CHAPTER 5

# Alpine Archaeology and Oral Traditions of the Squamish*

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## Introduction

Intense vertical relief dominates the Coast Range Mountains of southwestern British Columbia (Figure 5:1), part of the traditional territory of the Squamish people. Many mountains rise from sea level or valley bottoms to elevations of over 2000 meters in less than 1-kilometer horizontal distance. The Coast Range has been shaped by both vulcanism and heavy glaciation as well as by influence from the adjacent marine environment. In this paper I examine the connections between Squamish culture and this mountainous terrain with a specific focus on the sub-alpine and alpine areas of the southern Coast Range within Squamish traditional territory (Figure 5:2), and without the notion of this landscape as a barrier to human use.

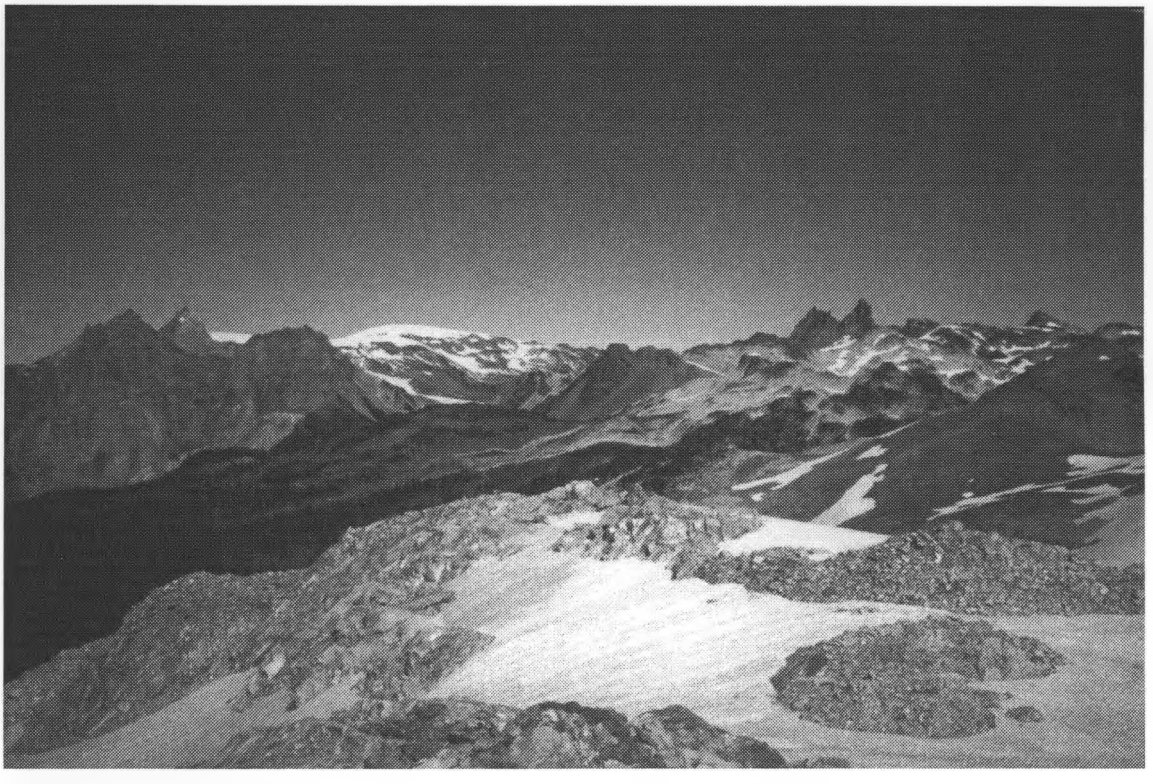

*Figure 5: 1.* **The Southern Coast Mountains of the Squamish Area.**

*All cultural information and material presented in this paper is the sole property of the Squamish Nation.

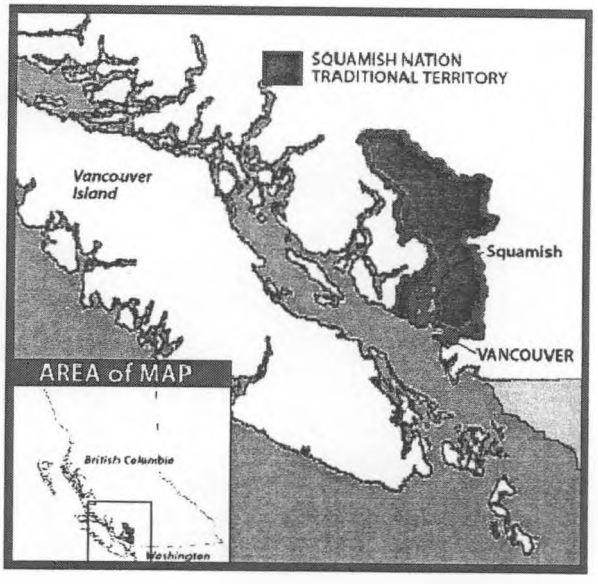


*Figure 5:2.* **Squamish Nation Traditional Territory.**

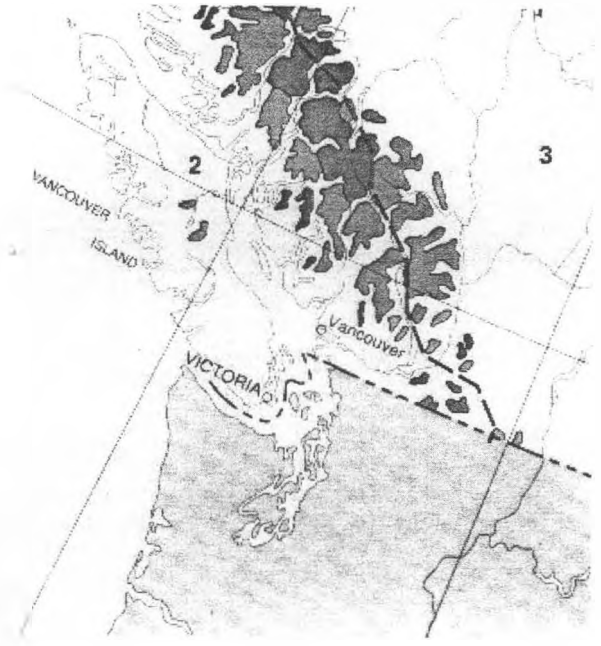


*Figure 5:3.* **Glacial Areas along the south Coast of British Columbia.**

This review of the role of mountains in traditional Squamish life illustrates that there are many intriguing themes that offer insights for researchers in the fields of archaeology, anthropology and geology. Many of the Squamish people's traditional beliefs, stories, legends and activities took place in this mountainous terrain. The information in this paper combines traditional knowledge with archaeological knowledge so that these mountainous areas that are sometimes viewed as harsh and inaccessible can now be viewed as areas that have a unique, complex, natural and cultural relationship.

## The Modern Landscape

The main water drainage in the study area is the Squamish River, of which the Cheakamus, Mamquam, Elaho and Ashlu are its major tributaries. Physiographically the area is highly mountainous, with summits reaching 2000-3000 meters. In Figure 5:3, the distribution of glaciers along the south coast of British Columbia is variable. Dark areas mark low mountains with less than 10% glacial ice cover, light areas are mountains of moderate elevation and 10-40% glacial ice cover, medium areas are mountains of high elevation with 40-60% glacial ice cover (Ryder 1998:1-39). With a maritime weather influence of heavy winter snow packs, many of these areas are still in an ice age.

Notable peaks include Mount Garibaldi, the Black Tusk, Mount Fee, Mount Cayley, the Tricuni Peaks and Tantalus Range. On these mountains the topography can range from steep and rugged, to gentle sloping meadow tablelands, creating habitats suitable for a diversity of plants and animals. In rocky areas little in the way of plant or animal life exists, yet on the alpine meadows several species of plants and animals reside. Plants that grow at high elevations often ripen later than their lowland equivalents. Animals and people are aware of this seasonal "up-slope ripening" and hence follow the fresh food up-slope in the late summer to early fall seasons. (Arno and Hammerly 1984; Pojar and McKinninon 1994).

