

## THE REGION: A GEOGRAPHICAL SKETCH

In a relatively recent synthesis of the archaeology of the Gulf of Georgia region, Mitchell (1971) goes to great effort to establish three major tenets. These are:

- 1) The Gulf of Georgia area constitutes a distinct natural region different from areas on its borders.
- 2) The Gulf of Georgia region is a distinct ethnographic area within North America.
- 3) The Gulf of Georgia region has a unique prehistoric past.

For each, Mitchell puts forth well stated arguments based on existent data. With the exception of the third, there is little new information to question his assumptions. Further, with some spatial qualification, most recent archaeological work would tend to confirm his hypotheses regarding the uniqueness of this region prehistorically, at least for the past 3,000 years. As a geographical backdrop for the present study, a brief review of each of these topics is in order. A more detailed analysis of much of this data will be taken up in later discussions.

### The Physiographic Perspective

Physiographically, the Gulf of Georgia region consists of the northern half of the Georgia depression within the Coastal Trench. Its boundaries include: the mountain ranges of Vancouver Island and the Olympic peninsula on the west; the Coast-Cascade range on the east; the constriction of mainland and island mountains to form Seymour Passage on the north, and to the south, a line drawn across the northern part of the islands at the entrance to Puget Sound (Mitchell 1971: 3-4) (Figure 1).

Having considerable variation in land form, this region incorporates areas with mountains rising abruptly from the sea, low rolling coastal plains, an abundance of islands and reefs, and the lowland river valley of the Fraser. Sectioned by the Straits of Georgia and Juan de Fuca, variation may also be noted in hydrographic patterns. Tide range is increased in the northern Gulf where a diurnal tide is predominant while, in the south, a single daily tide is present for one third to one half of the lunar cycle (Mitchell 1971: 5). In addition, currents flowing through the island passages in the north are markedly stronger than those to the south.

To aboriginal occupants, probably the single most important hydrographic feature and concomitant landform is the Fraser River. Flowing out of the Fraser Canyon,

this river makes its way through a low lying valley for approximately one hundred miles. At its mouth, the yearly accumulations of silts have created an immense delta. Within the historic era, delta growth rate has been set at roughly 28 feet per year (Holland 1964: 37).

As a natural region, the Gulf of Georgia is most restrictive in its climate. It is characterized by a "... narrow seasonal range of temperature and marked seasonal variation in precipitation" (Putnam *et al.* 1952: 464). Fall and winter are predominantly overcast with high precipitation but little snow while spring and summer are generally dry. Again, regional differentiation is such that Kerr (1951) has postulated three climatic types based primarily on summer precipitation figures. These include a cool Mediterranean (less than 3 cm), a transitional (3 to 7 cm), and a Maritime (greater than 7 cm). Whereas the first is confined solely to the southern Gulf, the transitional is situated throughout central and northern sectors. The high summer rainfall Maritime is found primarily along the east, west and north perimeters (see Figure 2).

Partially correspondent with these climatic zones are slightly varied organic environments. Munro and Cowan (1947) define three distinct biotic areas — the Gulf Islands, Puget Sound Lowlands and Coast Forests regimes.

The Gulf Islands Biotic area correlates with most low lying coastal plains including the Gulf and San Juan Islands (cf. Mitchell 1971: 12). Primarily characterized by an oak-parkland environment, Garry oak (*Quercus garryana* Douglas) and arbutus (*Arbutus menziessi* Pursh) are the most predominant floral species. Though lacking a unique faunal assemblage, Munro and Cowan (1947: 35) do note the absence of timber wolf (*Canis lupus sp.*), wolverine (*Gulo luscus*), weasel (*Mustela ermine sp.*), marten (*Martes americana sp.*), black bear (*Ursus americanus*), beaver (*Castor canadensis*) and wapiti (*Cervus canadensis roosevelti*). Whether such a case existed prehistorically is open for question. Mitchell (1971: 219) lists wapiti, beaver and black bear as constituents of the Montague Harbor (DfRu 13) faunal remains while marten were recovered at the Helen Point (DfRu 8) site on Mayne Island (Boucher 1976: 86; McMurdo 1974: 135).

The Coast Forest biome is most notable for its rain-forest seral-floral communities and a low potential for animal life. Predominantly located along the perimeters of the Gulf of Georgia region, climax forests are dominated by Sitka spruce (*Picea sitchensis*), Douglas fir (*Pseudo-*

