CHAPTER 15

The Early and Middle Pre-Contact Periods at Fort Langley National Historic Site (DhRp-36)

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Introduction and Background
Fort Langley National Historic Site is located on a sloping, elevated post-glacial landform on the south side of the Fraser River that was chosen as the second location for the Hudson’s Bay Company (HBC) in 1839 (Figure 1). The original 1827-1839 Fort Langley I (DhRp-37) was located several kilometers downstream, but was determined to be unsatisfactory because of its poor defensive position and ship mooring difficulties. The entire fort and contents were subsequently moved upstream where ships could anchor and the fort complex be more easily defended, if necessary, from the height of land.

The 1839/40-1888 Fort Langley II (DhRp-36) experienced a series of palisaded expansions until shortly after the 1858 Gold Rush. The post experienced a decline in importance until it was finally sold in 1888 and buildings were removed (the palisades had long since rotted) except for the Sales Shop dating from 1840. Many areas of the previous fort were subjected to ploughing ‘bees’, the results of which were identified during archaeological excavations as linear marks that penetrated into pre-contact deposits.

Excavations conducted between 1988 and 1996, under the auspices of Parks Canada, the Kwantlen Nation and a consortium of community colleges (Langara, Douglas, Capilano, Fraser Valley and Kwantlen) focused originally on recording and recovery of data related to the historic HBC fort. Early in the first excavation season it was noted that previous archaeological endeavours had stopped at the interface between historical and pre-contact cultural deposits.

Although the main focus of later excavations continued to emphasize the HBC components, increasing emphasis was placed on examination of the pre-contact deposits, now known as DhRp-96. According to the Archaeology Branch, the dual numbering of historic and pre-contact components ensures capture of both for site database searches.

Recovery of diagnostic artifacts including, but not limited to; projectile points, cobble tools, scrapers, debitage and microblades in addition to pit and hearth features, indicated significant pre-contact use of the landform. In addition, by the end of the 1996 field season, radiometric assays consisting of charcoal (there was no pre-contact bone preservation) determined occupations dating from ca. 200 to 8400 uncalibrated radiocarbon years BP (ca. 225 to 9500 calibrated yrs BP). Most radiocarbon assays are reported here as uncalibrated estimates, for calibrated ranges see Table 1.

Figure 1: Fort Langley I (1827-1839) and II (1839-1888) locations. Map courtesy of Parks Canada.

Since our collective work at Fort Langley National Historic Site ended in 1996 there have been significant discoveries of archaeological resources in adjacent locales such as Pitt Polder, Maple Ridge and montane lake...
catchment areas nearby. As a result, the relatively poorly known period pre-dating 3500 BP has recently been further enhanced. This paper presents some results of the college field school investigations prior to these recent discoveries. Although much of the data presented here can be found in Parks Canada internal publications, these are not widely available and form a unique subset of grey literature. An initial report of investigations can be found in Porter and Copp (1993).

### Table 1. DhRp-7/96 Radiometric Age Estimates*

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* [www.calib.qub.ac.uk/calib/calib.html]  
* (Calib v.6 INTCAL09)* @ 1 standard deviation

### Lower Fraser Valley Culture History

Evidence of early Palaeoindian colonization of the Fraser Valley at >10,000 rc yrs BP (11,500 cal rc yrs BP) has been discovered as a result of site surveys and excavations, mostly in montane lake areas north of the Fraser River (e.g., Hatzie, Alouette, Harrison, Stave, Jones and Pitt Lakes) as well as on associated riverbanks and terraces of the Fraser River (Berkey 2011; Eldridge and McLaren 1998; Gray and McLaren 2011; McLaren 2000; McLaren and Owen 2000; McLaren and Steffen 2008; McLaren and Storey 2010; Wilson and Clark 2001; Wright and Williams 1982).

### Proto-Western Tradition (> 10,500 BP)

Generally referred to as the Proto-Western Tradition at >10,500 rc yrs BP, but also referred to as the Cobble Tool Tradition (Carlson 1990, Carlson and Dalla Bona 1996), its defining material culture traits overlap with the following Old Cordilleran Tradition. Diagnostic tool types in include various cobble tools, spalls and debitage as well as leaf-shaped (foliate) and slightly contracting stemmed projectile points found at Stave and Hayward Reservoir sites dating as early as 10,370 rc yrs BP, possibly earlier (McLaren and Story 2010; Chapter 18).

