Squamish Nation Cognitive Landscapes

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By

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Abstract

Inspection of Squamish Nation oral history allows a more detailed and contextual explanation for characteristics of the distribution of archaeological sites, the nature of resource use and movement of lithic materials along the southern Northwest Coast. Squamish Nation place names of prominent landscape features help explain the presence or absence of archaeological sites, the role of marine and terrestrial resource use and settlement locations. The distribution of sites is linked to social status and gender, while lithic materials are interpreted as a marker of social cohesion and shared ideological belief. These cognitive structures are linked by specific materials within Squamish Nation territory and beyond.

Introduction Consideration of Landscapes

Slide #1

Archaeologists working on the Northwest Coast generally view the landscapes they are conducting their research in as either a neutral backdrop or as a force that affects cultural change and adaptation. But what are some of the perspectives of the people who have inhabited those landscapes for over the past 12,000 years? What some would view as hostile mountain peaks, fast running or hard to cross rivers and the wild plants and animals within them as individual geological and ecological structures, but First Nations peoples see manifestations of transformed people, the homes of other cultures, of those plants and animals, their collective ancestors and these places are monuments to a known past that is understood through the experience of those places within a known history and landscape (Watkins 2001).

Slide #2

In order to incorporate more cultural perceptions of landscapes on the Northwest Coast we must have a theoretical inkling and methodological flexibility to do so. Here I will present some concepts as discussed by Richard Bradley (2000) in the consideration of the Archaeology of Natural Places along with ideas presented by Tim Ingold's (2000) writings on Hunter Gathers perceptions of the environment, as related to lithic sources and how they are distributed across landscapes.

Slide #3

Geological Complexity and Cultural Knowledge and Use Of

The geological character of Squamish Nation territory is diverse. It is the result of it being within a geologically recently active volcanic belt (Kelman and Hickson 2002). Four major volcanoes, Mt. Garibaldi, the Black Tusk, Mt Fee and Mt, Cayley exist, along with numerous side vents,

domes and other associated geological structures are present. Three of the four volcanoes are extinct while the fourth is dormant (Mt. Garibaldi).

It is the results of numerous eruptions that took place at or near these volcanoes that have caused a richness of lithic source materials within Squamish Nation territory. This relationship of people in the past and some of these prominent landscape features that are also lithic sources is what I will explore further.

Knowledge and Experience of Lithic Sources in Squamish Nation Territory

Slide #4

Lhaxwm or Anvil Island

While mostly known as a good deer and duck hunting location, this island also served as a camping place while traveling through Howe Sound. The island was once a huge serpent (it resembles a coiled up snake) that was turned into the island, which is mostly steep and rocky, by the Xaays, or the Transformer brothers who traversed Squamish territory teaching people the right ways of doing things and they also set the world right. The high interior of the island is also the home a mythical being Ninc'ashen or "One Leg." He was generally considered harmless and sometimes even aided people during their spiritual fasting and training. The material found on the eastern side of the island, along a creek bed and is classified as an andesite, it is green in color, is very hard, but suitable to tool manufacture. This material is likely associated with the strength and power of the Xaays and the serpent they transformed into the island. The qualities of this material were likely linked with the hardness of the serpent's scales and the spiritually powerful location of the islands interior. Anvil Island andesite is found at a number of sites throughout Howe Sound that date to the past 4,000 years BP. Seldom if at all this material is found away form marine locations.

Borden Number	Site Name	Geographic Location	14C Age Range/Age Estimates	Frequency	Context
DhRt 6	Locarno Beach	Burrard Inlet	3280±70 to 1630±80 BP	3	Spring Camp
DiRt 11	Halkett Bay	Howe Sound	1190±120BP	1	Spring Camp
DiRu 10	Mannion Creek	Howe Sound	840±60 to 340±40BP	2	Spring Camp
DiRu 16	Checkwelhp	Howe Sound	990±60BP	1	Spring Camp
DiRu 33	Smaampt 1	Howe Sound	2500-1000BP	2	Sea Mammal Hunting
DiRu 56	Chaelkwench 2	Howe Sound	2500-1000BP	43	Sea Mammal Hunting
DiRu 60	Smaampt 2	Howe Sound	2500-1000BP	3	Sea Mammal Hunting
DjRt 5	Defence Islands	Howe Sound	870±90BP	8	Winter Village
DjRt 6	Potlatch Creek	Howe Sound	320±50BP	1	Fishing Camp
DkRs 6	Stamis	Squamish Valley	4000+-60 to 240+90 BP	109	Winter Village

Slide #5

Lexwlu'xwls (Mt. Currie People) or Watts Point

At this location some traveling Statlixm or Mt. Currie people were transformed to stone by the Transformers. While waiting for a canoe ride, they ate a starfish became sleepy and were resting when the Transformers came by, they mentioned that they did not want to travel anymore that day, so they were considered by Xaays to be lethargic they were changed to rock, and would stay at their resting place.