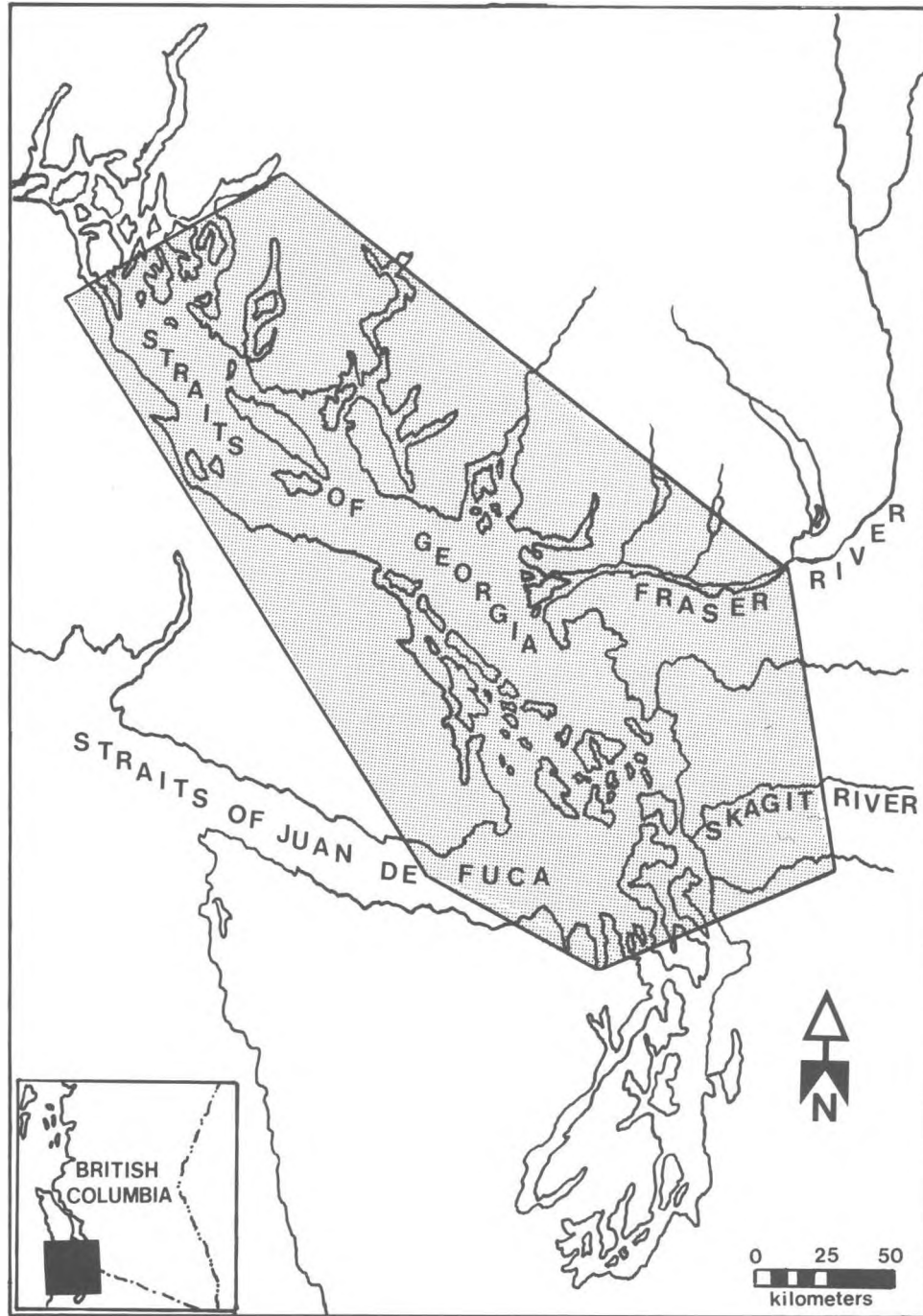


Fig. 1. The Spatial Extent of the Gulf of Georgia Region.

*tsuga menziessi*), hemlock (*Tsuga heterophylla* and *T. mertensiana*), western red cedar (*Thuja plicata*), white pine (*Pinus monticola*), yellow cedar (*Chamaecyparis nootkensis*), and grand fir (*Abies grandis*). Density of undergrowth is varied dependent upon shade conditions. Of the larger mammalian fauna, Coast deer (*Odocoileus hemionus*

*columbianus*) and wapiti are found within the confines of this zone (Cowan and Guiguet 1956: 26). Mitchell (1971: 14) has suggested that, during earlier stages of forest development, larger deer populations may have been present.

Finally, the Puget Sound lowlands biotic area is similar in many respects to the Gulf Islands biotic province. How-

