

Appendix II: SUBSIDIARY SURVEY AND TESTING

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Chilko River Survey

In addition to the quadrat survey at Eagle Lake, we also carried out a non-collection survey along the upper end of the Chilko River, mainly to locate sites that could contribute to resolving cultural history questions regarding the Pre-Plateau Pithouse Tradition, i.e., the period prior to 3000 B.P. Since there appears to be a concentration of sites along the rivers on the Plateau, we thought this would be the best area to survey to attempt to find a stratified non-house pit site with evidence indicating a separable early component. The absence of house pits was desired because the presence of house pits usually means that the deposits are highly disturbed (Wilmeth 1977).

The procedure we developed was to survey both sides of the river, focussing on the immediate river banks and lower, open terraces. We used the same cultural forms as on the quadrat survey and produced equivalent sketch maps, but usually did not do any collection. Our intensity of survey was also less than that on the quadrats, as measured by the distance between searcher. On the other hand, more attention was spent on sites that looked like they might have significant depth of deposit. Those sites that looked like they might have a significant depth of deposit were later tested.

The area surveyed was the Chilko River, from near its outlet to about 30 km downstream (northward). In addition to this, the area at Bidwell Creek, the “Quiggly holes” site, was also mapped and tested, about 25 km (15 miles) further downstream from the end of the continuous survey zone. We also extended the survey to the shores of Chilko Lake adjacent to the outlet, and actually began our survey there. In all 105 Chilko River sites were located, of which six had been previously recorded, several by the quadrat survey.

The distance from the river that was surveyed was variable, and often dependent on the landform and amount of ground coverage, with broad open terraces surveyed even if they extended some hundred meters away from the river. In an idiosyncratic survey carried out in 1997 (Klassen and Ridington 1998) that included some areas that we surveyed along the Chilko River, a housepit site (with 5 housepits) was discovered that we apparently had missed (EkSa 142). On inspection (Klassen and Ridington 1998:129-131) it turns out that we found an adjacent site (CR #9; EkSa 116) closer to the river and the housepit site (EkSa 142) actually began more than 100m from the river in a lodgepole and aspen forest. So this “error” appears to be more a limitation of the survey technique than an survey error since the site was not on an open area adjacent to the river.

As we will point out later, housepit sites are located up to 3 km away from the Chilko River according to our data – a finding Klassen and Ridington (1998:83 “two kilometres”) agrees with – so a riverside survey will miss those that are not adjacent. What this means is that there are clearly more housepit sites along the Chilko River than we located; those that we may have missed, and those further from the river than we searched, and EkSa 142 is an example of the latter. We will also report on another “near Chilko River” housepit site located by Klassen and Ridington (1998) in another context.

Chilko River Survey Results

The Chilko River survey was primarily intended to discover stratified sites with regional culture history significance with a minor goal of extending our knowledge of sites in the area. Some 105 sites were recorded from the outlet of Chilko Lake to 30 km downstream, on both banks of the river. What was sought was a stratified site that was not a housepit site, and so would not be disturbed prehistorically. In this relatively large number of sites no such reasonably good culture history site was found. This was disappointing, but not too important in the end for the major goals of the project.

A number of sites from the Chilko River Survey were tested and three charcoal samples were radiocarbon dated. Microblades were located at none of the sites in the Quadrat or Chilko River Survey and only two probable atlatl points found. One would have to estimate that we have little evidence of material older than 3000 B.P.

The Chilko River Survey is also valuable in terms of giving us a full picture of the nature of site distributions along the Chilko River, the environment with the highest density of sites in the area and verifies the general picture obtained from the quadrats. Because the riverside area was densely occupied prehistorically and because of the less detailed recording criteria and the lack of collecting, 103 separate sites (two sites were later joined with others after further analysis) were found in a relatively small time. As is seen in the accompanying table (Table II-1) most sites had pit features with over 340 cache pits reported and an average of about one and a half house pits per site. The survey also included over a dozen lithic scatter sites which were almost invariably found on low open terraces immediately adjacent to the river and often with historic fish camp remains similar to Quadrat 19 site 1. These are almost surely prehistoric salmon fishing camps.

The sites very neatly fit into the three categories listed, house pit, cache pit or riverside fishing sites. The ratio of cache pit to house pit sites appears to be about the same as found on the Quadrat survey, slightly more cache pit sites than house pit sites (18 to 16 in the 1979 quadrat survey, 50 to 37 in the Chilko River survey). Lithic scatters were proportionally more common on the quadrat survey.

The number of house pits per house pit site is more than twice as many on the river survey as on the Quadrat survey (means 4.0 to 1.9) as might be expected given the importance of salmon and the PPT pattern of multiple pithouses close to salmon streams which is the expected Pre-Athapaskan pattern in this area. It should be noted that the 37 house pit sites recorded in this 30 km stretch is a minimal estimate, given our concentration on open areas close to the river. In fact, Klassen and Ridington (1998) recorded three other house pit sites in the same stretch, albeit further from the river than we surveyed. Today 40 house pit sites are known in that 30 km and many more undoubtedly exist. We thus have an minimum estimate of 1.33 house pit sites per km of river and an minimum estimate of 5.3 house pits per km of river (4.0 x 1.33).

The mean number of house pits per house pit site along the Chilko River (4.0) is very similar to that found in the MOC quadrat survey. Depending on how one treats the repeatedly sampled quadrat (either 41 or 44 MOC housepits), and whether one uses the 50m or 100 m of no surface visible site criteria for definition of separate site (9 or 12

Total Number of Sites		Number of House pits per House pit site:	
<u>Type</u>	<u>No.</u>	Mean	4.0
House pit	37	Median	2.0
Cachepit	50		
Lithic scatter	13		
Single Artifact	<u>3</u>	Number of House pits per All Types site:	
	103	Mean	1.44
Number of Cachepits per Cachepit site:		Median	0.0
Mean	5.0	Interquartile	0-1
Median	2.0	Site Size, in Square meters:	
Number of Cachepits per All Types site:		Mean	5023
Mean	3.4	Median	300
Median	2	Interquartile	15-1700
Interquartile	1-3		

Table II-1, Summary of Chilko River Survey

MOC house pits sites) the mean number of house pits at MOC ranges from 3.4 to 4.9, a distribution which includes the Chilko River estimate. As far as we can tell, the size of house pit sites along the Chilko River and MOC are the same.