In total, the modern environment of the Squamish region includes three biogeoclimatic zones (Meidinger and Pojar 1991:52). First the Coastal Western Hemlock zone lies at low elevations near the ocean and along river valleys, second the Mountain Hemlock zone lies above the Coastal Western Hemlock, up to elevations of approximately 1200 meters (Meidinger and Pojar 1991:113-124; Pojar and McKinnon 1994:15-20). Its growing season is short due to the heavy snow packs common along the Coast Mountains (Arno and Hammerly 1984; Ryder 1998: 1-38). At higher elevations the Mountain Hemlock zone becomes patchy and eventually becomes subalpine parkland. Trees such as subalpine fir (*Abies lasiocarpa*) and mountain

hemlock (*Tsuga mertensiana*) are found at higher elevations and are separated by an interfingering heath and meadow alpine plant communities (Arno and Hammerly 1984:95-97; Woodward et al. 1995:217-225). Third and above the Mountain Hemlock Zone is the Alpine Tundra Zone (Meidinger and Pojar 1991:263-274; Bennet 1976). Essentially treeless, it has a very short growing season and all plant growth is stunted in size (Lettmerding 1976). Alpine plant communities can be divided into three main types, Subalpine Parkland, Heath, and Mountain Meadow (Arno and Hammerly 1984:102-107; Pojar and McKinnon 1994:15-20).

Notable mammal species that seasonally inhabit alpine areas are black bears (*Ursus americanus*), grizzly bears (*Ursus artos horriblus*), mountain goats (*Oremanus americanus*), elk (*Cervus canadiaesis leucodontus*), deer (*Odocoilus hemionus hemionus*), snowshoe hare (*Lepus americanus pallidus*), and yellow-bellied marmots (*Marmmota flaviventis avara*) (Chadwick 1983; Lee and Fundenberg 1982 a and b; Reichel 1986:111-119). These mammals prefer no individual plant community (Chadwick 1983; Lee and Fundenberg 1982a and b), although many smaller animal species prefer the subalpine parkland and mountain meadows to heath communities. Heath plant communities are more typical of stable sub-alpine habitats and hence are considered to be a more developed mature, but less diverse plant community (Reichel 1986:111-119).

Bird species that seasonally inhabit the alpine region include Canada goose (*Branta canadiaensis*), grouse (*Dendragrapus abscurus*) and ptarmigan (*Lagopus lecurus*) (Meidinger and Pojar 1991:272).

## The Ancient Landscape

The landscape of the Squamish region has been transformed numerous times. The current environmental setting described above is a fairly recent phenomenon. A complex series of geological units lies at the base of this landscape. The Coast Mountains of the south coast are made up of large lava flows (ca. 145-65+ million years old). This plutonic complex served as a foundation on which more recent lava flows were built (Brooks and Friele 1992:2425-2428; Jounrneay et al. 1996). These recent lava flows range in age ca. 2.3 million to 10,000 [cal 11,400] years BP. Most notable of these recent eruptive lava flow events (12,000-10,000 [cal 14,000-11,400] BP) are those of the stratovolcano, Mt. Garibaldi, whose many eruptions built up a cinder cone on top of a solid dacite core (Mathews 1975). Many of these eruptions spilt lava on top of Wisconsinan glacial ice and created numerous flows and patchy outcrop deposits of basalt, andesite, dacite, rhyodacite and an obsidian like material geochemically defined as "glassy rhyodacite" (Carter 2000: 9-27; Reimer 2000).

At 12,000 [cal 14,000] BP sea levels were approximately 200m above present day levels. The marine limit was located just south of the Elaho and Squamish river confluence, some 50 km north of the present day Squamish river delta (Freile and Clague n.d.). As deglaciation of the Squamish valley took place ca. 10,700-10,200 [cal 12,400-11,700] BP the southwestern slopes of Mt. Garibaldi fell into the lower Squamish River Valley, creating the Creekeye fan deposits (Freile and Hickon n.d). Examinations of backhoe trench profiles of this fan deposit indicate that sea levels were 30-40m above present day levels. By 9800 [cal 11,300] BP sea levels fell to 30m above present levels (Freile and Clague n.d.; Freile and Hickon n.d.) and the rise in temperature of the early Holocene warm interval pushed tree lines 60-120m up slope (Clague and Mathews 1989:277-280; Clague et al. 1992:153-167; Evans 1997:81-92; Hebda 1995:55-79). This shift in tree line altered mountain plant and animal communities, by either expanding or shrinking specific habitats (Figure 5:4).

The curves in Figure 5:4 indicate the relationship of the proportion of land area and altitude in two south coast mountain drainage basins. In these coast mountain basins alpine areas presently occupy 38 and 17% of the area. A 200m rise in timberline would reduce this to 21 and 3% respectively, and would have probably affected plant, animal, and human use of these areas (Reimer 2000; Ryder 1998:17).

By 8000 [cal 8900] BP sea levels dropped 12m below present day levels, yet by 6000 [cal 6800] BP sea levels had risen to 4m below present day levels. Also by 6000 [cal 5800] BP the Squamish river delta had aggregated to or near the confluence of the Ashlu River, or approximately 28 kilometers north of its present day position (Freile and Clague n.d.; Freile and Hickon n.d.). The tree line remained at 60-120m above present day positions until ca. 6000 [cal 5800] BP when temperatures dropped slightly but precipitation increased, resulting in the Garibaldi phase of neoglaciation (Mathews1975; Porter and Danton 1967:177; Ryder and Thompson 1986; Ryder 1989:74-76). Again this altered plant and animal distributions (Reimer 2000). By 5000 [cal 5700] BP

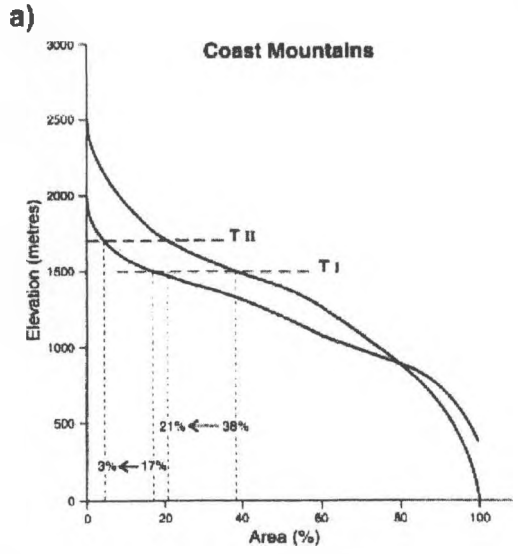


***Figure 5:4.*** **A Hypsographic curve for the south Coast Mountains (after Ryder 1998:17).**

the climate had changed to near present-day conditions and the tree line to near present day elevations.

From 6000 to 2250 [cal 6800-2300] BP sea levels had risen to near present-day levels, and remained relatively stable until modern times. Falling from the slopes of Mt. Cayley ca. 4800 [cal 5500] BP a large landslide impounded the Squamish River for a short time period (Evans and Brooks 1991:1365-1374; Brooks and Hicken 1991: 1375-1385). This large landslide event may have had an impact on the Squamish river salmon runs. By 3000 [cal 3100] BP the Squamish river delta had moved as far south as the confluence of the Cheakamus River and Cheekeye fan deposits (Freile and Clague n.d.; Freile and Hickon n.d.). In the mountains ca. 3300-1900 [cal 3500-1850] BP the Tiedemann advance of neo-glaciation occurred, lowering tree lines and once again altering plant and animal distributions (Reimer 2000; Ryder and Thompson 1986; Ryder 1989:74-76). From 2250 [cal 2250] BP the Squamish river delta had moved south passed the Mamquam river and towards its modern position (Freile and Clague n.d.; Freile and Hickon n.d.). At 1100 [cal 1000] and 500 [cal 500] BP additional landslide events in the Mt. Cayley area impounded the Squamish River (Evans and Brooks 1991:1365-1374; Brooks and Hicken 1991: 1375-1385), possibly affecting salmon runs. Over the millennia the dramatic changes in the landscape would have had a profound effect on the plants, animals and people of the Squamish region. With all these modifications to the landscape, are there any correlative events recorded in the ethnographic accounts, and any archaeological signatures in these mountainous areas?

## The Squamish People

The Squamish are a distinct part of the Coast Salish cultural group and speak their own unique language "Sko-mish" (Suttles 1990:453-475). The Musqueam to the south, the Sechelt and Lil'wat to the north, and the Tsleil-Waututh and Katzie to the south and east are Squamish neighbors (Suttles 1987).