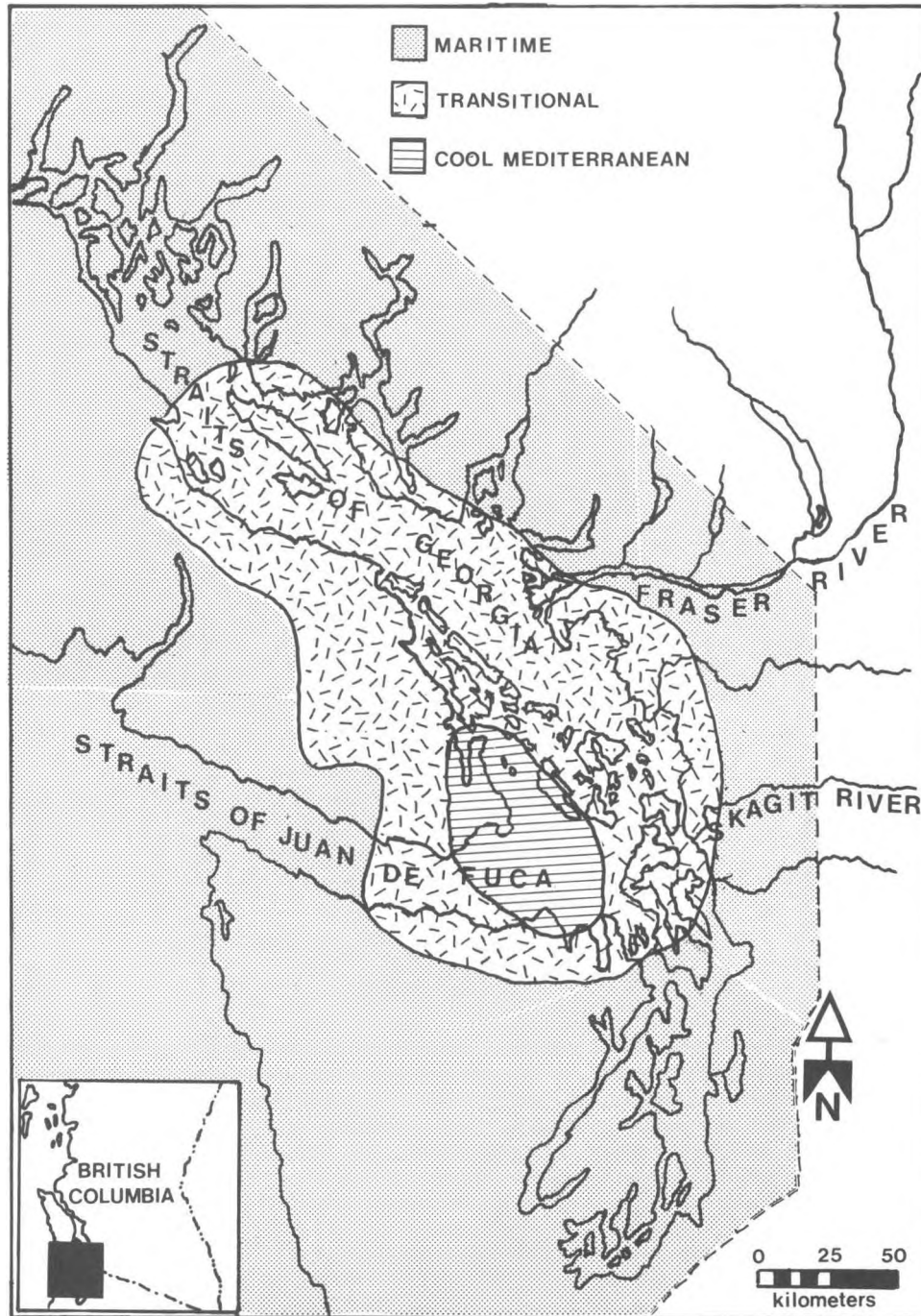


Fig. 2. Climatic Zones Within the Gulf of Georgia Region (after Kerr 1951; Mitchell 1971).

ever, there is a notable absence of Garry Oak and arbutus while ". . . shrubbery of hazel, *Corylus californica*, mock orange, *Philadelphus gordonianus*, Nootka rose, *Rosa nutkana* and western dogwood, *Cornus pubescens*, are formed here . . ." (Munro and Cowan 1947: 35). In addition, several small mammal species are restricted to its boundaries.

Extending from the mouth of the Fraser River southward into Puget Sound, Mitchell (1971: 12) borders the majority of this biotic area with the Gulf Islands zone on the west.

Supplementing the resource potential of these zones is the rich and abundant marine life of the Gulf. Numerous beaches and tidewater flats support a wide range of mollusca

and intertidal vertebrates (Mitchell 1971: 14–5; Quayle 1960; Griffeth 1967). As well, offshore resources are of equal abundance. Several species of sea mammal (Cowan and Guiget 1956) and a plentiful variety of fishes can be found throughout (Carl 1963: 87–9; Mitchell 1971: 16–7).

Mitchell (1971: 16), among others, has singled out the anadromous fish species as those most important to aboriginal inhabitants of the region. Of these, the five species of salmon (*Oncorhynchus nerka* Walbaum, *O. ksitutch* Walbaum, *O. gorbuscha* Walbaum, *O. tshawytscha* Walbaum, and *O. keta* Walbaum) are the most significant. Predictably following set migratory routes, they could be caught both in the waters of the Gulf and its freshwater tributaries (Mitchell 1971: 16–7; Suttles 1951: 154). Individual species vary drastically in abundance at any given locale and return at divergent periods. Salmon abundance is used by Mitchell (1971: 18) as the key division between the Gulf of Georgia region and its southern neighbour, Puget Sound.

Studies of post glacial environments in the Gulf of Georgia, both in terms of climatic conditions and land-sea level relationships, indicate that present conditions cannot be assumed stable for the entire length of man's occupation. The effects of such shifts would have direct impact on localized resources available for exploitation and, in turn, cultural adaptive strategies.

Although specific knowledge of post glacial climatic patterns and concomitant plant communities is still in an infancy stage for southern coast areas, a number of studies do illustrate changing conditions since the last glacial. For instance, Huesser (1965) postulates four phases — a late glacial, an early post glacial, a hypsithermal, and a late post glacial. He suggests that, following the retreat of ice from the region up to 6,500 B.C. (the end of the early post glacial), a lodge pole pine parkland environ was spread throughout. Climatic conditions were cooler and moister than those of today. Succeeded by the hypsithermal, the climate first shifted to a warm moist period becoming drier in a later interval and closing out with strongly humid conditions and a cooling trend (Huesser 1960: 185). Correlated with the hypsithermal is a series of three successional stages of forest development including an initial Sitka spruce, western hemlock, Douglas fir, white pine and alder dominance followed by a peak of Douglas fir and alder. This eventually shifted to mixed floral communities of western hemlock, Douglas fir and alder. In coastal lowland areas of Washington, and quite probably, the Gulf of Georgia, oak becomes important. In fact, the Garry oak/arbutus dominated Gulf Islands biome has been suggested as a vestige of hypsithermal vegetation (Fladmark 1975: 181). The final stage, the late post glacial, comes into effect at approximately 1,000 B.C. Beginning with weather more

cool and humid than present conditions, there is a gradual shift to a western hemlock/Sitka spruce dominated climax forest.