Recent finds of stemmed and ground Plano-like projectile points may be eventually included in this Tradition, or be interpreted as evidence of Carlson’s (1990) Stemmed Point Tradition in the area. To date, no fluted points (Fluted Point Tradition) have been found in the Fraser Valley, although specimens have been located in northern Washington State and the San Juan Islands (Fedje et al. 2011).

### Old Cordilleran Tradition (10,500 to 5,500 BP)

Originally defined by Butler (1960, 1965) for the Columbia Plateau and since extended to Southern British Columbia, the Old Cordilleran Tradition until recently was best typified by the lower components at the Glenrose Cannery site (Matson 1996) dating from 8000 to 5500 BP, the Milliken site in the Fraser Canyon (Mitchell and Pokotylo 1996) at 9000 BP, Bear Cove on northern Vancouver Island (Carlson 1979), Fort Langley National Historic Site (Porter and Copp 1993), various Olcott Phase sites in Coastal and southern Coastal Range sites in Washington State (Chatters et al. 2012), and recent finds within the Stave and Hayward Reservoirs of the Fraser Valley (McLaren and Storey 2010).

The Old Cordilleran Tradition is characterized primarily by components dominated by flaked stone tools, including those of a simple cobble reduction sequence (Haley 1987) some ground milling stones or edge-ground cobbles mostly found in Interior sites, and rare bone or antler tools (e.g., wedges and harpoons at Glenrose). A general absence of acid-ameliorating marine or freshwater shellfish valves in most site components most likely explains poor organic preservation in most components.

The most diagnostic lithic tools are formed bifacial knives and projectile points, being mainly of the leaf-shaped or bipoined types. Some foliate bifaces exhibit serrated blade margins, which appear in Coastal, Riverine and Interior sites in some regions.

Recent research in Fraser Valley montane areas has added stemmed projectile points to the Coastal Old Cordilleran and Interior Early Nesikep trait lists, both contracting and parallel stemmed varieties (Berkey 2011; Eldridge and McLaren 1998; Gray and McLaren 2011; McLaren 2000; McLaren and Owen 2000; McLaren and Steffen 2008; McLaren and Storey 2010; Wilson and Clark 2001; Wright and Williams 1982). Parallel stemmed points resemble some Plano or Western Stemmed Point types and are characterized by basal stem grinding and flaking patterns that are not generally as finely controlled (e.g., parallel flake removal) as more Eastern stemmed point types. This could be a function of tool stone properties, as many Old
Cordilleran projectile points were manufactured from less vitreous dacites, felsites and rhyolites rather than more vitreous cryptocrystalline silicates or obsidian observed in Interior locales.

Microblades and microcores are present in some site assemblages, but not all. The Old Cordilleran components at Fort Langley are no exception with microblades, but no microcores, excavated in Charles Culture (5500 to 3500 BP) components there.

**Charles Culture Tradition (5500 to 3500 BP)**

The Charles Culture Tradition is generally viewed as an evolutionary outgrowth from the preceding Old Cordilleran Tradition (Borden 1975; Carlson 1990; Pratt 1992; Porter and Copp 1993; Prentiss and Kuijt 2012; among others). This cultural Tradition is indicative of a regional (Fraser Canyon, Fraser Valley and Gulf Islands) pattern of an increased reliance on marine subsistence while maintaining a major emphasis on terrestrial resources, increasing reliance on ground stone and organic material culture although not to the extent characterized by succeeding phases (Locarno Beach, Marpole and Gulf of Georgia), diversification of some knife and projectile point types and sub-types while maintaining foliate and contracting stemmed variants, increasing use of more diverse cryptocrystalline silicate tool stone sources, increasing evidence of art (both organic and inorganic), as well as a tendency towards semi-sedentary site occupations.