Squamish traditional territory lies in the lower mainland region of southwestern British Columbia. The Squamish define the boundaries of their traditional territory (Figure 5:2) as follows: from Point Grey to Roberts Creek on the west, then north along the height of land to the Elaho river headwaters, including all of the islands in Howe Sound and the entire Squamish valley and Howe Sound drainage. The boundary then extends southeast to the confluence of the Soo and Green rivers north from Whistler, then south along the height of land to the Port Moody area, including the entire Mamquam river and Indian Arm drainage; then west along the height of land on the south side of Burrard Inlet to Point Grey.

Ethnographically the Squamish can be characterized as a semi-sedentary fishing, hunting and gathering group with a complex social and political structure. During winter months extended families lived in large, long, shed roof plank houses. These houses formed villages usually found along rivers and the ocean sides where inter-tidal and ocean resources could easily be obtained (Barnett 1955; Bouchard and Kennedy 1976 a and b; Bouchard and Turner 1976; Matthews 1955; Suttles 1990:453-475).

In summer the large family groups living in these villages spread out across the landscape for hunting, fishing, and gathering in all surrounding biogeoclimatic zones. The location of their temporary settlements was determined by the availability of important food resources or the resources desired for a specific need. In these temporary camps the Squamish built and lived in small mat lodge structures (Barnett 1955; Bouchard and Kennedy 1976 a and b Bouchard and Turner 1976; Matthews 1955 and Suttles 1990:453-475).

More detailed accounts of Squamish traditional life are found in (Barnett 1955; Bouchard and Kennedy 1976; and Bouchard and Turner 1976; Hill-Tout 1978: 27-56; Matthews 1955; Suttles 1990:453-475).

## Squamish Accounts of High Altitude Resource Use

### Fauna

The most commonly hunted animals by Coast Salish peoples at high altitudes were mountain goats (Bouchard and Kennedy 1976; Drucker 1953:7-50; 1955:51-52; Duff 1952:71-73; Kennedy and Bouchard 1983:25-40; 1990: 453-475). Several areas in the Squamish river drainage are ethnographically known for high altitude floral and faunal resource pursuits, especially mountain goats (see Bouchard and Kennedy 1976; Bouchard and Turner 1976; Hill-Tout 1978: 27-56; Kennedy and Bouchard 1983:25-40; Matthews 1955; Suttles 1990:453-475). Examples of areas that were noted for their abundance of mountain goats are the following:

> A number of mountains thirty kilometers north of the Squamish river mouth, where in the upper river valley there was a village traditionally known as "Pu'yam." The inhabitants of this village were well known for their skills in hunting mountain goats. The area surrounding this village is very mountainous, with some local mountains having specific names.
>
> The mountains above the northwest of the confluence of the Squamish and Cheakamus rivers "Kiyayekep Nexwyuxwm".
>
> The mountains above the Elaho river valley "Sxel'tskwut".
>
> Goat Ridge, a long mountain ridge southeast of the modern town of Squamish "Ntsewxsus".
>
> The mountains above Deeks Creek and the mountain now known as The Lions, which drains into Howe Sound. Traditionally these areas are known as "Ch'ich'iyu'y Elxwikn."
>
> The large mountains above the modern pulp mill Woodfiber were traditionally known as "Swi'ya't."
>
> The Tantalus Range is called "Tswilix" by the Squamish, is named after a legendary Mt. Goat hunter (Bouchard and Turner 1976; Bouchard and Kennedy 1976; Hill-Tout 1978: 27-56; Mathews 1955; Suttles 1990:453-475).

"Xwuxwelken", or gray haired head, is the Squamish name for a mountain goat. A young mountain goat is called "i7imkiya", while an old one is referred to as "sinakw". Mountain goats were hunted mostly after the rutting season in late November, when they are at their fattest and their fur is at it's best. When hunted in the spring mountain goat meat was said to have tasted like cedar, due to goats eating the tips of cedar boughs in times of deep snow (Bouchard and Turner 1976; Bouchard and Kennedy 1976; Duff 1952:71-73; Hill-Tout 1978: 27-56; Mathews 1955; Suttles 1990:453-475).

The actual hunting of mountain goats was considered dangerous, and was thus reserved for those with "the power" of the mountain goat. Even with the aid of specially trained hunting dogs and after receiving the power for hunting mountain goats, a young man must still apprentice under an older hunter. Eventually training would pay off in the reception of the power through a spirit quest. Spirits came to young men in dreams and while fasting in the wilderness (Bouchard and Kennedy 1976; Drucker 1955:51-52; Duff 1952:71-73; Hill-Tout 1978: 27-56; Kennedy and Bouchard 1983:25-40; Mathews 1955).

In following goats in the mountains the young men must "keep their smell from the goats" (Bouchard and Kennedy 1976: 45-46). If this could not be done, the goats could detect the hunters and success in the hunt would not be achieved. Masking their human smell, hunters would have to bath often, rub cedar boughs over their bodies and cover themselves with a mountain goat wool blanket. Obtaining enough mountain goat wool off the trees in highland areas, where mountain goats would rub themselves to shed their winter coats, would be one way to make a blanket. Another way a blanket could be obtained was when it would be passed down from an older hunter to a younger one. In addition to special powers, hunters who traveled into high country areas also carried a long pole or "alpenstock" to be used for aid in mountaineering in the steep slopes of the Coast Range (Bouchard and Kennedy 1976; Drucker 1955:51-52; Duff 1952:71-73; Hill-Tout 1978: 27-56; Kennedy and Bouchard 1983:25-40; Mathews 1955).

Going on a prolonged mountain goat hunting trip was called "tl'elhnayem". People with status owned areas, usually near their village, where mountain goats were hunted, (Bouchard and Kennedy 1976). Mountain Goat hunters would occasionally hunt alone, but three or more hunters usually comprised a hunting group. Mountain goats are very difficult animals

to track, approach and hunt. A hunter would slowly stalk across mountain slopes and ridges in close connection with the surround terrain. Knowledge of predominant wind directions and natural hiding places such as large rocks and knolls would aid the hunter in stalking prey. Once the hunter got close enough to the mountain goat he would utilize a spear thrower, a bow and arrow or long spear to impale the mountain goat or in other cases drive the mountain goat(s) over a cliff (Bouchard and Kennedy 1976; Drucker 1955:51-52; Duff 1952:71-73; Hill-Tout 1978: 27-56; Kennedy and Bouchard 1983:25-40; Mathews 1955).

Once killed, a mountain goat could be used several ways. The meat could be cooked and eaten by boiling or roasting over a fire. A freshly killed mountain goat could also be cooked by igniting a fire with wood kindling within the rib cage of the goat. This would provide both heat and a cooked meal for the hunter. The meat could also be preserved by smoke drying in the mountains, and the fat could be rendered into cakes to be used later. Mountain goat fat was used to cover the skin in cold weather, or boiled down to make butter like cakes. The horns of a mountain goat were soaked in water to be made pliable, then split and shaped into spoons called "xa7lew" (Bouchard and Kennedy 1976; Bouchard and Turner 1976; Drucker 1955:51-52; Duff 1952:71-73; Hill-Tout 1978: 27-56; Kennedy and Bouchard 1976; Kennedy and Bouchard 1983:25-40; Mathews 1955).

The skins of the mountain goat were highly valued and figure in some of the legends of the Squamish people. A young man in pursuit of the woman he desired to marry could use the pelts of a mountain goat as a tribute payment to the woman's family. Mountain goat wool blankets were made by combining the wool with dog fur and the fluffy seeds of the fireweed plant (Bouchard and Kennedy 1976; Bouchard and Turner 1976; Hill-Tout 1978: 27-56; Kennedy and Bouchard 1983:25-40; Gustafson 1980:37-64; Mathews 1955:23-26).

In ceremonial contexts, mountain goat wool blankets were highly valued, and were distributed at potlatches as a sign of wealth. If not enough mountain goat wool blankets were acquired; the family holding the potlatch would tear up the existing blankets in order to give something to everyone. These blanket scrambles were common at larger feasts and potlatches (Barnett 1955; Bouchard and Kennedy 1976; Bouchard and Turner 1976; Gustafson 1980:37-64; Hill- tout 1978: 27-56; Matthews 1955:23-26; Suttles 1990:453-475).

Other animals hunted in the high mountains included deer and elk. These animals were hunted in much the same way as mountain goats. The meat and skins of these ungulates were used, but not viewed as high status items since the hunting grounds where these animals were obtained were not owned. High elevation areas where these animals were hunted include: The mountains above the confluence of the Squamish and Ashlu Rivers; the slopes around what is know called Mount Garibaldi; the large islands with mountains know now as Anvil, Gambier; and Bowen Island (Barnett 1955; Bouchard and Kennedy 1976; Drucker 1955:51-52; Duff 1952:71-73; Kennedy and Bouchard 1983:25-40; Matthews 1955; Suttles 1990:453-475).