Mathewes (1973: 2101), in a palynological study of the Fraser Valley, finds no hard core evidence for a "classic hypsithermal" in the region. His data suggest a *gradual* change from a lodge pole pine dominated early post glacial to current vegetational communities. On inspection of his pollen graphs, it is apparent that climatic and vegetational stability can be extended back for at least the last 3,000 years. However, it is also probable that at least minor perturbances due to neoglacial advance did occur (Fladmark 1975: 186).

As well as a shifting environment, land-sea relationships in the post glacial period have been somewhat dynamic. Southern coastal data have been extensively reviewed by Fladmark (1975: 145–9). Following Mathewes, Fyles and Nasmith (1970), he concludes:

Between 13,000 and 8 or 9,000 B.P. sea levels were high with an overall trend of rapid emergence. Between 8,000 and ca. 5,000 B.P. the sea was between 10 and 40 m lower than present, with a trend of gradual land submergence. By about 5,000 B.P. sea levels were more or less stabilized at their present position (1975: 149).

Applying Fairbridge's (1960) scheme of worldwide Holocene sea level fluctuations, Mitchell (1971: 65–7) has argued for oscillations of up to 3 metres on the southern coast between 500 and 1,500 B.C. As support, he notes that several midden sites dated to this period are either "drowned" or on elevations removed from the present shoreline. Rather than widespread eustatic fluctuation, it is probable that emergence and submergence are due to localized geotectonic factors (Fladmark 1975: 149).

The prehistory of marine and terrestrial fauna for the southern Northwest Coast is little known. Faunal remains from archaeological sites suggest that present day species' compositions have a relatively long antiquity of at least 8,500 years (cf. Matson 1976e). It is also important to note that salmon are recovered in a number of early contexts (Casteel 1976; Cressman 1960) and are suggested to have reached climax productivity by 3,000 B.C. (Fladmark 1975: 207).

In summary, the Gulf of Georgia area is viewed as a natural region distinct from those adjacent to it. Internal variation is present in hydrographic patterns, climate and organic environments. As a whole, however, it incorporates a rich and varied resource base which could be exploited by man. It also is argued that, between 1,500 and 500 B.C., climatic patterns, vegetational communities, and land-sea level relationships had roughly attained their present form.

### The Ethnographic Perspective

Mitchell's (1971) characterization of the Gulf of Georgia region as possessing an ethnographically unique culture is, self admittedly, weaker than his identification of a natural region. Nevertheless, as he notes, it is a recurrent theme found in several earlier ethnographies. Basically a Coast Salish linguistic province, the boundaries and distributions of individual groups are as follows:

Within the area are eight Salish languages and only one of these (Puget Sound) seems to extend any great distance outside of the natural area. . . . In the north is Comox, bounded to the north and west by Wakashan and to the east by Athapaskan. South on the mainland are two languages, Sechelt and Squamish, bounded to the east by the Interior Salish language, Lillooet. On Vancouver Island is Pentlatch, to the west of which is Nootka. South of these languages is Halkomelem, spoken by the Nanaimo and Cowichan groups on the Island and along the Fraser River from the Musqueam and Tswassan to the Tait of the Lower Fraser Canyon. To the west are Nootka and Nitinat, and bordering on the eastern arm are the Lillooet and Thompson languages. At the southern end of the area are Nooksack, Straits and Puget Sound, the latter, as already noted, being outside of the area as well. East and south of these are the Puget Sound Twana, Quinalt Salish languages and to the west, Quileute (a Chemakuan language), Nitinat and Makah. Chemakum was a distinct Chemakuan language spoken by a small group at the entrance to Puget Sound to the south of most Straits speakers (Mitchell 1971: 24).

Several descriptive ethnographies exist for the majority of these groups (Barnett 1938, 1955; Boas 1890, 1894; Duff 1952; Hill-Tout 1907; Smith 1941; Suttles 1951). While a thorough review for each is unnecessary, a brief synthesis is in order. Many points superficially sketched, particularly those related to subsistence strategies, social organization and ritualistic behaviour, will be taken up in later, more detailed analyses.

As a whole the Gulf of Georgia Coast Salish are characterized by patrilineal descent groups, virilocal residence, extended families and a system of ranking. Nevertheless, although these may be the prescribed norm or general mode, they are less rigid than many other areas of the Coast. For instance, Barnett (1938: 130) reports that descent and inheritance were reckoned bilaterally with only a decided preference for the patrilineal. The value of bilateral kinship recognition served to both enhance an individual's or family's sphere of influence as well as providing safeguards against lean times due to fluctuation of resources (Suttles 1960: 300). In effect, as Duff (1964: 16) has argued, the area was bound together by a "diffuse web of bilateral kinship ties".