**Fort Langley Surficial Geology, History and Site Stratigraphy**

**Surficial Geology**

Fort Langley is situated on a periglacial landform consisting of underlying Vashon Stade glacial deposits overlain by Fort Langley Formation glacio-marine deposits. These are surmounted in turn by Sumas Stade deltaic sediments (Locher 2006; Mackie et al. 2011); the latter modified by over 10,000 years of natural and anthropogenic activities. The knoll rises gently from southwest to northeast, exhibiting over 15 meters of precipitous bluffs on the current eastern and northern faces that were likely less steep in the distant past before 19th and 20th Century land-altering activities that included construction of a road and railway and sediment removal. Parks Canada and college excavations focused on the eastern end of the knoll that was the site of the palisaded fort and associated activity areas.

During the early Holocene the Fraser River north of the knoll was reduced to a smaller riverbed as the main flow was south from the Sumas area to the sea. Figure 1 shows the fossil riverbed currently occupied by an under-fit stream and marshlands that encircled the knoll in post-glacial times. Proximity to riverine resources and strategic vistas from the knoll most likely explains the pre-contact use of this landform and those of the later HBCo occupations.

**HBC Site Fort Langley II (AD 1839/40 to 1888)**

The immediate fort property consists of two terraces rising from the Fraser River to the north, reaching a maximum elevation of about 15 meters above current river levels on the second terrace. The HBCo utilized the terraces to emphasize 19th Century social hierarchies. The lower terrace (closest to the river) contained the men’s houses aligned along the western palisade. Lowest on the terrace was the Kanaka’s (Hawaiian) labourers’ house, followed by the Aboriginal and Metis men’s house before the break-in-slope to the second, or upper, terrace.

The first structure south of the break-in-slope was the officers’ or senior clerks’ house. The extreme southern end of the second terrace held the Chief Factor’s house, as well as the cook house where meals were prepared meals for company employees. This was a necessary precaution since all wooden structures were combustible, the Company learned to their dismay in 1840 when sparks from the Blacksmith Shop burnt the newly built fort to the ground.

The northern end of the fort held the original sales shop (built into the palisade), and the Eastern side contained the blacksmith and storage shops prior to the break-in-slope. Opposite the officers’ house was the Gold Rush era sales shop. Complementing these structures were two Bastions, one on the Northeast and one near the Southeast corners of the palisades.

An elevated walkway was present along the lower terrace western palisade, as determined by field school excavations, and probably continued along the North palisade wall, but this cannot be determined as over 10 meters of the Northern portion of the fort was removed by railway and road construction.

**Stratigraphy**

There is a significant difference between the lower and upper terraces. The lower terrace has a thin (< 20 cm) deposit of dark organic historic sediments underlain by thin deposits of reddish-brown sandy loams with cobbles and pebbles containing some pre-contact artifacts and features. Underlying this is a layer of unknown depth comprised of grey coarse to fine sands, the interface between which would have been the original land surface for available occupation. The lower terrace reflected only sporadic use during the pre-contact Period, evidenced by isolated artifacts, cobbles tools and related debitage. It was more heavily used during historical fort-related activities, including the original palisaded 1839-1840 structures of Fort Langley II that burnt to the ground early in 1840. The fort was rebuilt in 1840, but was pushed uphill to the break-in-slope of the second terrace.
The majority of intact pre-contact cultural deposits are located on the upper terrace, although these have been impacted by 19th and 20th Century land-alterations (Figure 3). The upper terrace exhibits a living layer of sod, some 20th Century strata associated with site reconstruction (structures, the palisade and roads) as well as dark organic sediment containing mixed HBCo structural features and pre-contact artifacts. The interface to the main pre-contact deposits in reddish-brown to orange sandy-loams with cobble and pebbles showed evidence of ploughing into otherwise undisturbed pre-contact period sediments. Underlying cultural deposit this was the interface with uplifted glacio-marine and fluvial coarse-to-fine sands that would have been the original occupation surface.

Pre-contact cultural deposits mainly derive from the sandy non-cultural sands of the lower terrace at less than 50 cm BS (below surface) and differed from depths on the upper terrace (depending upon 19th and 20th Century alterations) extending over 200 cm BS.