## Flora

The most important plant resource for coastal groups was cedar. Available at almost all elevations, cedar was used in making everything from houses, canoes and rope, to clothing. Many other trees were used for construction materials and fuel. Some plants were used as medicine and such knowledge was owned and usually kept secret. Many of the medicines were part of a tea-like drink, while others were applied directly to the skin (Bouchard and Turner 1976).

Major plant foods that contributed variety to the diet were the numerous species of berries found throughout the coastal environment, particularly those harvested in large quantities at high elevation picking grounds. Chief August Jack Khahtsahlano gives a description of this process (Matthews 1955:10):

> Them berries. Indian woman know how to dry berries, dry lots berries; just like raisins. Dry them first, then press into pancakes, make them up in blocks just like pancakes, about three pounds to block. Stack cakes in high pile in house; when want to cook, break piece off

The process of berry drying involved the excavation of a long (2-12m) narrow (approx. 1 m), and shallow (approx. 20cm) trench. On one side of this trench back dirt was piled and on the other a log would be placed. Over top of the back dirt and log a rectangular frame was constructed. Over top this frame a number of woven mats were placed and then vast quantities of berries were placed on these mats. In the trench a small, smoldering and smoky fire was lit. This fire dried the berries and kept insect pests away form the processed food (Mack 1989:49-58; Mack and McClure 1998:1-7; Frank 2000: 21-

40). Once dried and cut into cakes as described above, the process could be repeated, until enough berry cakes were made, and transported back to the village (Bouchard and Turner 1976).

Plant preparation in Squamish society was exclusively a woman's job. Many Squamish women aspired to be "good berry" pickers. The first harvest of berries in late spring and early summer was distributed to all in the village since berry picking grounds were not owned and were accessible to all. As summer turns to falls the up slope ripening of berries occurs. By mid to late fall many sub-alpine meadows could be characterized as large berry fields, ready for mass harvesting. Other plant foods were roasted in pits, or needed no preparation and were eaten raw (for more detailed accounts of plant uses see Turner 1975 and 1998).

## Archaeology at High Elevations in the Squamish Region

Between 1996 and 2001 a number of judgmental archaeological surveys were conducted in mountainous areas of Squamish Nation traditional territory (Howe 1997; Reimer 2000). Survey design was aimed at finding signatures of Squamish ethno-historical accounts of use of mountainous terrain and its resources, and was tempered with knowledge of the dramatic changes found in the paleoenvironmental record. Table 5:1 lists the number of sites and site types that were located during the last 5 years of high elevation survey. Lithic scatters are the most common site type found at high elevations. Many of these sites are associated with procurement of lithic raw materials; most notable is "Garibaldi Glassy Rhyodacite." Camps, rock-features, and culturally modified trees are less common while lithic workshops, berry-drying trenches, and isolated finds are even less so. It is apparent that these sites verify the Squamish accounts of high elevation faunal and floral resource use, and land occupancy. Furthermore the distribution of these sites ranges from nearby ethnographically recorded villages to more remote mountain ranges, including; 1) The Squamish Cheakamus divide; the mountainous areas surround the resort town of Whistler, 2) the remote areas of Garibaldi Provincial Park, 3) the steep slopes of Mt. Garibaldi and, 4) the steep mountains of Howe Sound. A more ore detailed discussion of the role of these sites can be found in Reimer (2000).

In Table 5:2 it is apparent that archaeological sites in the mountains of the Squamish region range in elevation from 1460 to 1850 m above sea level, and in size from 1x1 m to 200x200m. Most sites tend to cluster at elevations of 1640m asl and are approximately 85x 85m in size, with artifact assemblages occurring in low densities.

As indicated in Table 5:3, sites at high elevations are most likely to be found in the sub-alpine/montane forest ecotone, with very few sites actually located in the true alpine zone. Most sites in the region are found in sheltered cirque basins and near tarns (sub-alpine lakes), along ridges, benches and moraines, where it is easiest to access a wide variety of resources (faunal, floral, shelter, fuel and water).

Considering the dramatic past of the mountainous environment in this region, it is possible to model the changes in the environment that surround these sites (Table 5:4). By examining the local environmental conditions and the locations of nearby glaciers it is possible to predict what type of landscape change has occurred at these sites over the span of the Holocene. The modeling of site location is a useful exercise to aid in bracketing the potential age of each of these sites.

**Table 5:1. Site Types in the Squamish/Garibaldi Region.**

| Site Type | Number | Percent |
|---|---|---|
| Lithic Scatter | 8 | 46% |
| Camp | 2 | 12% |
| Quarry/Workshop | 1 | 6% |
| Rock shelter | 0 | 0% |
| Berry Drying Trench | 1 | 6% |
| Cairn/ Petroform | 2 | 12% |
| Isolated Find | 1 | 6% |
| Historic | 0 | 0% |
| Culturally Modified Tree | 2 | 12% |
| Game Drive | 0 | 0% |
| Totals | 17 | 100% |

**Table 5:2. Site Attributes.**

| Attribute Range | Mean |
|---|---|
| Elevation 1460m-1850m | 1641.36m |
| Site Size 50m-40, 000 | 7572m2 |
| Sample Size | 17 |

**Table 5:3. Environmental Setting of Sites.**

| Vegetation Zone | Number | Percent |
|---|---|---|
| Alpine | 3 | 18% |
| Subalpine | 14 | 82% |
| Totals | 17 | 100% |

**Table 5:4. Modeling A Site's Effective Environment.**

| Site | Landform | Current Zone | Little Ice Age | Tiedemann Advance | Garibaldi Advance | Hypsithermal |
|---|---|---|---|---|---|---|
| DkRr1 | ridge | subalpine | subapine/alpine | subalpine/ alpine | subalpine/ alpine | montane forest |
| DkRr2 | ridge | subalpine | subapine/alpine | subalpine/ alpine | subalpine/ alpine | montane forest |
| DkRr3 | ridge | subalpine | subapine/alpine | subalpine/ alpine | subalpine/ alpine | montane forest |
| DkRr4 | ridge | alpine | alpine | alpine | alpine | alpine |
| DkRr5 | ridge | subalpine | alpine | alpine | alpine | montane forest/subalpine |
| DkRr6 | ridge | subalpine | alpine | alpine | alpine | montane forest/subalpine |
| DkRr7 | ridge | subalpine | alpine | alpine | alpine | montaneforest/subalpine |
| DkRr8 | moraine/lake | subalpine | alpine | alpine | alpine | montane forest/subalpine |
| DkRr9 | bench | subalpine | subalpine | subalpine | subalpine | Montane forest |
| DlRs3 | ridge | subalpine | subal- pine/alpine | subalpine | subalpine | montane forest/subalpine |
| DlRs 4 | bench | subalpine | alpine | alpine | alpine | montane forest/subalpine |
| EaRr4 | moraine/lake | alpine | alpine | alpine | alpine | subalpine |
| EaRt1 | cirque/tarn | subalpine | alpine | alpine | alpine | subalpine |
| EaRt2 | cirque/tarn | subalpine | alpine | alpine | alpine | montane forest/subalpine |
| EaRt3 | Cirque/tarn | alpine | alpine | alpine | alpine | subalpine |
| EaRt4 | cirque/tarn | subalpine | alpine | alpine | alpine | montane forest/subalpine |
| EaRt5 | moraine/bench | subalpine | alpine | alpine | alpine | montane forest/subalpine |

## Temporally Diagnostic Artifacts from High Elevation Site in Squamish Traditional Territory

Only six temporally diagnostic biface/ projectile points have been identified in the sites located in sub-alpine and alpine contexts (Figures 5:5 & 5:6). The types of projectile points shown in Figure 5:5 from right to left date from known time periods on the southern Northwest Coast (Carlson 1983, 1983b; 1990; 1996b; Fladmark 1982; Mitchell 1990). The large biface/ projectile point base at far right is from EaRt 2 (Figure 5:5), and while the type is common in all time periods, this specimen was found along with cobble/ flake tools and cores, more typical of early time periods. The complete, stemmed, square base projectile point is from DkRr 5 and resembles others recently found in the Stave Lake locality (Mclaren and Owens 2000), and resembles points from the Intermontane Stemmed Point Tradition (10,000-7000 [cal 11,400-7800] BP) (Carlson 1996b, Rice 1972). The base of this point has been thinned via pressure flaking and has faint basal grinding. The point bases (Figure 5:6) are typical of those found in the Charles Culture Type (5500-3500 [cal 6300-3800] BP), and Marpole phase (2500-1500 [cal 2500-1400] BP) and are from EaRt 4