This is also the place that Hochtahl, a powerful warrior from the nearby village Stamis made some of his weapons that enabled him to defeat a sea serpent called the Sinuthki. This serpent is represented on a Canadian quarter form the year 2000. The material at Watts Point is a workable dacite that formed as a result of a lava flow that erupted underneath glacial ice. The quenching of water and ice caused the lava to cool at variable rates creating good to poor quality material. People in the past likely associated use of this material and location due to the power associated with the Transformers and the legendary warrior Hochtahl. Watts Point basalt is found at Stamis,

a village site at the head of Howe Sound, dated from 4000-320 years BP, and in numerous other sites dated to the same time period throughout Howe Sound.

Borden Number	Site Name	Geographic Location	14C Age Range/Age Estimates	Watts Point Basalt	Context
DhRt 6	Locarno Beach	Burrard Inlet	3280±70 to 1630±80 BP	1214	Spring Camp
DiRt 11	Halkett Bay	Burrard Inlet	1190±120BP	229	Spring Camp
DiRu 10	Mannion Creek	Howe Sound	840±60 to 340±40BP	200	Spring Camp
DiRu 15	Hopkins Landing	Howe Sound	2690±70BP	660	Winter Village
DiRu 16	Checkwelhp	Howe Sound	990±60BP	38	Spring Camp
DiRu 19	Plumper Cove	Howe Sound	2050±70BP	389	Winter Village
DiRu 33	Smaampt 1	Howe Sound	2500-1000BP	21	Sea Mammal Hunting
DiRu 58	Chaelkwench 1	Howe Sound	2500-1000BP	7	Sea Mammal Hunting
DiRu 56	Chaelkwench 2	Howe Sound	2500-1000BP	224	Sea Mammal Hunting
DiRu 60	Smaampt 2	Howe Sound	2500-1000BP	307	Sea Mammal Hunting
DjRt 5	Defence Islands	Howe Sound	870±90BP	82	Winter Village
DjRt 6	Potlatch Creek	Howe Sound	320±50BP	30	Fishing Camp
DkRs 6	Stamis	Squamish Valley	4000+-60 to 240±90 BP	13103	Winter Village
DkRt 2	Upenawa	Squamish Valley	730±80BP	48	Fishing Camp

Slide#6

Ma'mxwem (Meaning Mossy Face) or Ring Creek

Along the Mamquam River, just north of the town of Squamish the Ring Creek lava flow (dated to 12,000 BP) comes down form its source, the Opal Cone, a vent on the eastern slopes of Mt. Garibaldi. This material is fissured basalt and is found throughout Squamish Nation territory in a variety of contexts, middens, houses, lithic scatters etc. This material is not typically used for tool use but is associated with heating this material to be used for cooking food, steaming canoes and ceremonial purposes for training for spiritual power. The quality of this pumice like material is more based on its ability to hold heat and not fracture like other common rocks after long term use.

Borden Number	Site Name	Geographic Location	14C Age Range/Age Estimates	Ring Creek Basalt	Context
DhRt 6	Locarno Beach	Burrard Inlet	3280±70 to 1630±80 BP	6	Spring Camp
DiRt 11	Halkett Bay	Burrard Inlet	1190±120BP	9	Spring Camp
DiRu 10	Mannion Creek	Howe Sound	840±60 to 340±40BP	1	Spring Camp
DiRu 19	Plumper Cove	Howe Sound	2050±70BP	11	Winter Village
DiRu 56	Chaelkwench 2	Howe Sound	2500-1000BP	3	Sea Mammal Hunting
DiRu 60	Smaampt 2	Howe Sound	2500-1000BP	33	Sea Mammal Hunting
DjRt 6	Potlatch Creek	Howe Sound	320±50BP	2	Fishing Camp
DkRs 6	Stamis	Squamish Valley	4000+-60 to 240±90 BP	823	Winter Village
EaRu 5	Elaho Semanit Lam	Squamish Valley	1210±35 to 75±35BP	11	Rockshelter

Slide #7

Nch'kay (Dirty Place) or Mt. Garibaldi

Being the most important peak and landscape feature to the Squamish people, this volcano/mountain was the place to which people turned to during the great flood. It serves as a navigation point as well as a weather predictor, for example, it was said when clouds covered up the mountains face, rain or snow was on its way. After the flood people wandered without direction, until Thunderbird gave a man items the people needed to survive, a salmon trap, a chisel and eventually knowledge to find other people, among whom he found a wife, got married and lived happily ever after…

The people who retreated to this mountain are the people who draw their lineage to the Cheakamus village and reserve. People of this part of the territory still use the area around the mountain. Over the slopes of this mountain people hunted and gathered plant foods but one of the most important lithic materials was found here, obsidian.

