Chapter 16

An Early Cordilleran Assemblage from the Nechako-Fraser Basin

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Introduction

The recent excavations at FlRq–013 produced unexpected results for an archaeological site in an urban setting on the central Interior Plateau of British Columbia. Prior to the identification of FlRq–013 and associated archaeological sites FlRq–009, FlRq–010, FlRq–011, and FlRq–012, it was believed that urban development and river erosion had destroyed most evidence of prehistoric occupation within the city of Prince George. To date, the majority of sites found on the north-central Interior Plateau are typically shallow, poorly stratified, and produce little diagnostic material. Few ^{14}C dates exist for sites within this region, and most have been dated through comparative tool morphology.

FlRq–013 is located 3.9 km southwest of the current confluence of the Fraser River and Nechako River. It is situated at the neck of a loop along a large palaeo-channel of the Nechako River. The site was originally recorded during a CRM project within an intact stand of mature forest near the off-ramp of the Simon Fraser Bridge on Highway 97. FlRq–013 covers an area of 11, 167 m^2. The site area includes 57 cultural depressions believed to represent food cache pits.

Upon initial investigation it was expected that this site was of similar function to other large sites with cultural depression in this region. However, as excavation progressed, a high density, deeply buried cultural deposit became evident in the west part of the site.

FlRq–013 is bisected by a palaeo-channel of the Fraser River. The lithic concentration is situated within a buried palaesol that overlies a relict gravel point-bar on the river. Two perceptible flooding events have buried this palaeosol.

At approximately 11,000 BP, the confluence of the Fraser and Nechako rivers and most of the surrounding area would have been covered with

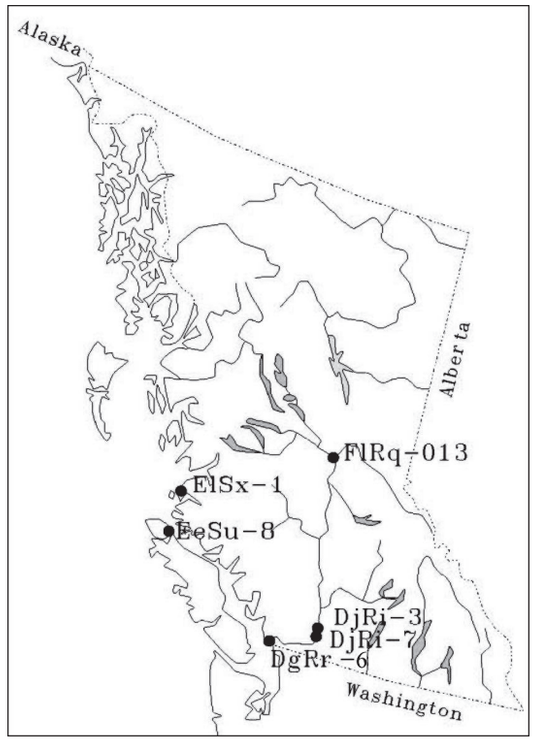

Figure 1. FlRq–013 and other sites with similar early artifact assemblages in British Columbia.

glacio-lacustrine sediments derived from the presence of Glacial Lake Prince George (Tipper 1971). Stratified varves are present in numerous road-cuts and river cut-banks in the surrounding area. When the dam forming this pro-glacial lake failed, a massive outburst flood scoured the glacial lake sediments. This event removed lake sediments from the area surrounding FlRq–013, and exposed the underlying glacial till. Subsequently, the till was remodelled by the action of the Fraser River, and formed the point-bar upon which FlRq–013 is located.

The early component of FlRq–013, referred to here as Component I, is associated with this palaeochannel of the Fraser River. The highest concentration of artifacts is situated along the terrace of this hydrological feature. It is estimated that Component I covers an area of 2658 m^2. Artifacts have been found as deep as 1.2 m below the surface, within the palaeo-channel itself. Component I cultural material is located in a 20–40 cm thick occupation layer. A total of 109.25 m^2 has currently been excavated within Component I, representing a 4% sample of this occupation of the site. The excavation has revealed localized concentrations of lithic material, some of which are focused around charred sediments. These burnt sediments are believed to represent hearth features, and also included calcine bone and red ochre. No diagnostic bone material has been recovered, and most specimens are fragments of large mammal long bones.

Two radiocarbon samples obtained from charcoal found in these hearth features give uncalibrated dates of 8770 ± 60 BP and 7970 ± 50 BP. The more recent date was collected from a hearth feature, located on the surface of the palaesol and may represent the final occupation of Component I, immediately before flooding made the site uninhabitable. The older date was collected from a hearth 15 cm above the gravel point-bar surface and represents early occupation of the site. However, it must be recognised that lithic material has been recovered from the surface of the gravel and consequently, the earliest occupation of the site likely pre-dates 8770 ± 60 BP.