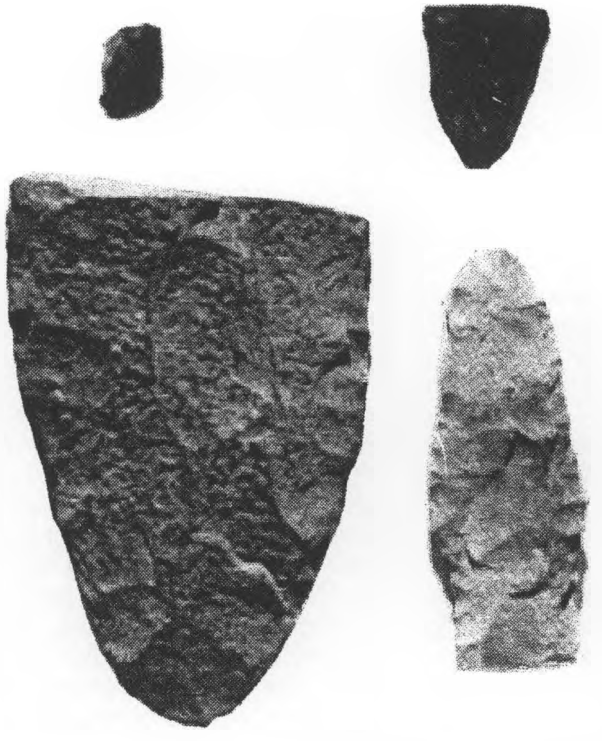

*Figure 5:5.* **Projectile Points/Bifacesfrom High Elevation Sites in the Squamish Region. Actual size.**

(Mitchell 1990; Burley 1989). Third from the right (Figure 5:5) is a projectile point base similar to those found in the Lochnore phase (5500-3500 [cal 6300-3800] BP) and is from EaRr 5 (Stryd and Rousseau 1996). The small projectile point base at far left (Figure 5:5) resembles those common to the Late phase (1500-200 [1400-200] BP) of the south Northwest Coast cultural sequence and is also from EaRr 5 (Mitchell 1990).

Other temporally diagnostic artifacts found in sites in sub-alpine and alpine settings are microblades and cores (Figure 5:7). These implements are found at DkRr 1 and 4, EaRt 5, EaRr 5. At DkRr 4, EaRt 5 microblades and cores are the only artifacts found at these sites, while at DkRr 1 and EaRr 5 microblades and cores are found along with projectile points and flake tools. On the southern Northwest Coast microblade technology is found from 7500-1500 [cal 8400-1400] BP (Fladmark 1982). Since only microblade technology is found at DkRr 4 and EaRt 5 it is possible that these sites date to earlier time periods. At DkRr 1 and EaRr 5 microblade technology is less common and it is likely these sites date to later time periods.

## Spatial and Temporal Distribution of Garibaldi Obsidian

The occurrence of a readily identifiable, common, well known lithic material, "Garibaldi glassy rhyodacite" or "Garibaldi obsidian"is an additiona laid in the determination of the age of sites found at high elevations in Squamish territory. Garibaldi obsidian has visually identifiable (Table 5:5) characteristics, and has also been analyzed by X-Ray fluorescence and by geo-chemical and thin section analysis (Carter 2000; Reimer 2000). Initial distribution diagrams by Reimer (2000) focused on the general spatial and temporal distribution of this material. With additional data and analysis of Garibaldi obsidian from sites in a wide range of environments and locations more complete spatial and temporal analysis is found in Figures 5:8-5:12.

Results of X-Ray fluorescence of Garibaldi Obsidian "fingerprinting" indicate that the most common chemical signature peaks in the spectrum are Iron (Fe) Strontium (Sr), and Zirconium (Zr) (Nelson 1975; Nelson et al. 1975). Trace element analysis by Carter (2000:9-25) found that the most common trace elements are 68-75% SiO2, 12-14% Al2O3, and 5-14% Na2O.

**Table 5:5. Geological Visual Description of Garibaldi Obsidian.**

| Property | Garibaldi Obsidian |
|---|---|
| Crystal Structure | none |
| Texture | very fine to fine grain |
| Cleavage | little |
| Fracture | conchoidal |
| Hardness | 5-6 |
| Color | 10 YR 2/1 |
| Luster | glassy |
| Banding | Flow Type |
| Inclusions and other characteristics | Iron Oxide, Biotite<br>Lack of spherulites |

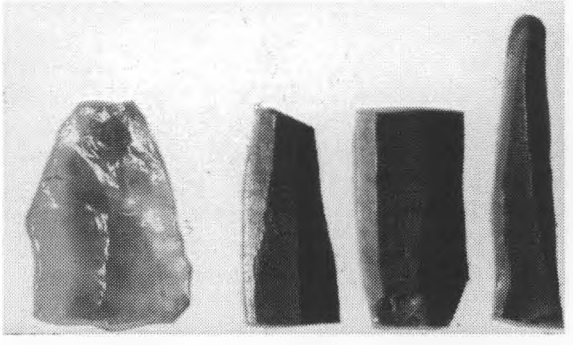

***Figure 5:7.*** **Microblades from High Elevation Sites in the Squamish Region. Actual size.**

The well-defined visual, broad-spectrum trace element database for Garibaldi obsidian permitted a literature search of southern North-west Coast archaeology to locate occurrences of Garibaldi Obsidian. While incomplete at this time, due to yet to be published or reported data, it was found that numerous sites throughout the southern North-west Coast have Garibaldi obsidian within their deposits. The following discussion of the nature of the distribution of this material is organized by the following archaeological time periods; Early Period, Charles Culture Type, Locarno Beach Phase, Marpole and Late Phases (Carlson 1996b; Fladmark 1982; Matson and Coupland 1995; Mitchell 1990).

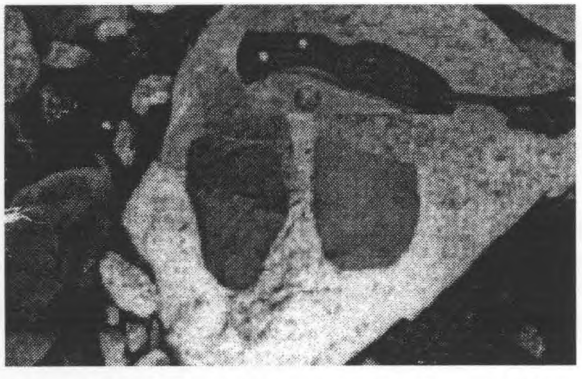

***Figure 5:6.*** **Projectile Point Bases from EaRt 4.**

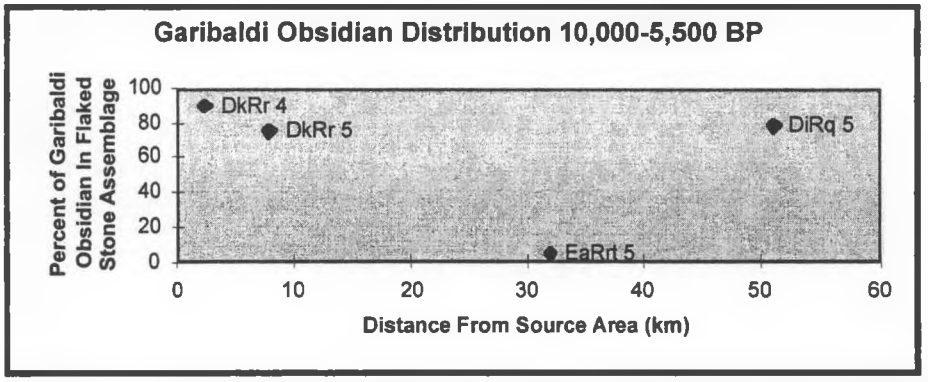


*Figure 5:8.* **Distribution of Garibaldi Obsidian 10,000-5500 [cal 11,400-6300] BP. N=229.**

## The Early Period 10,000-5500 [cal 11,400-6300] BP

Found at four sites, ranging from alpine to interior mountainous lakeside settings (Figure 5:8), Garibaldi obsidian was utilized in the Early Period at sites DiRq 5, DkRr 4, DkRr 5, EaRt 5 (Reimer 2000, 2001; Wright 1996). Examination of site assemblages indicates that flake tools and microblades were being manufactured.