Slide #8

Use of this material has been well documented (Reimer 2000, 2003, 2005), it appears in sites dated form 10,000 years ago up to proto-historic time periods across Squamish territory and

beyond. The source area for this material lays in the high elevation lateral and terminal moraines that surround the mountain. Since it has such strong association with the mountain that saved them and the material was of good quality people form the Cheakamus villages would have kept knowledge of the good locations to collect and work materials close to themselves. They could benefit from this association and use the material in trade for other materials or gain access to them.

Borden Number	**Site Name**	**Geographic Location**	**14C Age Range/Age Estimates**	**Nch'kay Obsidian**	**Context**
DhRt 6	Locarno Beach	Burrard Inlet	3280±70 to 1630 ±80 BP	35	Spring Camp
DhRr 6	Belcarra Park	Burrard Inlet	1620±90 BP to 1070±90 BP	5	Winter Village
DhRr 8	Cates Park	Burrard Inlet	2500-500 BP	5	Winter Village
DiRt 11	Halkett Bay	Burrard Inlet	1190±120BP	1	Spring Camp
DiRq 5	Coquitlam Lake	Burrard Inlet	10,000-5000BP	180	Summer Hunting Camp
DiRu 10	Mannion Creek	Howe Sound	840±60 to 340±40BP		Spring Camp
DiRu 15	Hopkins Landing	Howe Sound	2690±70BP	2	Winter Village
DiRu 19	Plumper Cove	Howe Sound	2050±70BP	3	Winter Village
DiRu 56	Chaelkwench 2	Howe Sound	2500-1000BP	12	Sea Mammal Hunting
DiRu 60	Smaampt 2	Howe Sound	2500-1000BP	3	Sea Mammal Hunting
DkRs 6	Stamis	Squamish Valley	4000+-60 to 240±90 BP	130	Winter Village
DkRr 1	Columnar Peak	Squamish Valley	2840±40BP	4218	Alpine Lithic Scatter
DkRr 2	Gargolyes	Squamish Valley	2500-1000BP	18	Alpine Lithic Scatter
DkRr 3	Lava Creek	Squamish Valley	2500-1000BP	23	Alpine Lithic Scatter
DkRr 4	Mamquam Ridge	Squamish Valley	7,500-3,500BP	50	Alpine Lithic Scatter
EaRt 5	Tricouni Meadows	Squamish Valley	7,500-3,500BP	1	Alpine Lithic Scatter
EaRu 5	Elaho Semanit Lam	Squamish Valley	1210±35 to 75±35BP	1	Rockshelter
DhRs 1	Marpole	Fraser Valley Sites	2900±170 to 1950±90 BP	1468	Winter Village
DgRr 2	St Mungo	Fraser Valley Sites	4375±105 to 3000±60 BP	6	Winter Village
DhRn 14	Stave Lake 1	Fraser Valley Sites	5500-3500BP	1	Hunting/Fishing Camp
DhRn 17	Stave Lake 2	Fraser Valley Sites	5500-3500BP	6	Hunting/Fishing Camp
DhRq 22	Park Farm	Fraser Valley Sites	4,170±120 to 300±50 BP	107	Winter Village
DhRq 21	Pitt Lake	Fraser Valley	4390±90 to 220±80 BP	1	Winter Village