The ranking structure, as well, was less strict than areas to the north and west (Drucker 1955: 126). Though a wide gap may have existed between the highest and lowest,

individual achievement was acknowledged publicly allowing for achieved mobility. Similarly, nobles without ambition or generosity quickly lost their traditional followers.

The potlatch, as elsewhere on the Coast, was an integral part of the regional culture. It served as a mechanism for redistribution (Suttles 1960), legitimized status and names, eradicated shame, celebrated the completion of a house or erection of a totem pole and, in general, extended one's social sphere. As wealth through the fur trade increased, so did the number and size of potlatches. This snowballing effect has led Barnett (1955: 256) to comment that "...the concern for the gifts themselves became so hypertrophied that the real reason for the existence of the institution was obscured".

The Coast Salish yearly cycle followed a pattern of sedentary winter villages, dispersed spring hunting, gathering and fishing camps and larger summer/fall gatherings for the procurement of salmon. Seasonal mobility was great with a number of groups travelling distances in excess of 320 km (Duff 1952: 26; Mitchell 1971: 27; Barnett 1955: 22).

Barnett (1938: 122) notes an intra-areal distinction of Gulf of Georgia Salish on the basis of available resources. Peoples along the Fraser and Squamish rivers had little opportunity to take cod, halibut or sea mammals while the scarce sockeye were plentiful on the Fraser and, likewise, eulachon on the Squamish. Such a separation was not unfounded considering "...the peoples living on these rivers drew a distinction between themselves and the 'salt water people', by which they meant mainly those on Vancouver Island" (Barnett 1938: 122).

Mitchell (1971: 29) has further refined internal variability on the basis of access to the Fraser River salmon runs and, to a lesser extent, procurement strategies. Proposing four area subtypes, he defines: 1) a Northern Gulf diversified fishing strategy (Pentlatch, Comox, Sechelt); 2) a central and southern Gulf river fishery (Squamish, Halkomelem); 3) Straits reef-net fishermen (Straits); and 4) a Puget Sound diversified fishing group (Puget Sound, Chemakum). Although both northern Gulf and Puget Sound diversified fishermen had to rely on lesser salmon runs in local rivers and streams, the central and southern Gulf river based fishery and that of the Straits reef-net group had direct access to the major runs. The latter, however, took their catch by a special form of net while the fish were still in salt water. Additional division can be drawn between mainland and island groups in the northern Gulf as well as a distinction in the central and southern zones between those peoples permanently inhabiting the Fraser sites and those who occupied stations at its mouth on a seasonal basis.

Aside from fishing, a large variety of other resources were exploited both seasonally and year round. Mitchell (1971: 25) argues that "...conditions in the Gulf of Georgia

habitat fostered optimum density of deer, and this must have allowed a much greater use of this animal than was possible in the neighbouring regions". As well, goats, wapiti, bear, seal and a number of smaller fur bearers supplemented Salish diet and provided valuable raw materials. A large variety of mollusca and intertidal vertebrates were collected and weirs. Cedar bark was used in clothing, basketry and rope making. The list is virtually endless. It was the wood-several avian species, were taken seasonally.

The technological aspects of subsistence and material culture have been extensively outlined by Barnett (1938, 1955). While a variety of raw materials was utilized, cedar would have to be considered that most important to Salishan technology. Cedar beams and planks were used in the construction of winter long houses. Cedar logs were adzed out for watercraft. Cedar laths were built into fish dams and weirs. Cedar bark was used in clothing, basketry and rope making. The list is virtually endless. It was the wood-working industry and wood related products which gave the ethnographic populace the major portion of their distinctive Northwest Coast material culture.

To exploit the wide range of resources available and secure adequate surpluses for winter consumption, Mitchell (1971: 26-7) has suggested three requisites. First and foremost, the culture must have developed a sufficient range of technological devices for the taking of such resources. While I have already noted nets and traps for fishing, we might add a large selection of hooks and lures for fishing; several harpoon forms for both fishing and hunting; the bow and arrow as well as nets, deadfalls and traps for taking terrestrial fauna; multiple pronged spears for hunting ducks, and a long paddle-like rake for collecting herring. In addition, this inventory was supplemented by a variety of tools for processing the catch.

The second and third requirements are those of seasonal movements to exploit available resources and the possession of a preservation technique for storing abundance. For the former, seasonal movements have been briefly touched upon as has the mobility of certain Salish groups. It is of note that water travel across the Straits was frequent and done with apparent ease. Preserving surpluses for winter consumption was primarily carried out through drying by sun, wind or fire. Eulachon, porpoise, seal and dogfish oil were also rendered down and stored for future use (Barnett 1955: 61).

The picture that emerges is one of a culture seemingly well ordered to a complex but abundant environment. The availability of seasonal resources required people to be in a specific place at a specific time and settlement pattern strategies were so adjusted. Mobility was high and adequate preservation techniques for storage of surpluses were present. In addition, the wide range of kinship ties, both of the husband and wife, apparently served as a safeguard

against resource fluctuation.