The evidence examined to date from Component I of FlRq–013 indicates that the site was repeatedly occupied by associated groups of people. These groups were utilizing similar tool technology and cultural material for a period potentially as long as 1000 years.

The Assemblage

The subject of this study is an examination of the projectile point sample recovered during initial evaluation and excavation at FlRq–013 during the winter of 2006 to 2007. A summary of all tools and lithic debitage is also offered in order to present a more easily discernable comparison with other archaeological sites of the same age and technological affiliation.

The complete assemblage collected to date from FlRq–013 is comprised of 20,566 catalogued artifacts. This includes 18 uniface tools, 37 cores, 7 utilised cores, 7 cobble tools, 3 choppers, 1 unshaped sand stone abrader, 1 shaped sandstone abrader, 14 spall tools, 562 bone fragments, 19 pieces of red ochre, 304 decortication flakes, 466 primary flakes, 5605 secondary flakes, and 2930 tertiary retouch flakes. The assemblage also includes 41 examples of projectile points, including eight complete specimens.

Projectile Points

Forty-one examples of projectile points were recovered from FlRq–013. All specimens are of similar lanceolate form. Two of the points were recovered in sediments measuring above 40 cm below surface, which overlay the recorded extent of Component I.

Complete Projectile Points

Eight complete examples of projectile points were recovered from FlRq–013. One of these specimens is comprised of two uniting fragments, catalogue numbers 2469 and 2470, which were found within 20 cm of each other at the same depth. There appears to be three distinct variations of lanceolate point morphology represented. One style has an acutely pointed tip and a rounded base catalogue numbers 6357 and 2467 (Figure 2). Although this style has a thick cross section, collateral flaking along the margins has an obtuse angle creating thin margins. The second style is more narrow, has a much thicker cross section, and collateral flaking is at a much more acute angle to the plane of the point. An example of this is catalogue number 2459 (Figure 2). Both ends of this style are acutely pointed and the base is only identifiable by a slight roundedness. The third variant is a very rough lanceolate point that retains considerable preform characteristics (Figure 3).