		Sites			
DiRn 1	Stave Lake 3	Fraser Valley Sites	5500-3500BP	1	Hunting/Fishing Camp
DiRn 2	Stave Lake 4	Fraser Valley Sites	5500-3500BP	1	Hunting/Fishing Camp
DhRo 17	Stave Lake 5	Fraser Valley Sites	5500-3500BP	1	Hunting/Fishing Camp
DiRo 26	Stave Lake 6	Fraser Valley Sites	2500-1500BP	1	Hunting/Fishing Camp
DhRw 4	False Narrows	Gulf and Vancouver Islands	1710±90 BP	8	Winter Village
DgRx 5	Duke Point	Gulf and Vancouver Islands	4130±120 to 680 ±90BP	107	Midden/Village
DhRx 16	Departure Bay	Gulf and Vancouver Islands	2130±30 to 1330 ±80 BP	5	Midden/Village
DgRx 36	Duke Point	Gulf and Vancouver Islands	2580±60 BP	7	Midden/Village
DkRu 8	Helen Point	Gulf and Vancouver Islands	4000-3000BP	2	Midden/Village
DgRv 3	Dioniso Point	Gulf and Vancouver Islands	1770±70 to 1570 ±70 BP	31	Summer Village
DgRw 199	Gabriola Island 1	Gulf and Vancouver Islands	2460±60 to 1720 ±60 BP	5	Burials
DgRw 204	Gabriola Island 2	Gulf and Vancouver Islands	2320±70 to 2150 ±70 BP	1	Burials

Slide #9

T'ak't'ak mu'y'in tl'a in7iny'a'xe7en (Landing Place of the Thunderbird) orBlack Tusk

Another very important mountain in Squamish territory, this is known as one of the Landing Places of the Thunderbird, I will discuss another later. The role of this mountain also serves as a navigation point but there are no archaeological sites associated with quarrying of lithic materials (there is suitable material around its slopes) or hunting activities. Young men did go up to the slopes around this mountain, but if they got to close and had not spiritually trained enough thunder and lightening would strike all around them, until they left the area.

The only site in proximity to this mountain is DlRs 3, a blue berry processing site. Women form the Cheakamus villages would have traversed up slope to the meadows that contain vast amounts of sub alpine blue berries. These berries would be mass harvested, mashed into round cakes and dried. Drying took place over a slow burning fire in a narrow but long trench, over which a rack and mats would be placed. Berry picking fields were owner property and it was a woman's job to pick and dry them.

Slide #10

Skawshn (Foot Is Descending) or High Falls Creek

This area is at the confluence of High Falls Creek and the Squamish River, it is the location of a very old Squamish village that was well known to be a good place to obtain strong cedar wood, for manufacturing river and ocean going canoes. The bed of High Falls Creek contains a immense abundance of good quality basalt, that is hard yet workable, that originates from mid to high elevation lava flows along the Squamish Cheakamus mountain divide.

The village at Skawshn is also close to a burial ground and it is this association with the ancestors, and the presence of large, good quality cedar (who are transformed ancestors) and burials that places importance of this lithic material in this part of Squamish territory. Furthermore canoe manufacture (wood steaming and shaping) would also have had to include material form the Ring Creek source as well.

Slide #11

Sts'ak'ay's (Hitting Rocks Together) or Callaghan Mountain, Mt Fee and Mt. Cayley

Along the high elevation mountainous divide that separates the Squamish and Cheakamus River drainages are a number of peaks associated with ancient volcanic activity and these mountains are considered another landing place of the Thunderbird. A number of small outcrops exist on

the slopes of Callaghan Mountain, Mount Fee and Mount Cayley. The material found in these contexts is fine obsidian like material, or glassy rhyodacite. This material is found in association with mountain goat hunting sites (EaRt 1-5) and the Elaho rockshelter (EaRu 5) collectively dated form approximately 8,000-100 years BP. This material is only found in northern parts of Squamish Nation territory. Again the association of this material with the Thunderbird whose eyes shot lightening and flapping wings caused thunder led one Squamish elder telling me where that lightning hit the earth, this material was made and hence its important value.

Borden Number	Site Name	Geographic Location	14C Age Range/Age Estimates	Cayley Glassey Rhodacite	Context
EaRt 1	Mt Fee 1	Squamish Valley	7,500-3,500BP	7	Alpine Lithic Scatter
EaRt 2	Mt Fee 2	Squamish Valley	7,500-3,500BP	44	Alpine Lithic Scatter
EaRt 3	Mt Fee 3	Squamish Valley	8,500-4,500 BP	4	Alpine Lithic Scatter
EaRt 4	Mt Fee 4	Squamish Valley	7,500-3,500BP	2	Alpine Lithic Scatter
EaRt 5	Tricouni Meadows	Squamish Valley	7,500-3,500BP	19	Alpine Lithic Scatter
EaRu 5	Elaho Semanit	Squamish Valley	1210±35 to 75±35BP	15	Rockshelter

Discussion

Slide #12

In order to gain understanding of the use and distribution of lithic materials on the Northwest Coast we need to focus more on where those materials came from, the reasons for their use that go beyond sheer economic rationalizations. We need to examine the social and ideological aspects of past cultures and how the maybe manifested archaeologically. By understanding the relationships between geological structures in the territories of other Northwest Coast groups and knowledge of how they define their landscapes and places within we can differentiate what driving forces caused people to make the choices they did, especially when selecting lithic materials for use. This calls for a need not only to understand cultural aspects of these materials but also the need to source materials (be it by X-ray Fluorescence, Neutron Activation, Scanning Electron Microscopy) to be able to link lithic sources to sites and contexts where they were used.