#### The Archaeological Perspective

Mitchell's 1971 review of prehistoric variability within the Gulf of Georgia region provides both a historical account of archaeological work and an integrative synthesis. Recognizing the problems of divergent competing sequences (Figure 3), some of which were derived in the same area, he sets out to cross correlate the various phases, cultures and periods into larger units designated culture types. To this end, he was successful. Despite Mitchell's efforts, however, the state of culture history has been little altered. Several schemes remain in vogue and this has been compounded by the addition of a number of new phases derived from recent analyses and syntheses. Though a replication of Mitchell's archaeological documentation is not intended, an outline of the major chronology helps set a framework for later discussions. Moreover, the incorporation of recent data updates the synthesis.

Over the past decade, our knowledge of man in the Gulf of Georgia prior to 4,000 B.C. has drastically expanded. Several sites have now been excavated and corresponding cultural units delimited. The earliest, and probably most disputed, is the cobble/pebble tool complex of the Fraser Canyon known as the Pasika phase. On the basis of terrace sequencing and geological context, Borden (1968b, 1975) dates this occupation to a period between 10,500 and 9,000 B.C. In that Pasika seems to lack a bifacial flaking technology, its ultimate origins have been tied to eastern Asia.

While the status of Pasika awaits further documentation, there is firm evidence for widespread occupation throughout the region by 7,000 B.C. In the Fraser Canyon at Esilao, Borden (1968a, 1975) has defined two sequent phases for this period, Milliken (7,500 to 6,000 B.C.) and Mazama (6,000 to 4,500 B.C.). In that both are characterized by laurel leaf points, large foliate bifaces, pebble tools and a variety of flake implements, there can be little doubt that one evolved from the other. Interestingly, Borden (1975: 63) has argued for a fall occupation due to the presence of wild cherry pits in both components. By seasonal association, he suggests the primary site function to have been the interception of an annual salmon run.

Similar in most respects to Milliken and Mazama, and quite possibly part of the same tradition, is the earliest occupation of the Glenrose Cannery site. Situated at the mouth of the Fraser River, it has bracketing dates of 6,200 ± 250 B.C. (Gak 4866) and 3,780 ± 125 B.C. (Gak 4650) (Matson 1976b: 18). Unlike the Canyon phases, however, Glenrose Cannery I incorporates a large faunal assemblage illustrating a diversified economy of fishing and hunting as well as the beginnings of shell fish exploitation. Because of this, Matson (1976d: 283) has argued that it

	GULF OF GEORGIA REGION	GULF AND SAN JUAN ISLANDS	FRASER DELTA	FRASER CANYON
1800-	GULF OF GEORGIA CULTURE-TYPE	SAN JUAN PHASE	STSELAX PHASE	ESILAO PHASE
1000-	MARPOLE CULTURE-TYPE	???	PRE STSELAX WHALEN II	EMERY PHASE
A.D. B.C.		MARPOLE PHASE	MARPOLE PHASE	SKAMEL PHASE
1000-	LOCARNO BEACH CULTURE-TYPE	LOCARNO BEACH PHASE	LOCARNO BEACH PHASE	BALDWIN PHASE
2000-	???	MAYNE PHASE	ST. MUNGO PHASE	???
3000-		???	???	EAYEM PHASE
4000-	???			
5000-	MAZAMA PHASE			
6000-	LITHIC CULTURE-TYPE	???	OLD CORDILLERAN TRADITION	MILLIKEN PHASE
7000-	???	???		???
8000-			PASIKA PHASE	
9000-				

Fig. 3. Culture Historical Sequences for subareas Within the Gulf of Georgia Region (after Borden 1968, 1975; Carlson 1960, 1970; Mitchell 1971; Matson 1976a). Borden (1975) now includes Mayne, St. Mungo and Eayem phases in a single Charles phase.

may be a coastal variant of Butler's (1961) Old Cordilleran. Consequently, he feels its closest ties are in Oregon with the early component on the Dalles (Cressman 1960, 1977).

To the south, in coastal Washington, several seemingly early components have been excavated. In common, all have a preponderance of cobble tools in association with leaf shaped projectile points. Gaston and Grabert (1975) list five such components in the Birch Bay locality of the

Washington mainland while R. Kidd's (1964) excavations at the Olcott site on the Stillaguamish River have led to the formulation of an Olcott complex. In northern Puget Sound, Bryan (1957) has defined an early coastal land hunting culture, the Deception Pass phase, from similar materials.

Since Capes' (1977) rejection of the early date for Millard Creek, the only other putative protowestern tradition sites within the Gulf of Georgia are at Deep Bay and Dionesio Point. For the present, the status of Deep Bay must be questioned on the basis of a pair of dates more recent than one would expect and the disturbed nature of the site (see Monks 1977). Although the Dionisio Point assemblage is somewhat small, Mitchell (1971) suggests it has widespread relations with a majority of the components already mentioned. In fact, by combining all materials prior to 4,000 B.C., he defines a "Lithic" culture type.

While the bulk of these assemblages are generally assumed to be residues of an early diversified economy with strong emphasis on hunting, the first positive recognition of a primary coastal adaptation can be seen in components occurring after 3,000 B.C. At the St. Mungo Cannery site on the Fraser River, a component with associated dates of 2,290 ± 105 B.C. (I 4688) and 2,360 ± 110 B.C. (I 4053) has been excavated by Calvert (1970: 57). Here, she reports "...the basic economic reliance on fish, mollusca, and wood which is so characteristic of later Northwest Coast cultures is well-defined in the earliest levels" (Calvert 1970: 74). Diagnostic of her St. Mungo I assemblage are stemmed or single shouldered points, a bilaterally barbed harpoon, boulder spall tools, bone rings, brow bands, various tooth and bone pendants, bone "charms" and large cores.