In contrast to the larger number of house pits per house pit site along the Chilko River than in the Quadrat survey, the mean number of cachepits per cachepit site is 5.0 along the river compared to the nearly identical 4.79 for the cache pit sites discovered during the 1979 Quadrat survey (and 3.8 for the combined 1979 and 1983 survey results). So, although the house pits occur in larger concentrations along the river, the cachepits occur in the same size groups.

If we compare these numbers with those found at MOC, we see more similarities than differences. A total of 99 cachepits on 21 cachepit sites were found in the MOC quadrat survey for a mean of 4.8, not significantly different from the Chilko River survey or the 1979 Eagle Lake Quadrat survey. At the MOC, however, we divided the cachepit sites into three locational variants, Ravine Cachepits sites (mean of 5.2 cachepits), Ecotone cachepit sites (mean of 2.8) and Riverside Cachepit sites (mean of 11.7). One might argue that it is the last class that should be compared with the Chilko River cachepit sites, but since only three such sites are found at the MOC (with 23, 3 and 9 cachepits), the apparent difference in size is not significant. So the reliable numbers are very similar between the three areas.

Some sites did not fit in with this three part classification. One was tested, Chilko River site 64, and will be discussed below. Another was a recently abandoned sweat lodge which not only fit informant descriptions (see section by L. Burnard-Hogarth in Chapter 2 of the main text) but also solved the mystery of small piles of river cobbles found in Quadrat Q19. In general the survey gave us an increased sample of some of the most common sites found in

the quadrat survey and verified the pattern found near Chilko River using the more intensive quadrat technique.

Specifically, we previously listed six site types expected for the PPT, three of which we expected to be relatively near the Chilko River, winter pithouse villages, riverside fishing sites, and near-river cache-pit sites. These three site types include almost all of the sites found along the Chilko River. The relatively large numbers of house pits found close together near the river are expected only in the PPT settlement pattern, confirming its presence along the Chilko River. The numbers of both house pit and cache-pit sites and the number of the pits present are close to that seen in the MOC survey, much closer than between the respective quadrat surveys. In both surveys the riverside fishing sites are less common than the other two site types. These observations indicate that the area immediately adjacent to the Chilko River is the most appropriate to compare with, and the most similar to, the MOC Grassland Quadrats and indicate the strong presence of the PPT along the upper Chilko River.

The other cache pit and riverside site types are associated with both the PPT and the expected Athapaskan settlement patterns. The large numbers of those two and the house pit site classes confirm the pattern based on the smaller numbers found during the quadrat survey, particularly the very small numbers of riverside fishing sites, as only two quadrats, Q 12 and Q 19 actually had riverside areas present. This site class is discussed in more detail below under EkSa 5, the Canoe Crossing site.

The extent of the Chilko River survey on either bank depended on the topography. The survey area in some cases included wide lower terraces extending as much as 500 meters and in other steep, almost canyon like areas, only extending to 50 meters. The drawbacks of this approach were discussed earlier in the methodology section when we reviewed Klassen and Ridington's (1998) overlapping survey. In spite of the relatively large number of sites we discovered none of these that we investigated further turned out to have clear potential to contribute to our knowledge of the Pre-PPT. Two places with multiple buried soil horizons were found but no archaeological material was found at either location.

Of these sites, the ones that appeared to be best suited for culture history work were tested. A total of six sites were tested and a very brief description of each follows below. With the benefit of both hindsight and 20 years more experience, the choice of sites for testing no longer appears optimal. In all cases 1 m x 1 m units were used in excavation. Further details of the testing are available in Matson et al. 1980.

Tested Riverside Sites

Some fourteen riverside lithic scatter sites were located during the Quadrat and the Chilko River surveys. They shared a number of characteristics (that is most of these sites, had most of these characteristics). These included (by definition) extensive lithic scatters along the Chilko River that are extensive in size and quantity relative to other sites found in the study area. These lithic scatters were located along low level, open, grass covered terraces. Although the absolute height of the terraces varied, these sites were always located on the lowest terrace available that is not currently being seasonally flooded. Very frequently, including EkSa 5, they were used in the 1980s by the Chilcotin as late summer fishing camps. They also very frequently had obvious fish resources adjacent; at EkSa 5, a spawning ground

for Chinook salmon existed immediately in front of the site, more typical would be some sort of constriction in the river. At three or four of these sites, house pits were found, but never in the lithic scatter, usually in timber and usually further from the river than the lithic scatters.

Along with these characteristics all four tested had very shallow cultural deposits. All these sites appear to be prehistoric salmon fishing sites. In view of their shallowness of deposits, their frequent use today as aboriginal fishing sites and as camping sites for others, this group of sites appears to have a troubled future.

EkSa 5; The Canoe Crossing Site, CR 2

This was the first site to be tested. Located at Canoe Crossing, a wide slow moving (relatively speaking that is) part of the river just four kilometres downstream from Chilko Lake, this site includes two adjacent concentrations of housepits, that included a total of 70 cultural depressions as well as a large lithic scatter located on a grass covered terrace next to the river (Figure 5, main text, and II-1). It was on this terrace that the four 1 x 1 m test units were placed.