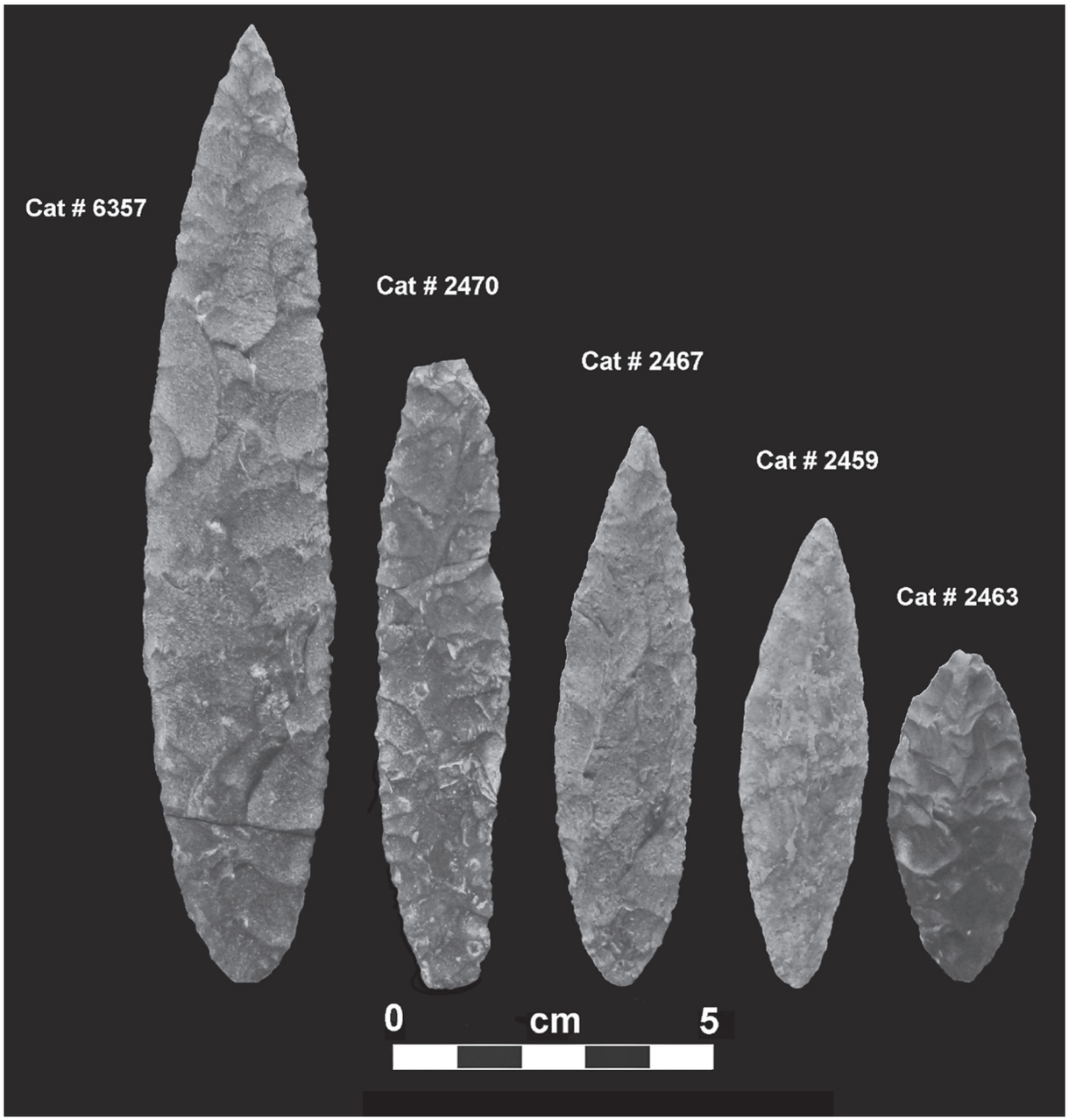

Figure 2. Lanceolate projectile points from FlRq–013 (8770 ± 60 BP, uncalibrated).

Catalogue Number 1847: This roughly-made item is a lanceolate projectile point manufactured from grey basalt. The distal end is tapered to a point while the proximal end is rounded. The profile is asymmetrical. The cross section is very thick and biconvex. The form is roughly shaped. On one side rough collateral flaking has produced a very high, well-pronounced medial ridge, and on the other longitudinal flake scars are present. It is more likely that this is an unfinished projectile point, or one expediently made to fulfill an immediate need.

Catalogue Number 2455: Number 2455 too is a roughly manufactured, lanceolate point made of grey dacite. It is difficult to distinguish the proximal from the distal end, as both are roughly pointed. The cross-section is very thick and of a right angled profile. Large irregular flakes have been removed along the margins to form a rough medial ridge. There is

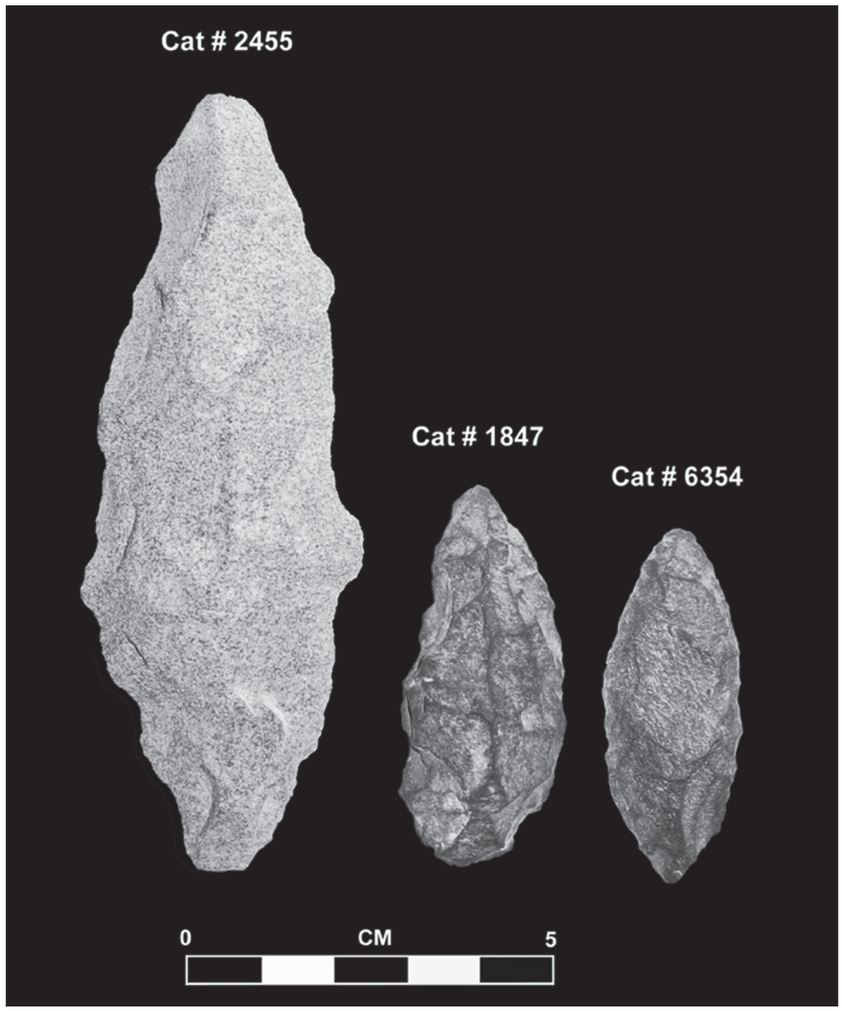

Figure 3. Rough lanceolate points from FlRq–013.

no reworking or retouching present. It is likely that this is an unfinished or expediently manufactured projectile point.