**Figure 2:** Structure 0, main location of Early and Middle Period Components. Courtesy of Parks Canada.

**Figure 3:** Stratigraphic Profile, revealed by upper terrace excavations. Stratum VI: 20th Century fill (sand lens and two additional strata just below surface; V: HBCo 19th Century dark sediments; IV: HBCo 19th Century fence line trench; III: 19th Century fence trench extending into sands; II: Pre-contact period red-brown cobble/pebble sediments; I: Glacio-marine sterile sands.
The Early and Middle Pre-Contact Periods at Fort Langley National Historic Site (DhRp-36) | 129

Results of the 1988-1996 Excavations

The focus of this chapter pertains to a particular excavation area, not the entire site complex. This was the area located from the break-in-slope from the lower to upper terraces on the eastern side of the site associated with the Gold Rush sales shop (Structure O) (Figure 2). The original research goal was to locate physical evidence prior to building reconstruction. An 1862 Royal Engineers’ map was used to determine excavation units and location of degraded wooden sill features within 50 cm of the 1862 coordinates allowed for the eventual reconstruction project to proceed.

While conducting excavations to locate the original footprint of Structure O as well as the pre-1862 palisade, a number of pre-contact artifacts and features were uncovered. These ranged from the terminal pre-contact period (150 to 300 BP) to the Old Cordilleran component of over 8000 BP (Figure 4).

Pre-contact features encountered under, or near, the Structure O research area consisted almost entirely of small to medium (20 to 100 cm diameter) shallow, basin-shaped hearths. Fire-altered rock, burnt sediments and artifacts found in association with these hearths.

Radiometric Assays

Acidic soils precluded preservation of organic artifacts or features other than in the 19th Century historic sediments. As a result, charcoal samples found in situ in hearth features from both terraces were submitted for analysis. Table 1 summarizes the 22 radiometric assays submitted, most from the upper terrace, of which 10 are associated primarily with the pre-3500 BP cultural features of Structure O (i.e., Charles Culture and Old Cordilleran Traditions).

The four oldest assays derive from two small, Old Cordilleran hearth features that were found at the interface between coarse to fine grey sands of the non-cultural glacio-marine transgression sediments and anthropogenically-modified sediments of Sumas till. As indicated previously, this interface represents the original landform that would have been available for occupation sometime after 11,000/10,000 BP. Two charcoal samples from each feature (#220 and #192) were submitted, with fairly good results at both the one and two sigma ranges that met expectations of an early occupation date for the upper terrace, in this case, greater than 6000 BP.
Four charcoal assays ranging from 6650 to 8400 BP as well as diagnostically early Old Cordilleran/Plano (Western Stemmed Point) projectile points and cobbles tools are strong indicators that Fort Langley knoll attracted some of the earliest human use of the lower Fraser River, likely because it was once a vegetated island with good vantage of surrounding areas and, as also deduced by HBCo staff, an easily defended position.

**Artifacts**

The artifact assemblage associated with Charles and Old Cordilleran tradition components is not particularly rich in terms of stylistic or typological variation, but it resembles similarly dated components in the Pacific Northwest, especially areas associated with the Coasts and major riverine valleys of Southern British Columbia and Washington State. Temporally diagnostic artifacts from Fort Langley are shown in Figures 5 to 7.

**Proto-Western Tradition** (10,000 to >11,500 BP) or Palaeoindian artifacts of the Western Fluted Tradition (Clovis) are not known in the immediate subject area, although a few have been found in north-central and northwestern Washington State. Stemmed Point Tradition (Carlson 1990; Carlson and Dalla Bona 1996; Carlson and Magne 2008) projectile point types associated with radiocarbon assays older than 10,000 BP have been found nearby, particularly in the Stave Lake drainage (McLaren and Steffen 2008) (Chapter 18). A single possible example of the Proto-Western Tradition was found at Fort Langley National Historic Site in the Structure N excavations (Figure 5c).