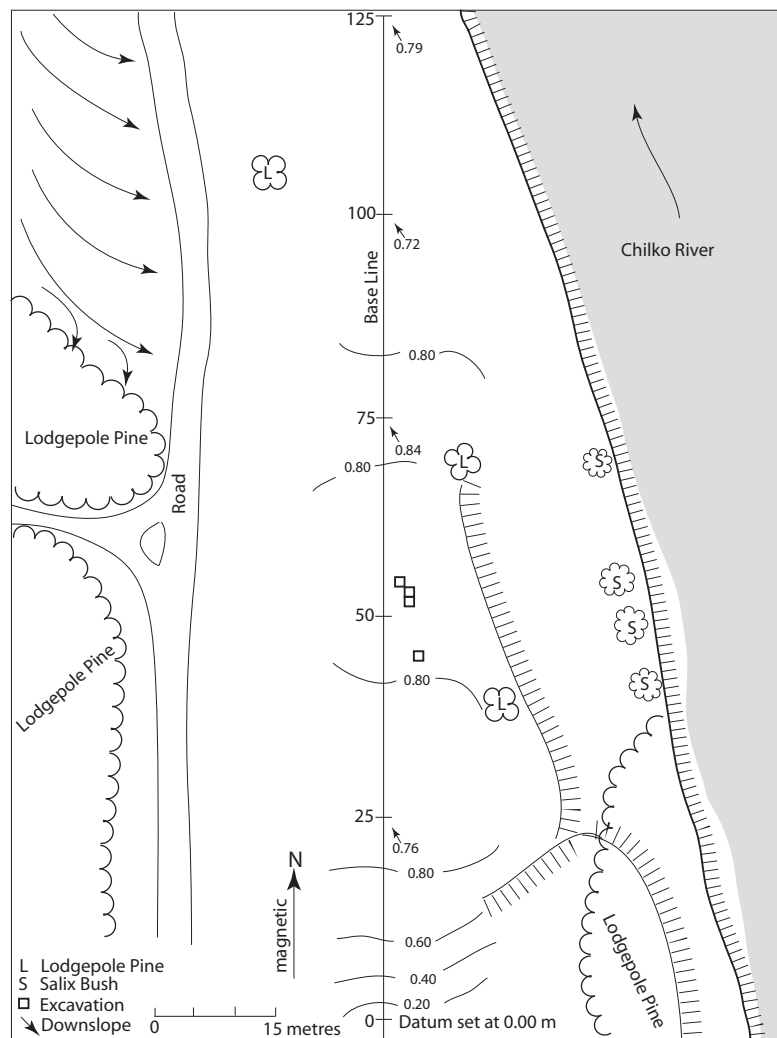


Figure II-1. Map of EkSa 5, the Canoe Crossing site.

Very little material was recovered from these units, which were excavated in 5 cm, levels to a maximum depth of 19 cm. Such artifactual material as was recovered (42 items) was found in the top most sandy soil layer, and none in the gravel layers underneath. The sandy layer was usually less than 10 cm deep.

In view of the size of the Canoe Crossing site, including many house pits in another portion of the site and of the size of the lithic scatter, which extends more than 200 by 60 meters, the shallowness of the deposit is disappointing. Unfortunately, shallow deposits appears to be the usual case for this type of site.

A total of 28 house pits and 42 cache pits were identified at this site. A total of 10 house pit depressions were over 10m or more in diameter, with three (E, F1, and I) having the largest diameters of 14 m indicating that this is likely a Lillooet site, although this would need to be confirmed by dating. It is not, however, as good as case the next site discussed. In any event, it is one of the largest PPT sites along the Chilko River.

ElRw 4 (Quiggly Holes; Bidwell Creek Site)

This site is much like that at Canoe Crossing, being the other very large site known in this area prior to our investigations. This site was actually to the north of our continuous survey area, and had a total of 169 pit features in the area we mapped (Figures II-2 and II-3). Lithic scatters existed in the terraces between the housepits and the river and on a large slump deposit between the river and terraces. A total of three 1 by 1 metre units were excavated, one on the lowest terrace and two on the “slump” next to the river. The material recovered

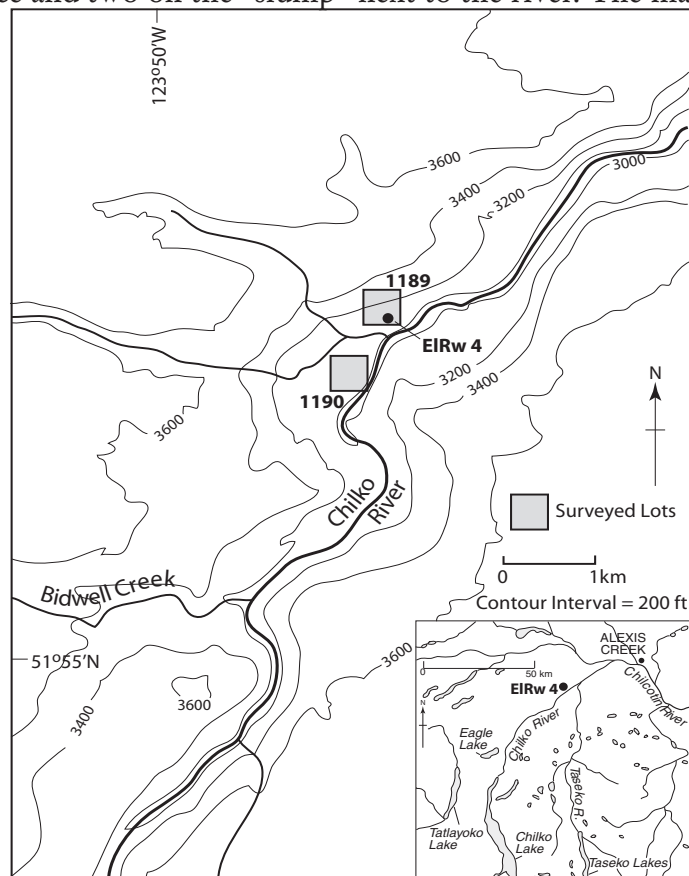


Figure II-2. Location of ElRw 4, “Quiggly Holes”