Catalogue Number 2459: This is a lanceolate projectile point manufactured from an unknown greyish green material obscured by a thick dark brown patina. Both the proximal and distal ends of this projectile point are acutely tapering, however the base is slightly rounded at the extremity. The cross section is very thick and biconvex. Flake scars are poorly defined, but are collateral and form an obvious medial ridge on both surfaces.

Catalogue Number 2463: This represents a complete lanceolate projectile point manufactured from black basalt. The distal end may have been acutely tapered but shows impact damage and evidence of repair. The proximal end is slightly rounded to converging. The cross section is thick and convex-plano. On the convex surface collateral flaking produces a marked medial ridge. On the Plano side large flake scars possibly relating to preform manufacture have removed any potential medial ridge. There is evidence of extensive marginal retouch

Catalogue Number 2467: Number 2467 is a lanceolate projectile point manufactured from black dacite. The distal end is acutely tapered to a sharp point and the proximal end is rounded. The cross section is thick and biconvex. Collateral flaking has produced a weakly defined medial ridge. Flake scars terminate well before the centre of the surfaces resulting in marginal thinning. Original preform flake scars are retained along the centre of the point.

Catalogue Numbers 2469 & 2470: These two fragments unite to form a complete lanceolate pro-

jectile point. The two fragments are broken along a hinge fracture. The specimen is manufactured from black basalt. The cross section is thick and biconvex. The sides are approximately converging but the edges are asymmetrical. Overall the point is narrow in form. The base is flat and extremely worn. Collateral flaking has formed a distinct medial ridge. However, towards the base flake scars do not meet and some preform surface is retained. Extensive retouch work is evident along the margins. The tip is missing and shows evidence of impact damage.

Catalogue Number 6354: Number 6354 is another example of a roughly made lanceolate point. This specimen is manufactured from black dacite. Both proximal and distal ends are converging and the cross section is thick and convex-plano. This point has retained preform characteristics and has not been extensively reworked.

Catalogue Number 6357: This 15 cm long point represents the largest complete lanceolate projectile point recovered. The tool is manufactured from black basalt, with a tapered to rounded base, and an acutely pointed tip. The cross section is thick and biconvex. Collateral flaking has produced an irregular medial ridge with some preform surface retained. The distal third has been extensively reworked, and the proximal third shows evidence of reworking. The proximal tip has been slightly thinned to facilitate hafting.

Projectile Point Fragments

Thirty-two projectile point fragments were recovered from the excavations at FlRq–013. Two of these specimens, Catalogue number 3369 and Catalogue number 1973, unite to form a large proximal fragment. It is also believed that Catalogue number 1946 and Catalogue number 2462 are the proximal and distal fragments of the same point, and a medial fragment is missing (Figure 4).

Catalogue Number 64: This specimen is a small fragment of a large lanceolate projectile point. This is manufactured from light grey basalt and appears to be a rounded proximal fragment. The fragment is well worn.

Catalogue Number 1750: A small fragment of a projectile point manufactured from light grey quartzite. It has converging edges with a straight base. The cross section is thick and bi-convex. The fragment is well worn and shows evidence of extensive Marginal grinding. A short longitudinal flake has been removed from the base. This is reminiscent to fluting or other forms of basal thinning such as that found in Plano style projectile points

Catalogue Number 1946: This example represents a narrow fragment of a lanceolate projectile point also manufactured from light grey dacite. It is a parallel sided to slightly rounded proximal fragment. The cross section is thick, almost as thick as it is wide, and biconvex. Uniform collateral flaking forms a well-defined medial ridge. The cross section size and style is very similar to Catalogue number 2462. These two fragments may be from the same projectile point.

Catalogue Number 1947: A small fragment of a larger projectile point manufactured from a darker grey dacite. Catalogue Number 1947 is a proximal fragment with converging sides and a level base. The cross section is thin and biconvex.

Catalogue Number 1953: A small fragment of a larger lanceolate projectile point, Catalogue number 1953 is manufactured from black dacite. It has converging edges, and the cross section is relatively thin and biconvex. Flake patterning is irregular with moderate retouch. The specimen shows evidence of medial grinding.

Catalogue Number 1960: This represents a fragment of a lanceolate point manufactured from black dacite. It is a proximal fragment with converging edges, and rough, irregular flaking. The cross section is thin and plano-convex.