It is likely that individual specialists from villages who had access to lithic sources were responsible for use and movement of materials through their own activities and the immediate kinship group. The nature and type of materials can also inform us of gendered activities within certain sites, be they in plant processing sites, inside houses and throughout villages/middens.

Conclusions

Slide#13

Clearly there is a link between the ways people define their landscape, with certain areas being associated with important events and mythical beings and hence how those places are used. By knowing where these places are and use of the materials they offered to people would have wanted to possess a "Piece of that Place" due to those embedded cultural meanings. This gives a purposeful agency to why people used those materials that is moves our understanding of them beyond purely economic qualities (cf. Bradley 2000). These "Pieces of Places" likely served as a strong social and ideological link in and among families, villages and different Coast Salish groups.

Within Squamish Nation territory these are the known and identified lithic sources areas that will ultimately be characterized by Neutron Activation Analysis at McMaster University. In doing this I will be able to demonstrate with more certainty the use and distributions of those materials and the roles they play with Squamish Nation territory and beyond. As an exploratory avenue I have plotted the known distribution of Nch'kay/Garibaldi obsidian along with marriage kinship networks as investigated by Dorothy Kennedy (2000). The distribution of which Squamish people interacted with the most shows a very close correlation with the use and movement of this obsidian. Additional sourcing of other materials discussed here will be underway shortly and

results will be presented in relation to this paper and ongoing research within Squamish Nation territory.

In future analysis by myself and I hope other researchers in the area we can begin to examine the dynamic nature of the material we most often find in our sites, lithics, to that of social networks that were formed and tied together by a common ideology that helped define identity and a common history the acknowledges ancestry through generations of occupation of landscapes.

Slide#14

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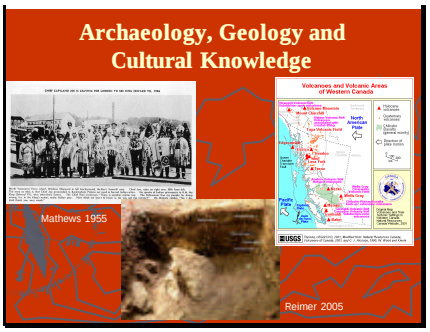

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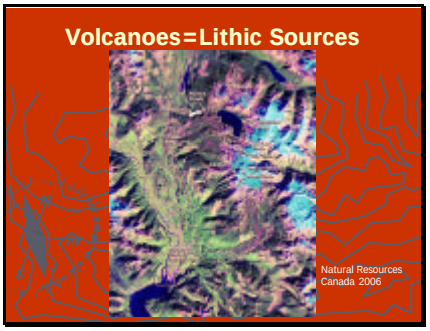

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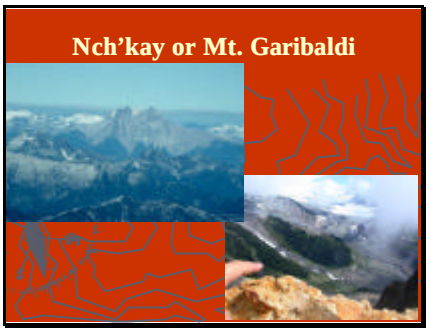

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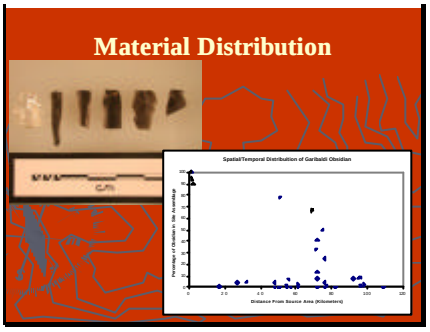

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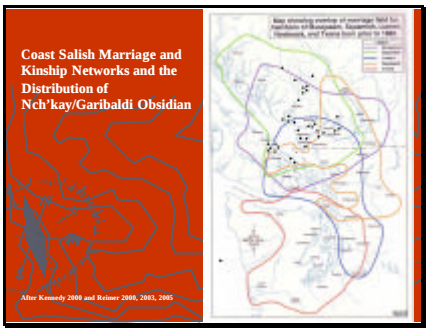

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