The source area for Garibaldi Obsidian is located in sub-alpine and alpine areas behind Mt. Garibaldi, in the upper reaches of Ring Creek (Reimer 2000: 178). It is likely the material formed during the eruptions of Mt. Garibaldi. During these eruptions ice sheets covered the surrounding landscape. When the lava from these eruptions came into contact with the glacial ice, the obsidian was formed. Therefore there is no single bedrock outcrop of the material since the area around the mountain has been shaped and re-shaped by a combination of volcanic, glacial, colluvial and alluvial processes. Pieces of raw material can be found around the higher elevation slopes of Mt. Garibaldi and range from cobble to granule size (Reimer 2000: 178-179). It is likely that after deglaciation Garibaldi obsidian would have been easy to locate on the freshly exposed ground surfaces near the source area.

## Charles Culture Type 5500-3500 [cal 6300-3800] BP

During the Charles Culture Type time periods the spatial distribution and numerical occurrence of Garibaldi Obsidian increases from the Early Period (Figure 5:9). The material is being utilized from alpine to lowland river delta and inlet to island contexts. The distribution of Garibaldi obsidian during this time period is suggestive of several possible distributive steps: (1) The material was accessed directly by people living in the Squamish area, and is then brought to lowland village contexts at DkRr 6, EaRr 5, and DkRs 6 ( ARCAS 1999; Reimer 2000, 2001), and was (2) then traded to inhabitants of Burrard Inlet, the Fraser River delta and upriver villages at DiRn 1, DiRn 2, DhRo 17, DhRn 14, DhRn 17, DhRq 22, DgRr 2, DgRs 1,and DhRs 1 (ARCAS 1996; 1999; Carlson 1994; Ham et al. 1984; Millennia 1998a, b, and

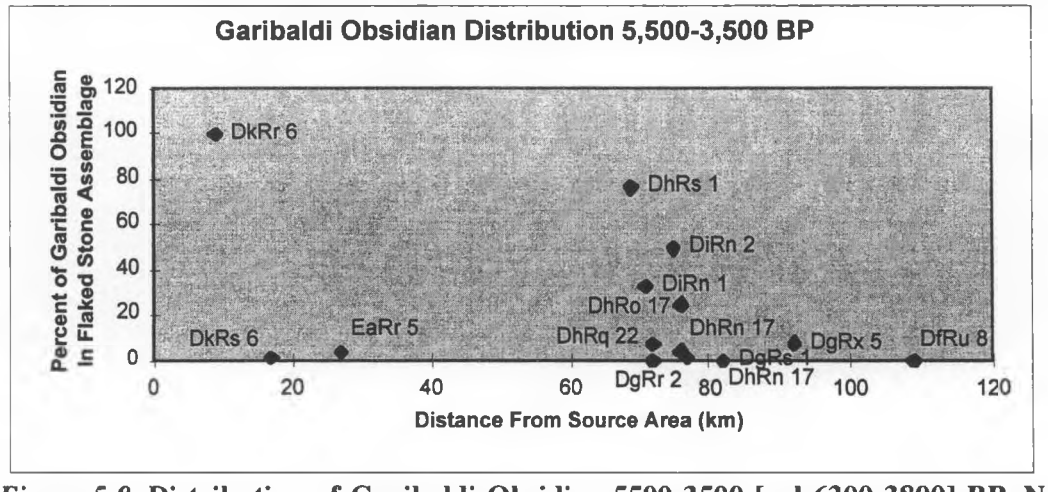


*Figure 5:9.* **Distribution of Garibaldi Obsidian 5500-3500 [cal 6300-3800] BP. N=61.**

c; Murray 1982; Reimer 2000; Spurgeon 1992; 1994). 3) Further trade took place either directly or down the line from person to person, to the Gulf Islands at DgRx5 and DfRu 8 (Carlson 1970a, 1994; Murray 1982).

Access to the source area must have been limited to those people with knowledge of where to obtain the material. The material was probably an important resource that had value not only to those who obtained it, but also to those who did not have direct access to the source. The occurrence of the material in archaeological sites shows that flake tools, projectile points and microblades were being manufactured. The material could have been used to trade for other resources not found in the Squamish area, or used in gift giving in ceremonial contexts to strengthen marriage/ kinship ties throughout the region (Reimer 2001). Therefore this may be an indication of specialist trad-ers during the Charles Culture Type time period, with specific individuals accessing specific high elevation areas to obtain specific resources suchas Garibaldi obsidian and/or rare animals such as mountain goats (Reimer 2000, 2001).

During the Locarno Beach phase a sharp decline in the utilization of Garibaldi obsidian occurs. It is found at two sites DiRu 15 (ARCAS 1999) and DhRq 21 (Patenaude 1985), and totals only 3 small pieces of debitage. Clearly a change had taken place throughout the region to affect a previously well-established lithic trade. At this time, high in the Coast Mountains the numerous glaciers that cover the alpine regions were expanding enough to cut off the source of Garibaldi obsidian. A focus towards an increased lowland resource economy and sedentism developed, and a ground stone industry became established. It is at this time period that the first strong indications of well established villages and associated resource procurement sites along the southern Northwest Coast are found (Ames and Maschner 1999: 147-176; Carlson and Hobler 1993: 25-52; Matson and Coupland 1995:145-182).

## Locarno, Marpole and Late Period 3500-200 [cal 3800-200] BP

During the Marpole Phase utilization of Garibaldi obsidian was at its maximum. The material is distributed widely from alpine sites; DkRr1-3; river valleys and delta sites, DhRs 1, EaRu 5, and DhRl 16; to ocean side sites, DiRu 19, 56 and 60, DhRt 5, DhRr 8,; and lake side sites, DhRo 26; and to the Gulf and Vancouver-Islands, DgRx 36, DgRw 4, 199 and 204, DhRx 16, and DgRv 3 (ARCAS 1999; Burley 1980, 1989; Carlson 1994; Grier 2000; Murray 1982; Millennia 1998; Reimer 2000). Also at this time the highest volume of material is found across the region in the forms of projectile points, bifacial tools, microblades, and flake tools. A similar trade pattern to that found during the Charles Culture Type is found during the Marpole Phase, since 1) the neoglacial advance in the Coast Mountains had ended, allowing for wider access to high elevation areas and its resources and 2) the establishment of specialists during this time period required the use of these areas and the need for Garibaldi Obsidian. During this time period Garibaldi obsidian is also found in burial contexts at DgRw 4, 199, and 204, indicating that it may have ideological qualities as well as an economic value (Burley 1989: 51-80; Curtin 1998; Reimer 2001).

The Marpole phase is widely recognized as a time period of cultural elaboration (Ames and