A similar assemblage with a coeval age is described by Matson (1976d) as overlying the Old Cordilleran component from Glenrose. In fact, the materials have such a striking correspondence that he proposes a St. Mungo phase (2,300 to 1,000 B.C.). In addition to St. Mungo affiliations, Matson (1976d: 286) sees broad similarities with two other phases of this time period, the Mayne phase of the Gulf Islands and the Eayem phase of the Fraser Canyon. Further, in that many artifact types persist from the Old Cordilleran complex of Glenrose I, he hypothesizes a direct continuum.

Using the earliest component at Helen Point on Mayne Island as the type site, Carlson (1970, 1975) has defined the Mayne phase. Including bilaterally barbed harpoons, a variety of stemmed, leaf and diamond shaped basalt points, pebble choppers, microblades, labrets and several other traits, he postulates a temporal span of 3,000 to 1,000 B.C. (Carlson 1970: 115). Although originally a guess estimate, this chronological placement was later supported by a number of C<sub>14</sub> assays (Carlson 1975: 2). Other possible Mayne phase components are Marpole I (Burley 1979b) and the early assemblage from the Crescent

Beach site (Percy 1975).

The Eayem phase of the Fraser Canyon is now known from two sites, Esilao and Mauer (Borden 1975; LeClair 1976). On the basis of eight radiocarbon dates, it spans the period between 3,500 and 1,500 B.C. In that several artifact types persist from earlier Canyon phases, it is assumed to also be an *in situ* evolutionary development.

The exact relationships of the Eayem, Mayne and St. Mungo phases must await a full detailed analysis of assemblages belonging to the former pair. Nevertheless, Borden (1975) suggests they are similar enough to combine into a single culture historical unit. He states:

In the preceding discussion of cultural manifestations in the lower Fraser-Strait of Georgia region dating between 5,500 and 3,000 B.P., it has become evident that a series of components, some of them initially defined as local "phases", e.g. Eayem, St. Mungo and Mayne, share a significant number of positive and negative traits which distinguish them from earlier and later cultural manifestations in this region. It seems desirable, therefore, to group these local components and "phases" together into one regional phase and to replace the local "phase" terms by the single designation "Charles phase" which would henceforth apply to all presently known components as well as to other comparable components yet to be discovered in this region and falling within the indicated temporal interval (1975: 96).

Subsequent phases or culture types of the Gulf of Georgia region have, for the most part, a longer standing in prehistoric research and are historically documented by Mitchell (1971). The Locarno Beach phase/culture type is known from several components (Mitchell 1971; Percy 1975; McMurdo 1974; Haggarty and Sendey 1976; Borden 1950, 1951, 1970; Charlton 1977) and is assumed to have been in existence between *circa* 1,000 and 400 B.C. Distinctive traits of this unit include one-piece toggle harpoon heads, two-piece composite toggle harpoon heads, medium sized chipped basalt points, microblades and cores, large faceted ground slate points, thick ground slate knives, labrets, earspools, grooved or notched sinkers and cobble and spall implements. Also characteristic are a series of well made bone or soapstone artifacts with an unidentifiable function. These are broadly categorized as Gulf Islands Complex artifacts (Duff 1956).

Few researchers would presently question the continuum of Charles phase peoples into Locarno Beach times. For instance, Mitchell (1971: 57) goes so far as to incorporate the Mayne phase within his Locarno Beach culture type. Carlson (1975) also notes major similarities of Locarno Beach, Mayne and other early Delta and Canyon phases and views these in the broader perspective of a tradition. Whatever the case, there is little doubt that a full maritime adapted settlement subsistence pattern was in effect during the Locarno Beach time period. In fact, it may well have

been oriented more towards maritime resources than later culture types (see, for instance, Mitchell 1971: 57-9).

The Marpole phase/culture type, the major focus of later analyses, has a temporal overlap with Locarno Beach (Borden 1970: 101). Assigned to a 400 B.C. to A.D. 400 period, its origins seem unclear. Borden (1951: 48) had originally described it as an "interior culture in a state of transition". Mitchell (1971: 68-71), on the other hand, argues that it could have developed out of the Locarno Beach culture type. Marpole components have a spatial configuration spread throughout most of the southern Gulf of Georgia. In addition, Borden (1968a: 20) reports close similarities between Marpole and the earlier Baldwin phase of the Fraser Canyon.

The Baldwin phase first appears by 1,000 B.C. and lasts up to 300 B.C. Despite a slight gap in the archaeological record between Baldwin and the earlier Eayem culture, on the basis of several persisting artifact types it would appear to represent another stage of continuous development in the Canyon. Even so, as Borden (1968a) points out, there are a number of introductions in Baldwin which set it apart. One of the more important is the development of an artistic tradition in stone.

The ensuing Skamel phase (300 B.C. to A.D. 200), a unit which is in part contemporaneous with Marpole, is interpreted by Borden (1968a: 16) as an alien intrusion into the locality. As he reports, "...virtually everything that was characteristic of the Baldwin phase vanishes" (1968a: 16). With Skamel came intensive utilization of fine grained cryptocrystalline lithics, diagonally corner-notched triangular projectile points, a number of small specialized tools and the "pit house". Furthermore, Borden (1968a: 20) finds it intriguing that with the appearance of Skamel or, more properly put, the disappearance of Baldwin, Marpole comes into being further down the river.