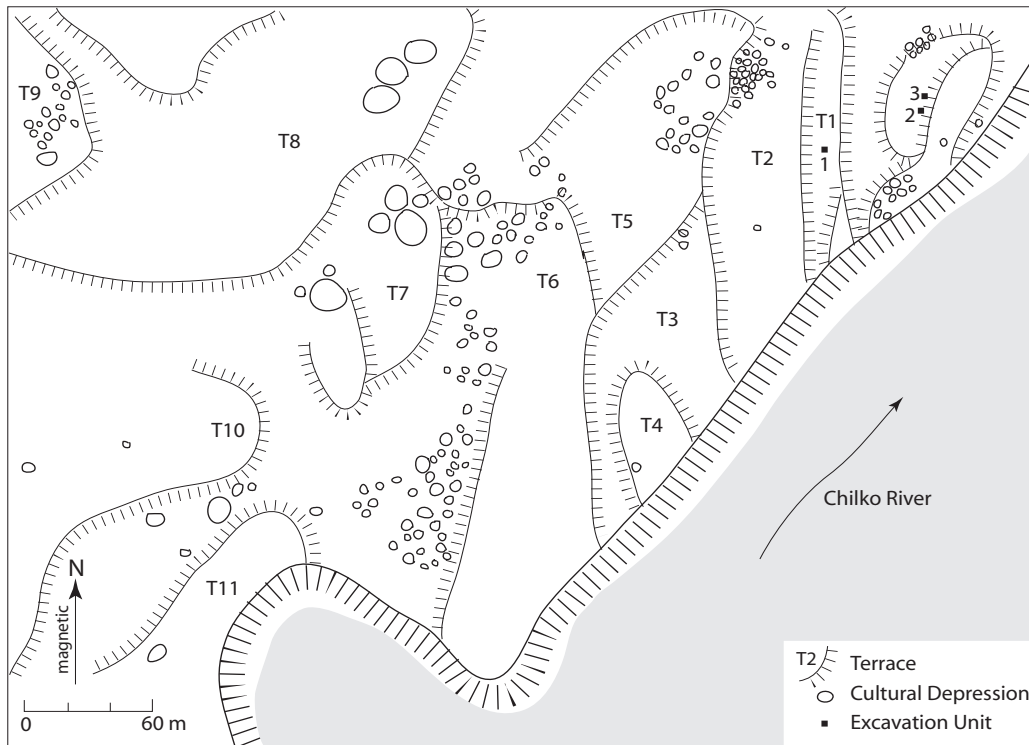


Figure II-3. Map of EIRw 4. Quiggly Holes.

was relatively evenly distributed among the three units, but with only a single excavation unit (No. 3) having cultural material to a depth of 20 cm. Several good looking radiocarbon samples were also collected from this unit, as well as a few pieces of bone. One of the radiocarbon samples was assayed (SFU 16) and gave a date of 280 +/- 80 B.P.

This site then is similar in many ways to EkSa 5, consisting both of a large series of house pits including some of very large size (17m in diameter according to Klassen and Ridington 1998, three of 15m in diameter according to our 1979 records), and a riverside lithic scatter site. The actual number of house pits present is unclear, as there is a large number of 4-5m in diameter depressions that do not appear to be root roasting pits, but without testing it is unclear what function they have.

Both Quiggly Holes and Canoe Crossing were used in the 1980s as fishing sites and have been historically. While these groups of large house pits ought to be Pre-Athapaskan and thus dates from them ought to pre-date the Chilcotin, the lithic scatter site locations, if not used today by Chilcotin, were until recently and one might expect were also used previously by non-Athapaskans. A date from the lithic scatter area can only be associated with one of the other cultural traditions by artifact associations, which are not present in sufficient numbers by the test excavations done.

The site of EIRw 4 is located at the downstream end of what the river rafters call the "white water mile" and a nice but small calm pool exists there. This pool is what is used today by the Chilcotin and poles and dry rock holding pens are found along the pool as well as fish drying camps located up on the terraces. In addition to the Quiggly Holes site itself, there are several other sites in the area, some of which were recorded by Klassen and Ridington (1998). The Quiggly Holes site, itself, a very large site, with the presence of

enormous house pits, at least 15 meters in diameter, its good condition and dramatic setting make it ideal for an archaeological park. Its size would make any comprehensive archaeological investigation a task of overwhelming magnitude. It is both the largest and most impressive site in the area, and as such does have extra importance.

Chilko River No. 92, EkSa 33, the Brittany Creek Site.

This site, near the mouth of Brittany Creek, is another riverside lithic scatter site. In 1979 about half of it was surface collected as well as two units excavated in natural layers to a maximum depth of 10 cm where sterile was found (Figures II 4, II-5 and Table II-2). In 1985 the rest of the site was collected (Alexander and Matson 1987). The collection and excavation were done to obtain comparable data with Quadrat 19 of the Quadrat survey, particularly for the lithic analysis as well as for possible culture history work.

The material recovered (Table II-2) was not numerous, but a single charcoal sample was obtained as well as several small bone fragments. A date of 860 ± 80 BP (SFU 14) was obtained from this sample. As one expects this site was located on a low grassy terrace, and the cultural material was all in the surface sandy material which lay on a sterile gravel layer. Although not located at an obvious fishing location, historic fish camps indicate that it has been used as one recently.

This site appears to be typical of riverside lithic scatter sites with abundant surface material but little depth. Of interest is the presence of a stemmed Kavik point found in the surface collection (See Ormerod, Appendix I). A multiple side notched point was also found on the surface, indicating presence of both projectile point traditions. The radiocarbon date indicates the presence of a Pre-Chilcotin occupation, as suggested for ELRw 4. It also confirms the probable mixed nature of the site and lack of substantial time depth.

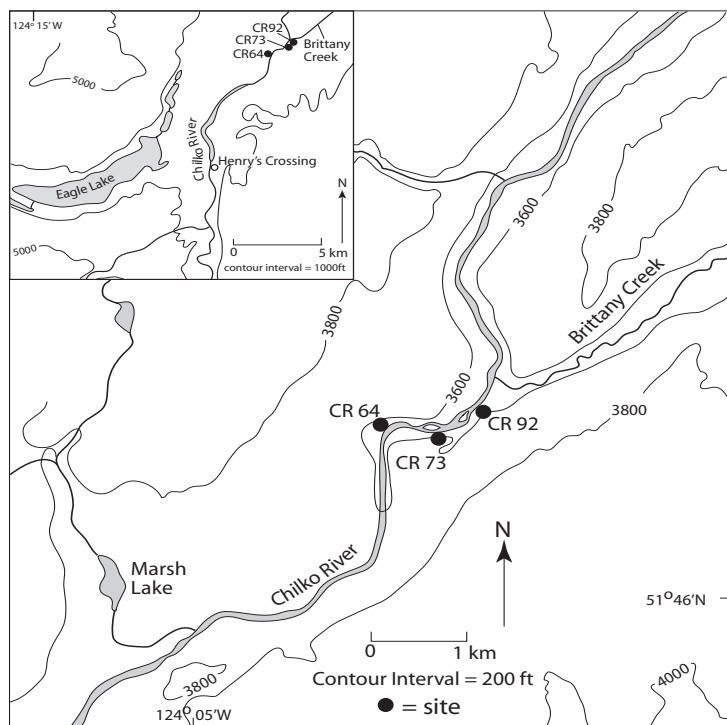


Figure II-4. Location of CR 64 (EkSa 34), CR 73 (EkSa 35) and CR 92 (EkSa 33).