**Old Cordilleran Tradition** (5500 to 10,500 BP) artifacts are well represented. These include cobbles tools and cobbles spalls, as well as debitage produced by simple cobbles reduction (Haley 1987) that are not unique to Old Cordilleran sites as they are found throughout local cultural history sequences, but cobbles tools are part of Butler’s (1960, 1965) original definition of the Tradition and this hasn’t changed over time. Milling stones (see Chang, this volume) are rarely found but known by 6000 BP, and edge-ground cobbles tend not to be part of the artifact inventory in Southern Coastal British Columbia, unlike Columbia Plateau sites (Chatters et al. 2012).

Old Cordilleran sites contain characteristic leaf-shaped and slightly stemmed knives and projectile points, with some regional variation (e.g., higher frequencies of serrated blade margins in some areas, particularly in Washington State and Plateaus). A common trait observed on many older artifacts of this Tradition is for them to be heavily patinated, especially on faces subjected to groundwater influences. This is the case with the Fort Langley projectile points, formed and unformed tools as well as cobbles tools and spalls, but may reflect local geological processes rather than age per se.

**Figure 5:** Old Cordilleran Tradition bifacial projectile points/knives. Item (c) may be a Proto-Western Tradition biface. Image courtesy of Parks Canada.

Unlike other Old Cordilleran components elsewhere, Fort Langley artifacts are comprised almost entirely of cobbles tools, knives, projectile points and cobbles reduction debitage. This suggests that occupation(s) were particularly ephemeral and likely the result of opportunistic, coupled with logistical, foraging over short periods (see also Grabert 1979 for comparative Olcott Tradition examples).

**Figure 6:** Old Cordilleran (a-c) and Charles Culture (d-f) bifacial points/knives. Image courtesy of Parks Canada.

Only two features (#192 and #220), both small hearths near the break-in-slope at Structure N, represent non-portable cultural materials of the Old Cordilleran. Associated fire-altered rock, artifacts, and the small basin-shaped configurations of hearths support a short-term occupation of the upper terrace during this time. The presence of larger hearth features, particularly during the Late pre-contact period, suggests that the earliest inhabitants of the knoll may have been drawn to this locale to set up field camps, perhaps due to its advantageous vantage traits as the knoll commands an almost 270° view scape (except to the south). The small basin-shaped hearths contained very small amounts of fire-altered rock, suggesting short-term
cooking and/or evening warmth sufficed for very few individuals per hearth.

The majority of Old Cordilleran artifacts were located within the interface between the reddish-brown later cultural deposits and underlying culturally sterile sands. Recently, Chatters et al. (2012:57) analyses suggests that Old Cordilleran Tradition people can be sufficiently distinguished from earlier cultures and biophysical patterns to suggest ethnic affiliation (Penutian) shifts from earlier Palaeoamerican populations typified by the Kennewick and Buhl human skeletal remains ca. 9000 to 9500 BP. Although controversial, their research indicates this trend within the Columbia Plateau and Great Basin only.

**Charles Culture Tradition** (3500 to 5500 BP) occupations are better represented at Fort Langley, as are later Locarno Beach, Marpole and Gulf of Georgia Phase components. This Tradition is an amalgamation of earlier defined cultural phases from the Gulf Islands upriver to the Fraser Canyon (St. Mungo, Mayne and Eayem phases) as defined by Borden (1975) and refined by later researchers (Carlson 1990, Carlson and Dalla Bona 1996, Carlson and Magne 2008, Matson and Coupland 1995, Pratt 1992, Haley 1987, and others). Matson and Coupland (1995) view the Charles Culture Tradition as a direct evolutionary outgrowth from the earlier Old Cordilleran Tradition, given continuity and persistence of a distinct set of artifact types and, better preservation of organic artifacts.

![Figure 7. Items (a-c): Old Cordilleran/Charles Tradition foliate bifaces; (d-f): incomplete foliate biface bases modified into end-scrapers; (10g): microblade fragment.](image)

In terms of lithic trends, the Fraser Valley Charles Culture Tradition demonstrates an increase in formal and stylistic variation with respect to tool stone use, but with continued use of leaf-shaped and contracting stemmed knife and point types. Tool stones tend to include more vitreous dacies as well as at least one specimen of what appears to be Garibaldi glassy rhyodacite as well as siltstone variants (meta-sediments) (Figure 6).