Catalogue Number 1973: This example is a fragment of a lanceolate projectile point with converging edges. It is manufactured from black dacite. The cross section is thick, biconvex and slightly irregular. This fragment unites with Catalogue number 3369 and forms a large proximal fragment with tapering edges and slightly rounded base. Collateral flaking and retouch is evident, however some rough preform flake patterning is retained.

Catalogue Number 2065: This represents a small fragment of a larger lanceolate projectile point manufactured from dark grey basalt. It appears to be a proximal fragment with contracting margins and a rounded base. Basal margins show evidence of grinding.

Catalogue Number 2067: A large proximal fragment of a sizeable lanceolate projectile point with a rounded base. It is manufactured from dark grey basalt. The cross section is thick and plano-convex. Collateral flaking has produced a weak medial ridge

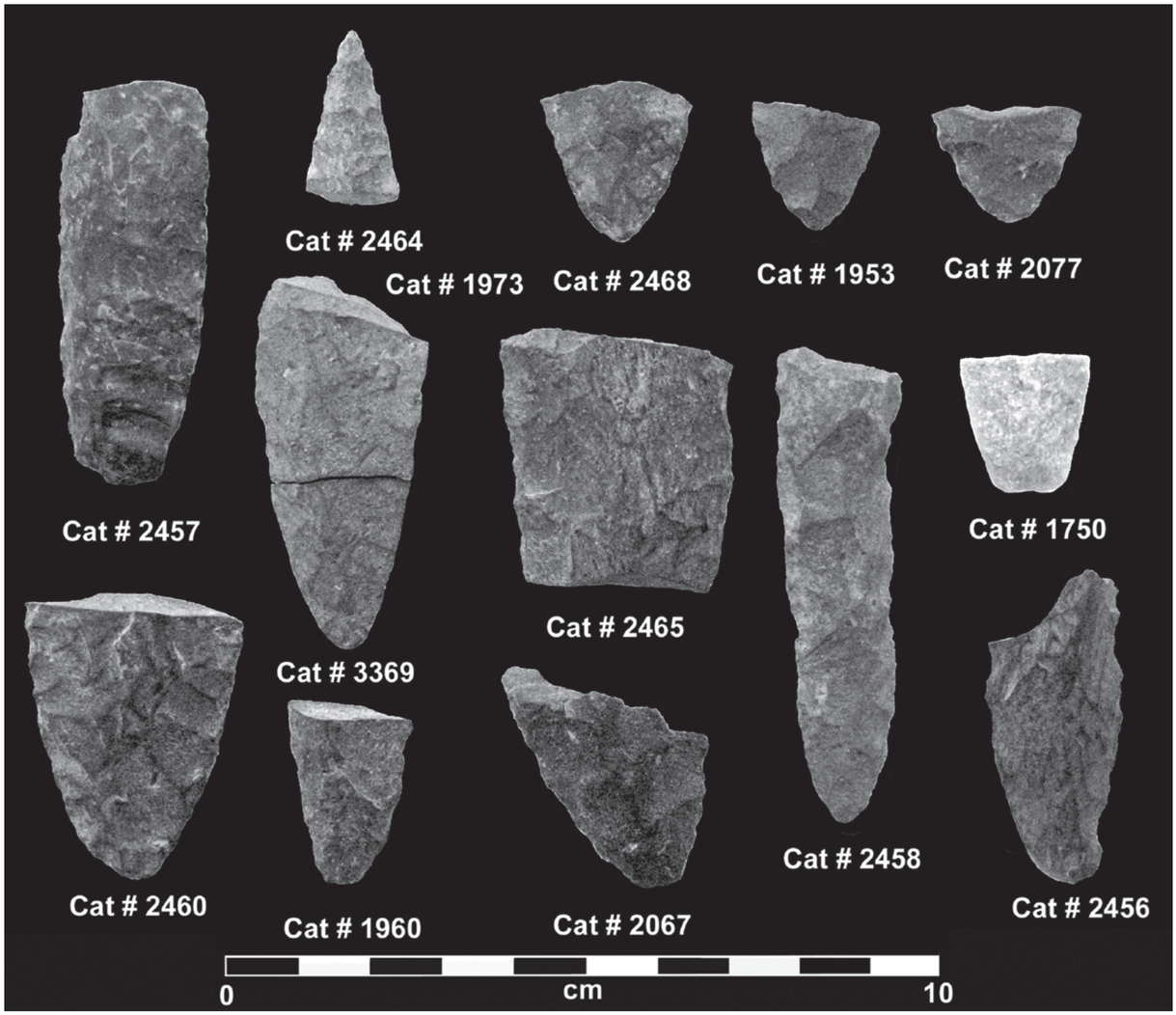

Figure 4. Selected projectile point fragments from FlRq–013.

on the convex side. Slight reworking and grinding is evident along the medial margins. The fragment terminates in a hinge fracture.