Artifact Class	Canoe Quiggly Crossing Holes		Brittany Ck. CR 92-EkSa 33		Exca. Q19-1	EkSa 34 CR 64	EkSa 35 CR 73
	EkSa 5	ElRw 4	Excav.	S. Coll.			
Bifaces	0	1	0	17	0	0	0
Small Points	0	5	2	12	0	0	2
Bifacially Ret. Flakes	0	7	0	23	0	1	1
Pieces Equ.	0	1	0	53	0	0	0
Unifacial Ret. Flks, Narrow Ang.	0	2	0	19	0	0	0
Unifacial Ret. Flakes, Stp. Ang.	0	1	0	3	0	0	0
Heavy Duty Cutting/Scrap.	0	0	0	1	0	0	0
Cortex Spall Tool	0	1	0	12	0	0	0
Utilized Flakes	0	8	0	15	0	10	1
Misc. Tools, etc	0	1	0	19	1	0	16
Basalt Debitage	35	1023	242	1687*	35	43	39
Obsidian Debitage	7	36	93	649*	12	0	21
Bipolar Debitage	0	3	0	16*	0	1	0
Total Tools	0	27	2	174	1	11	20
Total	42	1079	337	2526	48	55	80

Miscellaneous Tools, Etc., includes 1 drill in ElRw4, 1 piece of ground slate in Q 19-1, 2 pieces of decorated slate, 5 quartzite flakes, 3 “waisted” stones, 2 incized bones frag., 2 polished pebbles, and 2 celt fragments in CR 73, see Table 35 (main text) for EkSa 33.

* Figures from Table 33 (main text). Flakes less than 5mm in greatest dimension deleted for this set only.

Table II-2. Chilko River Excavation and Collection Artifact Summary

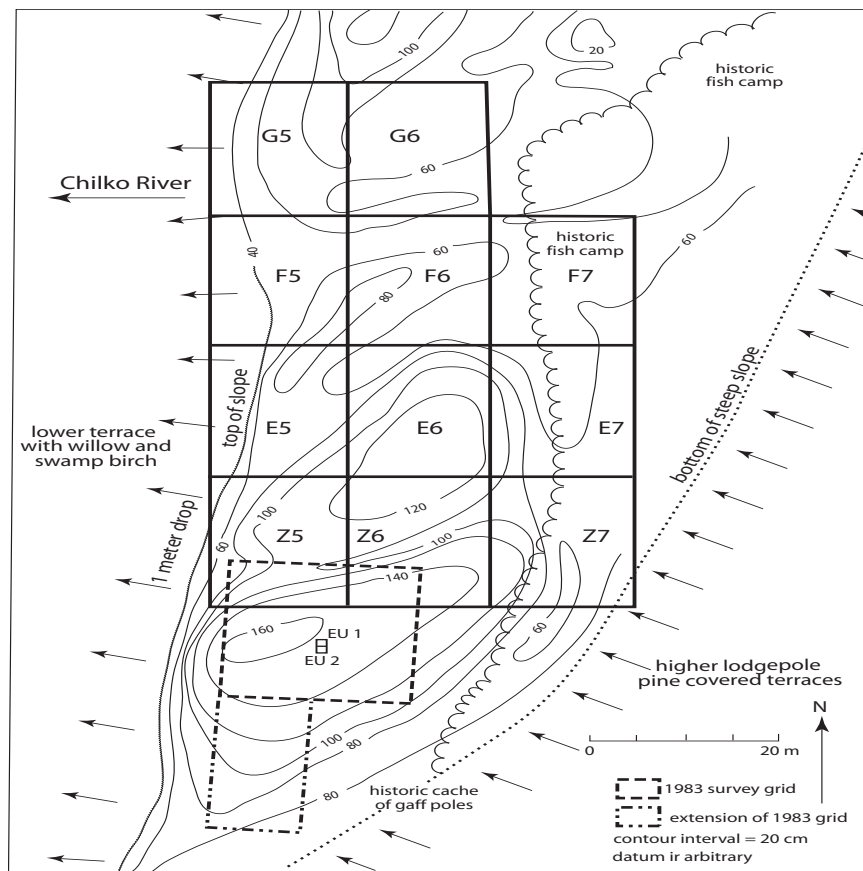


Figure II-5. Map of Chilkho River 92 (EkSa 33), the Brittany Creek site.

Quadrat 19, Site 1 (EkSa 27)

The archetype of the riverside lithic sites was also tested. This was the only site located on the quadrat survey which appeared to have any Pre-PPT culture history potential. In addition it was desired to try to obtain some dateable material from this site. Three units (Figure 23, main text) each 1 by 1 metre were excavated to sterile which was 10 cm with one exception, an ash feature which went to 25 cm. As seen in Table II-2, not much material was recovered, but 3 charcoal samples were recovered, as well as a few bone fragments. The best charcoal sample was sent off but when combusted turned out to be too small to date.

In general none of the riverside lithic scatter sites showed the culture history potential that we had hoped for, although other useful information was obtained. In addition to the riverside lithic scatter sites two other sites were also tested, each one in some way unique.

Chilko River 64 (EkSa 34)

This site located north of Marsh Lake (Figure II-4) was immediately adjacent to the river on a small alluvial terrace in front of a basalt lava flow. Site 64 was partially cut by the road, but was noteworthy in that large mammal bones were present. Two 1 x 1 metre units were excavated (Figure II-6) yielding 44 pieces of debitage and two tools. Large mammal bone were present, however, to the extent of about 230 gms. These appear to be either elk or deer (most likely) bones, all well fragmented. In addition to the flakes and bone, abundant fire fractured rock was also recovered. In excavation unit 1 a concentration of fire fractured rock and bone was discovered in the south west corner.

