and that all wooden construction was dominant throughout the lowland, the building materials consisting primarily of logs and cedar planks.

Within twenty years of the establishment of initial settlements in the Nooksack Lowland, trading centers and market towns became established and continued to grow as both economic and cultural centers. The earliest centers were trading posts established during the Fraser gold rush of 1858-59. All centers were located close to the Nooksack River and platted by 1890. Major centers were those at Ferndale, Lynden, and Everson, with subsidiary centers located at Marietta, Nooksack, and various points along the North and South forks of the Nooksack.

With improved transportation by river, by road, and eventually by railroad, the major towns of the lowland maintained steady growth in population and continued to function as economic and cultural centers for the steadily increasing numbers of farmers in the Nooksack Lowland area.

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