Catalogue Number 2077: This small proximal fragment of a larger lanceolate projectile point is manufactured from dark grey basalt. It represents a rounded base with collateral flaking, which overlaps and has removed any medial ridge. Basal margins show evidence of grinding. The fragment terminates in a hinge fragment.

Catalogue Number 2080: This specimen represents a large proximal fragment of a rough projectile point manufactured from dark grey basalt. The cross section is thick and plano-irregular. Rough flaking produces the irregular surface and a large preform flake scar produces the plano surface.

Catalogue Number 2365: This fragment is an example of a thick, narrow lanceolate projectile point. It is manufactured from dark grey basalt, and appears to be a distal fragment. The cross section is biconvex. Rough collateral flaking has produced an asymmetrical, weakly defined medial ridge. The tip is missing.

Catalogue Number 2368: A small fragment of a lanceolate projectile point manufactured from black dacite. It appears as an acutely tapered distal fragment. This example is well worn and only rough flaking can be identified.

Catalogue Number 2369: This projectile point fragment is manufactured from brown basalt. This is a proximal fragment with a rounded base. The cross section is thick and biconvex. Collateral flaking

does not cross the midline and some of the original preform surface is retained.

Catalogue Number 2456: This proximal fragment is from a large lanceolate point manufactured from black dacite. It has tapering to rounded edges. The cross section is very thick and plano-right angled. The Plano surface is asymmetrically, collaterally flaked producing an offset ridge. The right-angled surface retains a large preform flake scar on one side. It is roughly flaked on the other surface producing a steep sided medial ridge. The proximal edge of the base retains a small portion of cortex.

Catalogue Number 2457: Catalogue number 2457 is the distal fragment of a large lanceolate projectile point manufactured from black basalt. The cross section is thick and bi-convex. Asymmetrical collateral flaking produces a weakly defined medial ridge. There is evidence of moderate reworking. A deep flake scar and the absence of a minute portion of the tip may be damage caused during thinning or reworking.

Catalogue Number 2458: This specimen represents a large fragment of an unfinished lanceolate projectile point. It is manufactured from dark brown dacite. It is unclear if this is a proximal or distal fragment. Collateral flaking has produced a weakly defined medial ridge and a thick biconvex cross section. The fragment displays a defined hinge fracture, at which the fragment is thick and retains preform morphology.

Catalogue Number 2460: Another fragment of a large lanceolate projectile point. Catalogue number 2460 is manufactured from black basalt. It is clearly a proximal fragment with a thick, biconvex cross section. The base is tapering to rounded. Collateral flaking does not cross the mid line and an irregular medial ridge of preform surface is retained. This example is very similar in shape to the complete example Catalogue number 6357, although this fragment is considerably larger.

Catalogue Number 2462: This is an acutely pointed distal fragment from a narrow lanceolate point. The specimen is manufactured from light grey dacite. In cross section it is very thick and biconvex. The fragment is almost as thick as it is wide. Collateral flaking is uniform, creating a well-defined medial ridge. The cross section, size and style are very similar to Catalogue number 1946. These two fragments may be from the same point.

Catalogue Number 2464: Catalogue number 2464 represents a small, distal fragment from a larger projectile point. It is manufactured from black basalt. The fragment that tapers acutely, and in cross section is thick and biconvex. Flaking is irregular and approximately collateral with a defined medial ridge.

Catalogue Number 2465: This specimen is a fragment of a large projectile point manufactured from black basalt. It is a medial fragment with slightly tapering edges. The cross section is thick and plano-convex. The convex surface is roughly flaked and has an irregular mid-line. The Plano surface has very little reworking. The main surface retains the original preform flake pattern.

Catalogue Number 2468: A small black basalt fragment of a larger lanceolate point. It appears to be the proximal end of a converging to rounded base. The cross section is thin and bi-convex. Collateral flaking does not cross the mid line and it has no pronounced medial ridge, or evidence of basal grinding.

Catalogue Number 2939: This small, proximal projectile point fragment is manufactured from black dacite. The cross section is thick and biconcave. Flaking is irregular.

Catalogue Number 2988: This small fragment is clearly from a large lanceolate projectile point. It is manufactured from greyish green basalt. Catalogue number 2988 appears to be a proximal fragment of a contracting base, and base margins show evidence of grinding.

Catalogue Number 3369: A small, black dacite fragment from a larger lanceolate projectile point. Collateral flake removal on this specimen has formed a weakly defined medial ridge. The fragment appears to be a contracting proximal end. Its stem margins show evidence of grinding, and overall the fragment is well worn. This fragment unites with a medial fragment, catalogued as number 1973

Catalogue Number 3375: Catalogue number 3375 represents a proximal fragment from a large lanceolate projectile point. This tool is manufactured from dark grey basalt and has a converging to rounded base. The cross section is thick and biconvex. Collateral flaking produces a weakly defined medial ridge. Cortex is retained on one side of the medial ridge.