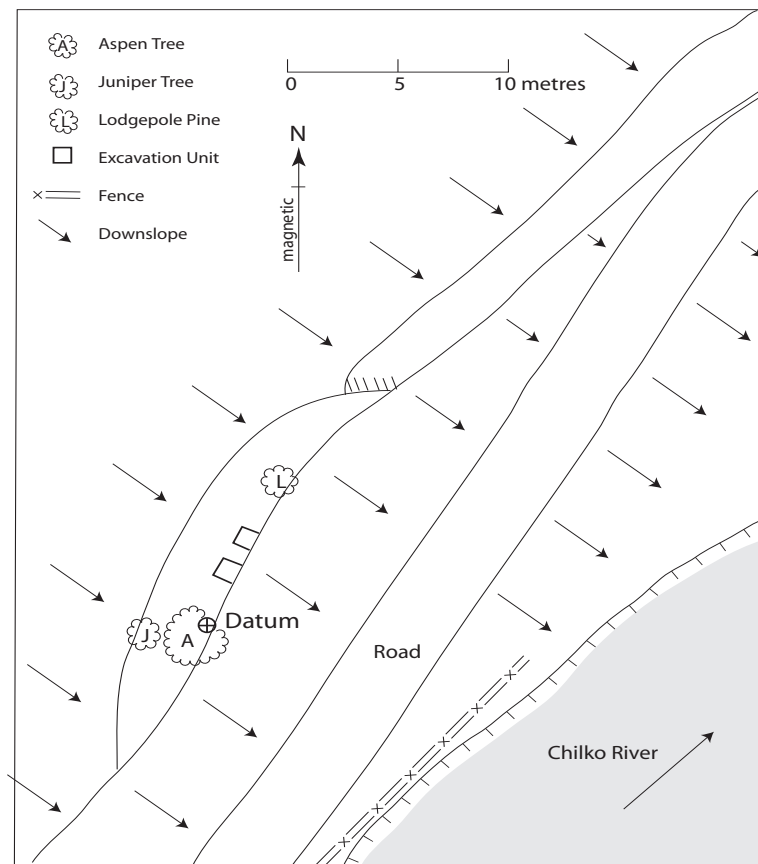


Figure II-6. Map of Chilko River 64 (EkSa 34).

In general the obvious interpretation of this site as a marrow processing site seems to be supported. Certainly this site is very different from any of the others excavated and a shallow deposit (maximum 17cm). Again the cultural deposit was in relatively fine alluvium on top of sterile gravels. (Although in this case more fines were found mixed with the gravel than at other sites).

Chilko River 73 (EkSa 35)

While surveying the Chilko River, a house pit truncated by the river was found near Brittany Creek (Figure II-4). In the exposure several burned pieces of wood were noted. In view of the possibilities of dendrochronological dating and the dating of at least that house pit using radiocarbon we excavated four 1 by 1 metre units. This site was excavated using natural layers (Figure II-7).

The projectile points included one stemmed point (possible Kavik or Klokut point) and a triangular side point with an indented base. Both of these styles are found in Athapaskan sites but not in recent Salish sites (Magne and Matson, 1982,1987; Matson and Magne 2004; Chapter 5, main text). Besides lithic artifacts, abundant fish bone and some large bone was recovered. The main purpose of the excavation was amply fulfilled as no less than 17 samples

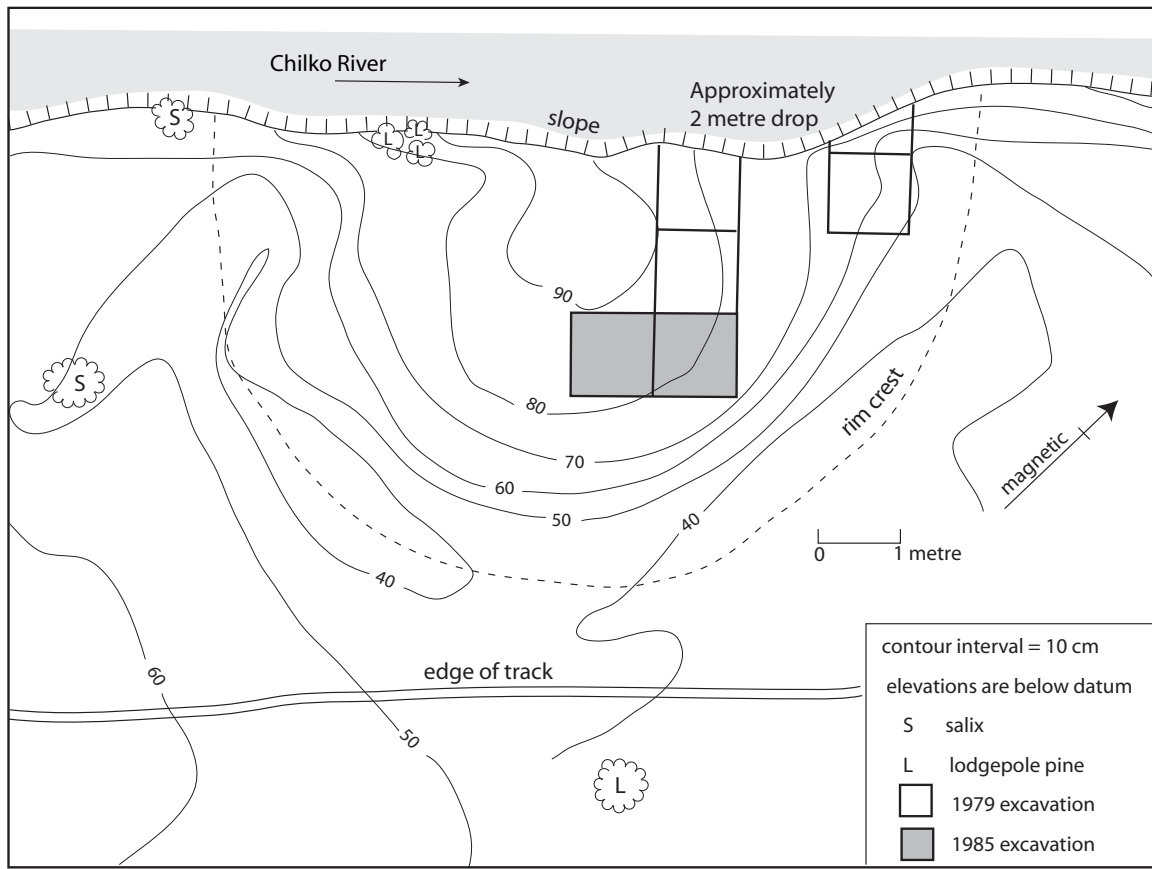


Figure II-7. Map of Chilko River 73 (EkSa 35).

of charcoal were recovered for possible radiocarbon dates as well as two possible dendrodate samples. In none of the four units was the cultural deposit very deep, with the units in the centre of the house pit hitting sterile (gravel again) within 10 cm, but with up to 25 cm of deposit seen near the rims.

One of the radiocarbon samples has been processed, giving a date of 360 ± 80 BP (SFU 15), well within the expected range of the Athapaskan migration, and likely within the range of living tree chronologies. Both of the large “dendrodate” samples were not datable. Although the sample from this site is very limited, the information we obtained in 1979 is in an agreement with what would be expected for a Chilcotin occupation. For this reason the site was re-excavated in 1985 (Alexander and Matson 1987), with two additional 2 one by one meter units but only three more lithics and several additional radiocarbon samples were added to those recovered in 1979.