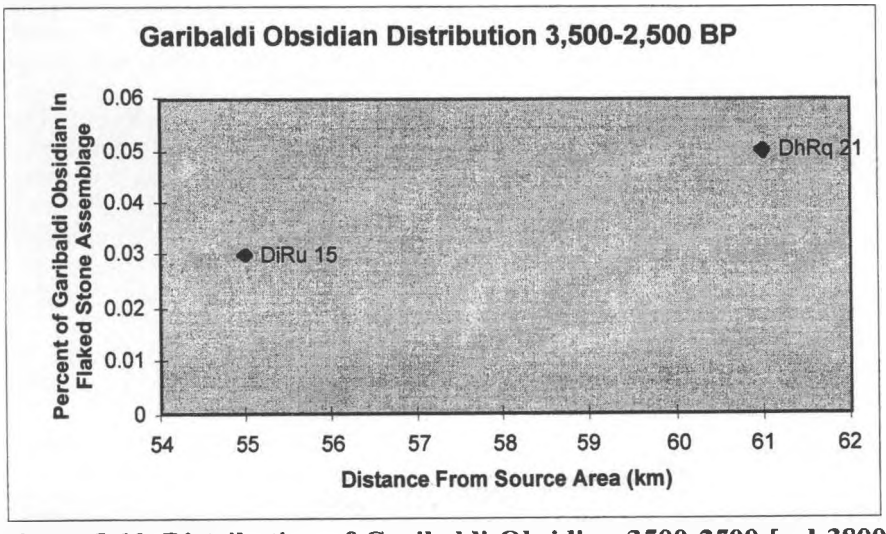


***Figure 5:10.*** **Distribution of Garibaldi Obsidian 3500-2500 [cal 3800-2700] BP. N=3.**

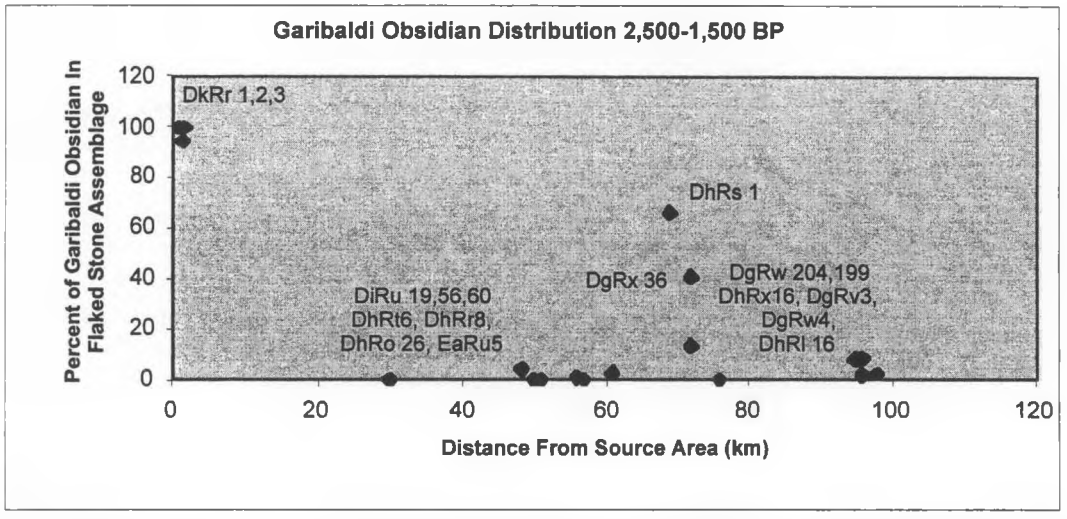


*Figure 5:11.* **Distribution of Garibaldi Obsidian 2500-1500 [cal 2700-1500] BP. N=5530.**

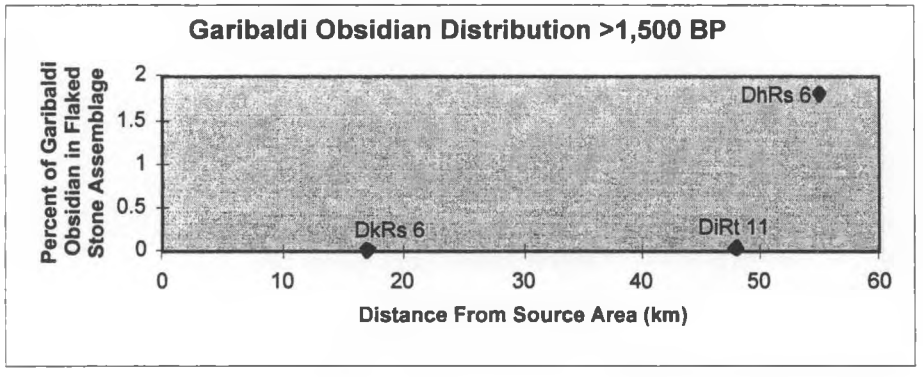


*Figure 5:12.* **Distribution of Garibaldi Obsidian >1500 [cal 1500] BP. N=20.**

Mashner 1999: 249-256; Burley 1980; Carlson 1960:563; Grier 2000; Matson and Coupland 1995: 199-246; Mitchell 1990:344-346). Considering the source area of Garibaldi Obsidian and the spiritual qualities often associated with mountainous areas, it is likely that this material held some special quality different from that of regular raw stone materials. Visually the material is different than any other local lithic raw material. There are numerous stories and legends associated with large mountains such as Nch'Kay or Mt. Garibaldi and T'ak T'ak Mu'yin Tl'a In7iny'axe7en or the Black Tusk and Mt. Cayley, which offer corroborative evidence that high elevation areas are widely know as places inhabited by powerful beings such as the Thunderbird, where there is a powerful connection to the land and its resources. Considering the economic (trade in difficult to obtain resources), social (marriage and maintenance of kinship ties) and ideological (ethnographic accounts) values of Garibaldi Obsidian (Reimer 2001) it is not surprising that this material is so abundant during Marpole phase times.

During the post-Marpole or late period of the southern Northwest Coast, Garibaldi obsidian takes a sharp decline in spatial distribution and numerical occurrence (Figure 5:12). It is only found in very low quantities at sites located on the mainland of British Columbia, DkRs 6, DhRs 6 and DiRt 11. Broad changes in technology, including a shift from chipped to ground stone, the disappearance of microblades, the replacement of the atlatl by the bow and arrow, more sedentary populations with greater focus on lowland areas, and a later proto-contact population decline (Ames and Maschner 1999:87-112; Carlson 1983b, 1990, 1994:319-323; Fladmark 1982a:95-156; Mitchell 1990:340-358; Suttles 1990) may all be related factors .

It has been noted elsewhere on the southern Northwest Coast that during the Late Period the distribution of sites becomes wider, reflecting the use of specialized resource procurement sites

(Ames and Maschner 1999:144-146; Matson and Coupland 1995: 270; Mitchell 1990: 346-353), and there are few excavated sites and site components that date to the Late Period.

### Discussion of the Overall Distribution of Garibaldi Obsidian

The overall distribution of Garibaldi obsidian indicates a broad scale of patterned movement from the high elevation source area southwards. The material rarely moves northwards, and when it does, it occurs in the Squamish and Elaho river valleys, areas to which the local inhabitants had access. The limited movement of the material north and into the interior is likely due to a number of factors, 1) a different type of marriage/kinship network between coastal and interior Salish peoples, where exchange of lithic material was not important, and 2) the availability of other raw materials in the interior, e.g. many types of chert.

## Future Directions

While serving as a starting point the spatial and temporal distributions of Garibaldi obsidian offer a dynamic picture of high elevation land and resource use, it should also be noted that the occurrence of a single resource or material type from high elevation areas should not be the ultimate factor determining use of those areas. This is especially important when considering recent finds at high elevations of basketry dated to 2900 [cal 3000] BP in Olympic National Park, Washington State (Olympic National Park 2000) and the remains of Kwanday Dan Sinchi in northern British Columbia (Beattie et al. 2000:129-146; Champagne and Aishihik First Nations 1999). With more detailed analysis of faunal and floral remains archaeologists can begin to move beyond basic dietary analysis and being to investigate broad questions of pre-contact land and resource use, similar to approaches taken by Lyman (1995:369-424) and Rahemtulla (this volume) for faunal remains, and that of Lyons (2000) and Spurgeon (this volume) for floral remains. In order to develop such models it is essential that archaeologists formulate middle range theoretical frameworks as a bridge between low-level data and higher archaeological theory (cf. Binford 2000). With any approach that attempts to determine broad scale use of faunal and floral resources in the archaeological record a foundation of middle range frameworks is needed.

**Table 5:6. Fauna Species Utilized at High Elevations by The Squamish People.**

| Animal Species | Uses | Archaeological Visibility and Manifestation |
|---|---|---|
| Mountain Goat (*Oreamnos americanus*) | food, wool and or fur, horns, bone raw material | Medium; bones in high altitude sites, bones and horns in low land shell middens, fibers in wet site contexts |
| Deer (*Odocoileus sp.*) | food, bone raw material | High; bones in sites in various settings |
| Elk (*Cervus elaphus*) | food, antler, bone raw material | Medium; bones in sites in various settings |
| Marmot (*Marmota monax, Marmota caligata*) | food | Medium; bones in high altitude sites |
| Grouse/Ptarmigan (*Dendragapus obscurus, Lagopus lagopus*) | food | Medium; bones in sites in various settings |
| Skunk (*Mephitis mamphitis*) | medicine | Low; ? |
| Black Bear (*Ursus americanus*) | food, bone raw materials | High; bones in sites in various contexts |
| Grizzly Bear (*Ursus actos horribilis*) | food, bone raw materials | Medium; bones in sites in various contexts |
| Rodents, Moles (*rodenta sp.*), Porcupine (*Erethizon dorsatum nigrescens*), Snowshoe Hare (*Lepus americanus macfarlani*), Beaver (*Castor canadensis*), Muskrat (*Mustelidae sp.*), Racoon (*Procyon lotor*) | food | Medium; bones in sites in various contexts |
| Bald Eagle (*Haliaeetus leucocephalus*) | feathers | Low; feathers in shell middens or wet site contexts |
| Golden Eagle (*Aquila chrysaetos*) | feathers | Low; feathers in shell middens or wet site contexts |
| Snow Goose (*Chen caerulescens*) | food | Medium; bones in sites in various contexts |
| Canadian Goose (*Branta canadensis*) | food, bone raw materials | Medium; bones in sites in various contexts |