With the demise of the Marpole Phase on the Fraser Delta, Borden (1968a: 20) once again has assumed a population replacement. This immigrant culture is identified as the Whalen II phase (A.D. 400 to 800). Delimiting it from Marpole are new forms of chipped projectile points, a shift to a composite form of harpoon, olivella beads and the lack of a ground slate industry. As evidence of upriver interior relationships, projectile point styles of Whalen II are likened to those of the Skamel phase (Borden 1970: 107-9). Despite such claims, this phase remains suspect. Its derivation was based on a sample of less than 200 specimens (Mitchell 1971: 56) and subsequent research has failed to uncover additional related components.

Following Whalen II, a hypothetical pre-Stselax phase has been proposed on the Fraser delta (Borden 1970: 110). An amalgamation of old and new elements takes place which eventually forms the cultural assemblage of the late prehistoric Coast Salish. While, admittedly, even today few



components can be definitely tied into the pre-Stselax period, evidence from a number of sites suggests slightly different assemblages for people occupying the Gulf Islands and those near the mouth of the Fraser. Whereas the Fraser River components seem to have been strongly influenced by interior patterns, particularly in chipped and ground point styles (see Charlton 1977), those on the islands appear more affected by adjacent coastal peoples.

The developed Coast Salish horizon, acknowledged by two distinct phases, spans the period A.D. 1200 until the time of contact. Borden (1968a, 1970), relying on material collected from Stselax Village near the mouth of the north arm of the Fraser, has defined the Stselax phase. Reporting a considerable number of redundant traits between Stselax, Whalen II and Marpole, he lists the major differences as a paucity of personal ornamentation, a new form of composite harpoon, a decline in the frequency of chipped stone, the lack of a microblade industry and a marked shift in burial practices. Further, the Stselax phase appears to have been "remarkably stable" through time ending with the full historic period (Borden 1970: 112).

Originally defined in the San Juan Islands and later extended into the Gulf Islands, Carlson (1954, 1960, 1970) argues for a late period San Juan phase. Though contemporaneous with Stselax and sharing many characteristics, it can be segregated on the basis of a greater frequency of herring rake barbs and small bone points (Carlson 1976: personal comm.). For the origins of San Juan, Carlson (1970: 122) presents three possibilities — population replacement, internal cultural change or diffusion of traits. It is implied that the resolution of this problem must await a greater documentation for the period intervening between Marpole and San Juan.

The final two cultural complexes of the Fraser Canyon, the Emery and Esilao phases, respectively date A.D. 200 to 1200 and A.D. 1200 to 1808. During the Emery phase there appears to be a reintroduction of the artistic traditions previously dominant in Baldwin and Marpole but absent in Skamel (Borden 1968a: 22). Aside from a continuum of many artifact types from Skamel, Borden also reports strong outside influences, particularly in the form of pipe smoking. Esilao, the culmination of the Fraser Canyon sequence, in many respects has an assemblage similar to its delta counterpart, Stselax. Projectile points, including side-notched and barbed forms, are smaller and lighter than earlier types. Further, there is an increased

frequency of ground slate items and a continuation of tobacco use. However, the large scale woodworking technology found in most contemporaneous coastal sites appears to be lacking (Borden 1968a: 22).

The Gulf of Georgia culture type, as defined by Mitchell (1971: 47), incorporates the three latest phases of the region — Esilao, San Juan and Stselax. From this amalgamation, he has derived 15 distinctive archaeological features (1971: 48). On the origins of the Gulf of Georgia culture type, there are no pretenses as to anything other than a direct ontogenous development out of the preceding Marpole period. Towards such an end, Mitchell concludes "there are many continuities indicating perpetuation of a well established regional tradition and the discontinuities . . . seem slight by contrast" (1971: 72).

From the preceding synthesis, several observations may be drawn. First, coterminous cultural complexes within the Gulf of Georgia physiographic region share many similarities throughout the prehistoric period. Thus, one might infer that the ethnographically recorded interaction between the Fraser Canyon, Fraser Delta and Islands peoples has considerable antiquity.

Secondly, we may note that considerable disagreement exists in the explanation of phase/culture type origins ultimately leading up to the development of the Gulf of Georgia variant of the Northwest Coast culture. Both continuity and discontinuity models have been employed to interpret the same phenomena. Mitchell (1971) suggests that, at least from early Locarno Beach times, there is little evidence to support alternative explanations aside from internal continuous evolution. Moreover, Matson (1976d) would extend this period back to an Old Cordilleran base. Borden (1968a, 1970) however, has suggested a number of incidences of migration and full scale population replacement. Most notable is the Skamel phase displacement of Baldwin in the Fraser Canyon and a movement of upriver peoples to the coast during the Whalen II period.

Finally, and most important to this study, is the seeming acceptance of the Marpole phase/culture type by all regional prehistorians. It has been given a discrete temporal designation with spatial boundaries encompassing almost the whole of the Gulf of Georgia. The major exception to this point is the Fraser Canyon although, even here, strong affinities have been drawn to the earlier Baldwin phase while the Emery phase is suggested as an amalgamation of Skamel and Marpole.