Fishtrap Lake site (EkSb 27, T 84-27)

The lithic scatter collected at the Fishtrap Lake site (EkSb 37 or 84-27) is located on a small knoll on the north shore of Fishtrap Lake (Figure II-8) near Quadrat G 20 (Q44) (Figure II-5). In 1985 we decided to collect this site which had been located and mapped during 1984 ethnoarchaeological investigations (Alexander et al. 1985). Down slope and to the southeast of the scatter are numerous other historic and prehistoric features which may be part of the same site. They include the remains of three cabins, an outhouse, a storage cellar, two corrals,

three drying racks, numerous other historic structures and artifacts, and a second, smaller lithic scatter. Two roasting pits were located in the area of the lithic scatter (Figure II-8). Except for a few historic artifacts there is no evidence of historic activities in the area of the large lithic scatter.

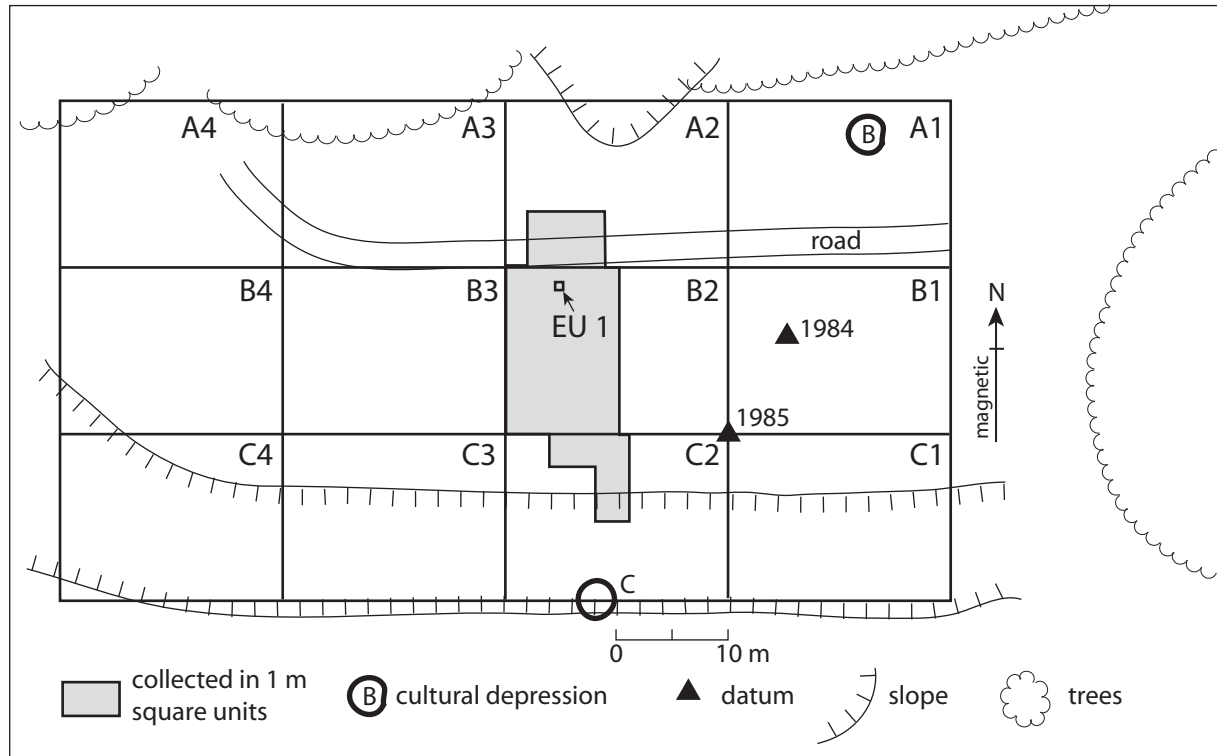


Figure II-8. Map of The Fishtrap Lake Site (84-27; EkSb 37).

There are three important resource locations near this site. To the south is an area typified by numerous small lakes and rugged terrain that has large, dense patches of balsamroot sunflower and was also used in the historic period for the hunting of deer and elk. Northwest of the site, in what is now a dry part of Eagle Lake, is a large historic weir which was used to catch spawning sucker (*Catostomus* sp.). Finally, to the east is another weir on the stream draining Fishtrap Lake which was used to catch spawning kokanee and the mouth of this stream is also the location that the mountain whitefish (*Prosopium williamsoni*) spawned.

A single 50 cm x 50 cm unit was excavated that revealed a 5 cm cultural layer underlain by sterile aeolian silt. Only 49 small flakes were found in the excavation. No charcoal for radiocarbon dating was recovered.

A total of 2075 catalogued items were recovered from the site, 29 of which were historic artifacts. The majority of the lithic collection (72.1%) were less than 1 cm in maximum dimension, much smaller than most other surface collections and only 28 were retouched tools. Of the 28 tools, bifaces (18) are more common than unifaces (10) including four Kamloop side-notched points or fragments.

Summary of Chilko River Testing Programme

Some generalizations can be made about these sites. In none was there any indication of a reasonably deep deposit as sterile was located in all units within 25 or 30 cm with 10 cm being the more usual situation. In none was there any indication of antiquity in that neither microblades nor atlatl points were recovered although 14 small points or fragments were. The only evidence of “stratification” was seen at ElRw 4 where groups of different size housepits suggested progressive occupation of the area. In addition to ElRw 4 and EkSa 5, EjSa 11 (aka CR # 1) actually at the outlet of Chilko Lake is a likely member of the Lillooet Phenomenon. In 1979 we found 18 housepits there with the largest diameter (rim crest) of 14 m, with likely others destroyed by development of a road and an air strip. Ridington and Klassen (Ridington and Klassen 1998; Klassen 2002) report on mitigations efforts after the site was further damaged by the Department of Fisheries and Ocean, who have buildings on the site, and who apparently destroyed surface evidence, at least, of five cultural depressions and damaged others (1998:ii). This site is also a likely Lillooet member. Although the original mitigation effort did not include radiocarbon dating, Ridington and Klassen (1998; Appendix C:237,238) report on two projectile point that are pre-Kamloops, Plateau Horizon, the time of most of the Lillooet phenomenon, supporting such an interpretation. Klassen (2002) reports on later testing and two dates of approximately 2000 BP that are discussed in the dating section.