Of interest is that many leaf-shaped and contracting stemmed points and knives are also characteristic of Old Cordilleran and Charles Culture Tradition temporal ranges in the mid-Fraser Canyon and southern Interior Plateau culture sequences. Although most Interior-Valley-Coastal similarities occur in later components at the Fort Langley site, the presence of at least one biface that resembles Lochnore Phase (6500/5000 to 3500 BP) most commonly found from the Lillooet, Kamloops, Thompson-Shuswap, and North Okanagan areas (Rousseau 2008; Prentice and Kuijt 2012), as well as southwards in the Similkameen Valley (Copp 2006), may be indicative of long-distance cultural connections resulting from trade, travel, inter-marriage, exchange and other methods of diffusion.

Although diagnostic Lochnore Phase artifacts include side-notched projectile points, it isn’t clear if the specimen excavated at the Fort Langley site falls within the range of variation of this type. Rousseau (2015: pers. comm.) suggests that Lochnore side-notched point types may have originated in the Fraser Valley and were introduced into the Interior by migrations of coastal-riverine adapted peoples.

The technological tradition of simple, direct, freehand, hard-hammer (Rousseau 2015 pers. comm.) and/or bipolar cobble reduction (Haley 1987) continues to be well represented in Charles Culture components at the Fort Langley site. A relative lack of non-cobble flake debitage in both Charles Culture and Old Cordilleran components is readily apparent. For whatever reasons, possibly simple expediency, occupants of the knoll between ca. 3500 and 8400 rc yrs BP simply preferred to use the most easily acquired toolstone (river cobbles) and reduced them to produced formed tools (choppers, scraper-planes), and large, usable side and/or end-struck cortical spall and other usable flakes.

Microblades attributable to the middle or early periods, in the absence of microcores, may not represent a true microblade technology. As Haley (1987) was able to determine through experimental replication of cobble tools, microblade-like flakes may be unintentional by-products of the simple cobble core reduction process, although microblades and microcores occur in later cultural deposits here.

**Summary and Recommendations for Future Research**

Joint college field schools conducted at Fort Langley National Historic Site between 1988 and 1996 produced evidence of a local culture history sequence ranging from the late Protohistoric (ca 250 BP) back to early Old Cordilleran (ca 8400 BP) and possibly Proto-Western (ca > 10,000 BP) Tradition times.

The focus of this chapter has been the early to middle periods dating ca 3500 to 8400 BP (4000 to 9500 cal rc yrs
BP), specifically Charles Culture and Old Cordilleran Traditions. Diagnostic artifacts, features and stratigraphic relationships indicate occupations were sporadic and largely ephemeral. Evidence for longer-term occupation events and more specific land use on site tends to be reflected in later cultural components (Locarno Beach, Marpole and Gulf of Georgia Phases).

The field school excavations were originally oriented towards the recovery and recording of the historic fur trade gallery and building locations in order to facilitate reconstruction of this national historic site in order to enhance visitors’ understanding and appreciation of the HBCo contribution to early British Columbia history. Fort Langley was the location where James Douglas was sworn in as the first governor of the province on-site, in the Chief Factor’s house, a building which by the time of the BC Centennial had long since been dismantled.

Although initially restricted to excavations of the historic cultural deposits, it was soon apparent that earlier, significant pre-contact period occupations underlay the historic fort depositions. Parks Canada graciously re-thought the original research design to incorporate excavations of the pre-contact occupations. These indicated a fairly continuous use of the knoll upon with the fort was constructed from Late Period to early, probable Proto-Western Tradition times (ca. 250 to 10,000 years BP).

Eight field seasons of excavations by 20 to 40 students, instructors, field assistants and Parks Canada staff have resulted in a large amount of data relating to historic fur trade and at least 9500 years of pre-contact occupations and use of the prominent knoll upon which the fort was situated. There are likely dozens of Honours’ papers, Master’s and Doctoral dissertation topics awaiting analysis ranging from lithic reduction strategies employed to produce cobbles and by-products and stone tool use-wear to cite only two examples; examination of the historic and pre-contact features to evaluate diachronic land-use patterns and how they may differ from the lower to upper terraces; as well as limited excavations to recover lithic tools for residue analyses.