Catalogue Number 3376: This specimen is a distal fragment of a projectile point, manufactured from dark grey basalt. The fragment has been pro-

duced by collateral flaking, resulting in a weakly defined medial ridge. The cross section is thick and biconvex. The tip is acutely pointed, however the extremity is absent and shows evidence of impact damage.

Catalogue Number 3379: A proximal fragment of a larger projectile point, manufactured from dark grey basalt. The sides are contracting and narrow to a slightly rounded point. The cross section is thick and biconcave to slightly irregular. Collateral flaking is present around the margins.

Catalogue Number 3386: A distal fragment of a projectile point manufactured from black basalt. The cross section is thick and biconvex. Collateral flaking forms a slightly offset medial ridge. The general morphology is slightly asymmetrical and acutely pointed.

Catalogue Number 5116: This specimen represents a very small, thin proximal fragment of a projectile point. It is manufactured from black dacite. The fragment measures 7 mm long and a rounded base is evident.

Catalogue Number 5450: This specimen is small fragment of a larger lanceolate projectile point. It manufactured from dark grey basalt, and appears to be the distal end of an acutely pointed tip. Moderate reworking is evident in the form of marginal removal of microflakes.

Catalogue Number 6512: Another small fragment of a larger projectile point. This specimen is manufactured from light grey quartzite, and it is unclear if this is a distal or proximal fragment. The sides tapers acutely but the end is slightly rounded. It is more likely that this is the base of a point similar to Catalogue number 2459. The cross section is thick and biconvex.

Discussion

The projectile points recovered in the stone tool assemblage from FlRq–013 are a characteristic representation of a tradition that has been found on the Coast and Lower Fraser Valley of British Columbia. This tradition is alternately named Southwestern Coastal Culture, Proto-Western, Old Cordilleran, or Pebble Tool Tradition. Its distribution is well documented throughout the Pacific coast of British Columbia and Washington. For simplicity sake the term Old Cordilleran/Pebble Tool will be used in reference to this tradition within this article. This tradition is typified by lanceolate or willow leaf shaped projectile points and bifaces, large cobble tools and a generally macro-lithic technology.

Lanceolate forms dominate the collection of complete points from FlRq–013. Fluting and stems are absent from all specimens. Some of these points may actually represent knives rather than projectile points. The point assemblage is typified by a style that is relatively thick in comparison to other point styles from the mid and late prehistoric in the central Interior. The points have a bi-convex cross section, an acutely tapering point and a rounded or tapered to rounded base. These have been produced by collateral flaking and have a weakly defined irregular medial ridge. However, rough flaking is also typical, and retention of preform features is commonplace especially when expedient.

Of the 41 examples of projectile points 22 (53.5%) are proximal fragments. This is similar to that noted by Rasic and Gal (2000). It is likely that most distal and medial sections became fragments during active use of the projectiles, and that proximal sections were retained in their hafting. These would have been subsequently removed from the hafting at camp. Distal fragments may have also been retained within prey brought back to camp.

In addition to the point collection, the assemblage includes numerous simple and expedient tools. Artifacts such as choppers, cobble tools, and cobble spall tools appear to be made from local materials. Large cores and core fragments show retouch and utilization, and scrapers appear large and simply reworked. These items required only minimal manufacturing to produce the desired tools. Numerous large retouched and utilized flakes are also present. Overall, the Component I assemblage of artifacts at FlRq–013 appears to represent a simple, macrolithic technology.

FlRq–013 (Figure 5) predates the previously known oldest site in the Central Plateau of British Columbia. The Landells site (EdRi–011), located within the Lower Thompson River drainage, dates from 8500 BP (Rousseau 1991). FlRq–013 is one of the few sites in this region to reveal intact deposits containing a diagnostic tool assemblage. Radiocarbon dates from FlRq–013 are approximately analogous to those from archaeological sites with similar components along coastal British Columbia and the lower Fraser Valley (Mitchell & Pokotylo 1996; Carlson 1996; Matson 1996). In fact, it appears that