**Table 5:7. Plant Species Utilized at High Elevations by the Squamish People.**

| Plant | Material | Food | Medicine | Other | Archaeological Visibility |
|---|---|---|---|---|---|
| yellow cedar (*Chamaecyparis nootkaensis*) | * | | | * | High; CMTs, charred |
| silver fir (*Abeis amabilis*) | * | | * | * | High; CMTs, charred |
| grand fir (*Abies grandis*) | * | | * | | High; CMTs, charred |
| trembling aspen (*Populus tremuloides*) | | | * | | Medium; CMTs, charred |
| white pine (*Pinus monticola*) | * | | * | | High; CMTs, charred |
| sitka spruce (*Picea sitchensis*) | * | | * | | High; CMTs, charred |
| mountain alder (*Alnus sinuata*) | | | * | | Medium; CMTs, charred |
| mountain hemlock (*Tsuga mertensiana*) | * | | * | | High; CMTs, charred |
| old mans beard (*Alectoria sarmentosa*) | | | * | | Low; ? |
| swamp goose berry (*Ribis lacuture*) | | * | | | Medium; charred |
| Alaska blueberry (*Vaccinium alaskense*) | | * | | | High; Cultural Depressions, charred seed |
| bog cranberry (*Vacciniumoxycoccus*) | | * | | | Medium; charred |
| bunchberry (*Cornus canadensis*) | | * | | | Medium; charred |
| devils club (*Oplopanax horridum*) | | | * | | Medium; charred |
| Canadablueberry(*Vaccinum mytillordes*) | | * | | | High; Cultural Depressions, charred seed |
| bog blueberry (*Vacinnium uliginosum*) | | * | | | Medium; charred |
| stink currant (*Ribes bracteosum*) | | * | | | Medium; charred |
| red huckleberry (*Vaccinumparvifolium*) | | * | | | High; Cultural Depressions, charred seed |
| black twinberry (*Lonicera chilensis*) | | | * | | Medium; charred |
| thimbleberry (*Rubusparvilflorus*) | | * | | | Medium; charred |
| wild gooseberry (*Ribes divaricatum*) | | * | | | Medium; charred seed |
| red elderberry (*Sambucus racemosa*) | | * | | | High; Cultural Depressions, charred seed |
| salmon berry (*Rubus spectabilis*) | | * | | | Medium; charred seed |
| blue elderberry (*Rubus cerulea*) | | * | | | High; Cultural Depressions, charred seed |
| mountain bilberry (*Vaccinum membranaceum*) | | * | | | Med.Cultural Depressions, charred seed |
| oval leafed blueberry (*Vaccinum ovalifolium*) | | * | | | High; Cultural Depressions, charred seed |
| blueberries (*Vaccinum sp.*) | | * | | | High; Cultural Depressions, charred seed |
| Indian hellebore (*Veratum viride*) | | | * | | Low; ? |
| Indian thistle (*Cirsium brevistylum*) | | | | * | Medium; charred |
| deer fern (*Blechnum spicant*) | | | * | | Medium; charred |
| bracken fern (*Pteridium aqulinum*) | | * | | * | Medium; charred |
| lady fern (*Athyrium filix femina*) | * | | | | Medium; charred |
| cow parsnip (*Heraclem lanatum*) | | * | | | Low; ? |
| grasses (*Carx sp.*) | * | | | | Medium; charred |
| Indian hemp (*Apocynum cannabinum*) | * | | | | Medium; charred or water logged |
| yarrow (*Achillea millefolium*) | | | * | | Low; ? |
| fireweed (*Epilobium angustifolium*) | * | | | | High; fibers in blankets |
| puffball (*Lycoperdon sp.*) | | | | * | Low; ? |
| horsetail (*Equsetum arvense*) | | * | | | Low; ? |
| stinging nettle (*Uritca dioica*) | | * | | * | Low; ? |
| kinnikinnick (*Arctostaphylos uvaursi*) | | * | * | * | Medium; charred |
| Indian plant fungus (*Echinodontium tinctorium*) | | | | * | High; rock art |
| bluejoint reedgrass (*Calamagrostis canadensis*) | * | | | | Medium; charred |

### Middle Range Fauna Assemblage Predictions for High Elevation Sites

Along with lithic artifacts, common to almost all archaeological sites in British Columbia, faunal remains from large ungulates and smaller animal species available in the mountainous terrain of the south Coast Range are likely to be present. Depending on the location and degree of paleoenvironmental fluctuation, archaeological sites at all elevations may have indications of sub-alpine and alpine fauna. Table 5:6 lists the uses of animals hunted by Squamish people at high elevations, along with a prediction of their possible visibility in archaeological contexts. Mountain goats and other animals viewed as high status items may have some antiquity, since they are represented in art found in archaeological contexts dated ca. 3500 [cal 3800] BP (Carlson 1983b: 199-206, 1996:215-226, 1999:39-48; Carlson and Hobler 1993: 25-52). Further research (Reimer n.d.) has begun to examine the nature of high elevation faunal remains in archaeological contexts of the southern Northwest Coast, but to aid the potential interests of other researchers approaches similar to that in Table 5:6 may be taken.

### Middle Range Flora Assemblage Predictions for High Elevation Sites

Along with lithic artifacts and faunal remains, floral remains from the large number of plant species available throughout the mountainous terrain of the south Coast Range may be present in archaeological sites. Depending on the location and degree of paleoenvironmental fluctuation, archaeological sites at all elevations may have evidence of sub-alpine and alpine flora.. Many of the important food plants ripen in late Summer and Fall. People gathering these resources knew they were best at this time (Barnett 1955; Bouchard and Turner 1976; Drucker 1955: 53-55; Duff 1952:73-74; Hill-Tout 1978a: 27-56; Kennedy and Bouchard 1983:25-40; Matthews 1955; Suttles 1955:26-27; 1990; Turner 1975,1998). The timing of harvesting for many of these plant foods followed the mass harvesting, processing and storage of marine and terrestrial foods. The harvest of these plant foods coincided with other high altitude resource procurement pursuits (see above). Although further research (Reimer n.d.) has begun to examine the nature of high elevation floral remains in archaeological contexts, other researchers may wish to take approaches similar to that in Table 5:7.

## Conclusions

While still not fully developed mountain archaeology of the Northwest Coast is beginning to have influence on "low-land" or "valley" archaeology, and vice versa. No longer can archaeologists view of mountains as peripheral to the native cultures that inhabited them. From the ocean to the tops of mountains is part of the whole cultural landscape on which the Native inhabitants of the Northwest Coast are connected. Old concepts of mountains being barriers, places that were traveled through to get somewhere else, or as areas to seek refuge can no longer be accepted. The distribution of sites in many different mountainous regions (cf. Burtchard 1998; Frank 2000; Mack and McClure 1998; Mierendorf 1999, Reimer 2000) illustrates that many sites are not only located high above nearby villages, but also in many areas that were once viewed as remote and inhabitable. If one were to begin high elevation survey in the Coast Range it is suggested that they begin in large cirque/tarn basins, above or near village sites. In these locations one is likely to find residential base camps in the montane forest/alpine ecotone. From these locations it can be predicted where more distant short-term resource procurement camps are located. By conducting such research archaeologist along the Northwest Coast can begin to view the culture areas as not being some 2500km long and 200 m wide, but 2500km long and 300-400km wide.

The pre-contact inhabitants of the region had both a deep understanding of the landscape and a high level of physical fitness in order to access these areas, no matter where their location. A common claim of many modern mountaineers is having a "first summit" of a particular mountain, yet it is likely that individuals from First Nations communities of the area had reached that summit hundreds or even thousands of years earlier. This fact is evident from the numerous sites reported here and elsewhere.

With a strong connection to mountainous areas the pre-contact populations of the southern Northwest Coast viewed mountains as places to obtain resources but also as places to seek spiritual guidance and mark the boundaries of their respective territories. The numerous place names, stories, legends, and myths that took place in these locations are evidence of this type of activity. With this evidence of long term and dynamic connection to the mountains many more archaeologists need to consider the role those mountains played in the incredible archaeology of the Northwest Coast.