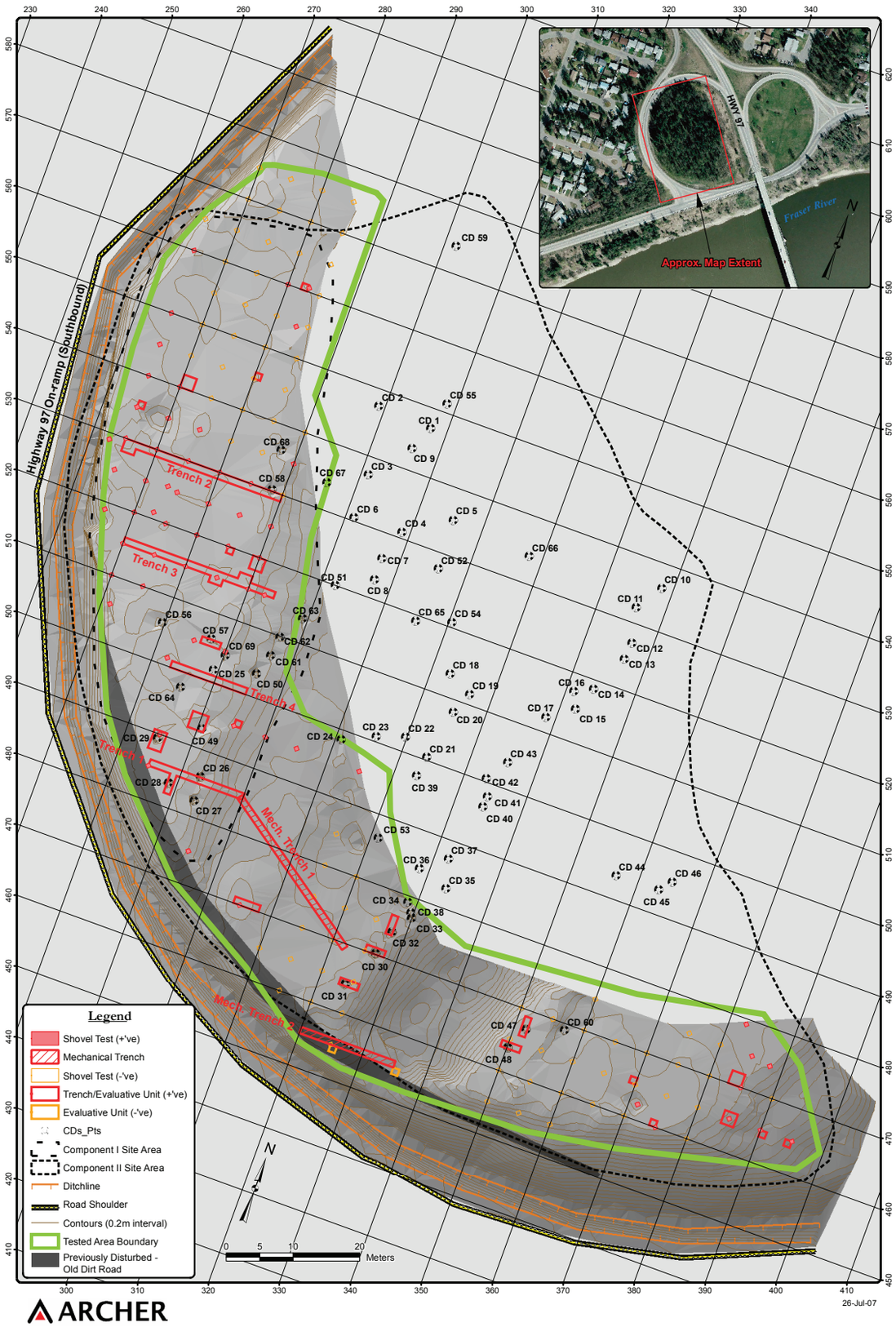

Figure 5. Archaeological site FlRq–013 at Simon Fraser Bridge, South Prince George, B.C.

Period 1 of the coastal site of Namu (Carlson 1996) and Component 1 of the interior site of FlRq–013 are contemporaneous. Four calibrated dates of 10,130 to 10,060 BP, 10,040 to 10,020 BP, 10,010 to 9990 BP and 9949 to 9550 BP are obtained from the conventional radiocarbon age of 8770 ± 60 BP.

The stratigraphic provenience of these artifacts at FlRq–013 is without question. Two thick layers of flood deposits seal the palaeosol in which the artifact assemblage was found. Outside of areas of anthropogenic activities the palaeosol is completely intact. The sediments immediately above are almost completely sterile of artifacts, and identified layers of sediments are continuous across the excavated area.

Conclusion

The point and biface collection of FlRq–013 discussed in this article provides us with one of the most comprehensive assemblages from the late-Pleistocene/early Holocene period on the Central Plateau to date. The size and antiquity of the assemblage, and integrity of Component I are unparalleled in the region.

FlRq–013 has brought forth new questions concerning the distribution and antiquity of the Old Cordilleran/Pebble Tool Tradition, which has been largely accepted as a coastal adaptation. The results of the excavations have also prompted a re-evaluation of previously accepted timelines for glacial retreat along the Fraser basin on the Interior Plateau.

A detailed account of the excavations at FlRq–013, as well as a comprehensive comparison with other Old Cordilleran/Pebble Tool sites is forthcoming. At a minimum, the results from these excavations will have significant implications regarding what we currently understand about the cultural material, subsistence, and migration of the earliest inhabitants of British Columbia.

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