In short none of the sites tested during the Chilko River survey was suitable for further work for the purposes of discovering more about the period prior to the PPT in this area. This does not seem to be a problem with respect to the main goals of the project as old appearing material was absent on this quadrat survey as well. It looks as if the vast majority of the material falls within the last 2000 years, the period of interest. The Pre-PPT culture history problems are important, but the Eagle Lake project will not make much of a contribution toward them.

Mouth of Chilcotin Testing

In addition to the survey, four minor excavations were carried out in 1974. First, a previously known and collected site (by the O.F.Y. project, Mohs 1973) EkRo 48, had a small housepit tested with five 1 x 1m units (Figures II-9 and 11; Figure 20 main text) revealing a well-preserved floor, with a number of artifacts on it. Two charcoal samples were dated; 870 +/- 80 B.P. (GaK 5326) and 1450 +/- 75 B.P. (GaK 5327), with the latter on the floor. Since two Kamloops side-notched points (Appendix V; Table 3) were found during this excavation, the first date is more apt to be valid for the last occupation of this house. The older date indicates an occupation in the Plateau Horizon (Richards and Rousseau 1987), an occupation that is confirmed by the presence of large barbed points found in MOC collections, including one from EkRo 48 (Matson et al. 1984:169), which are markers of this Horizon.

Two similar units were also placed in a housepit on site EkRo 31 (Quadrat 4-1), but no clear floor was present, and one unit appeared to be highly disturbed, although abundant archaeological material was present (Appendix V:Table 3). The presence of five Kamloops side-notched arrow points, though, indicates occupation in the last 1200 years. The combination of these two minor excavations supports the surface collection indications that the PPT occupation is concentrated in, or at least continues strongly into, the Kamloops

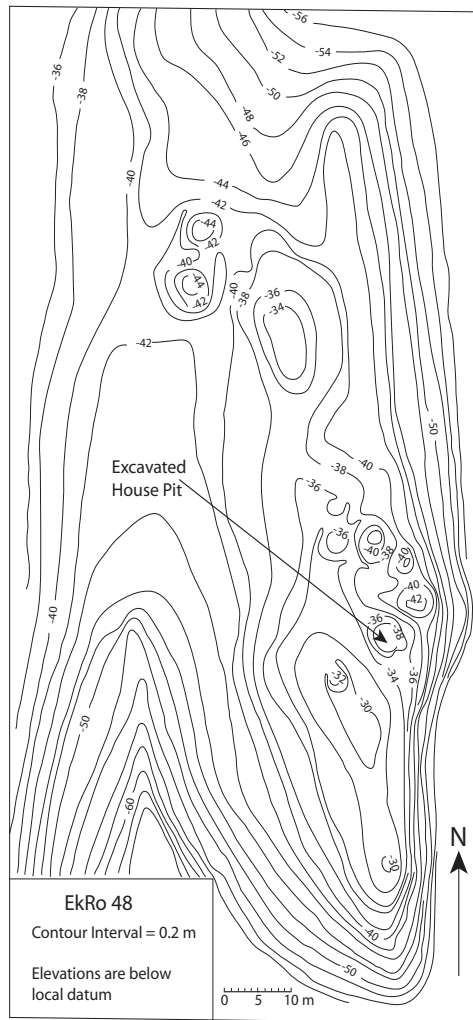


Figure II-9. Contour Map of EkRo 48. (This is repeated in the main text as Figure 20)

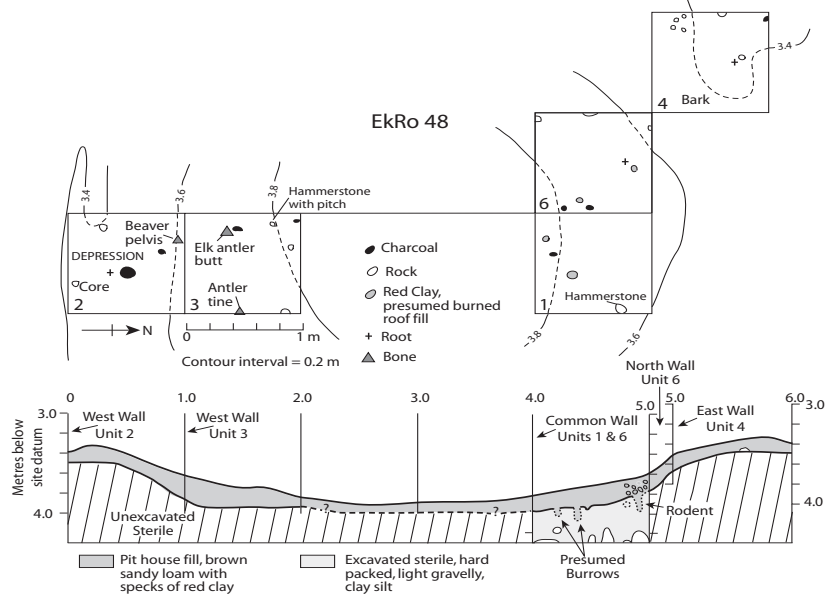


Figure II-10. EkRo 48 Excavation Floor Plan.

culture.

Three 1 meter units were also excavated into site EkRo 18, a site of very large and deep housepits (Figure 21, main text). This is believed to be part of the “Lillooet” Phenomenon, explored by Stryd (1974; Stryd and Lawhead 1978) and Hayden (2000, 2001) in the Lillooet area. This complex in the Lillooet area is very large sites of very large and deep housepits dating between 900 and 1500 years ago (Hayden and Ryder 1991; Lenert 2001). Some sites, even in the Lillooet area, have modest numbers of these very large pithouses (the Bell site in Stryd and Lawhead 1978). EkRo 18 stands out in the MOC as having uniquely large and deep housepits, and we wished to discover if it dated to the same time as similar sites in the Lillooet area. We also had hopes that we may be able to get a dendrochronological cross date with material from Lillooet. Only a modest amount of material was recovered (Appendix V: Table 3), but a radiocarbon date of 1290 ± 80 BP (GaK 5325) did confirm the same time frame. Wood that may be dateable through dendrochronological techniques was also obtained. In the end it was judged that EkRo 18 was the local variant of the Lillooet phenomena.

Potato Mountain Testing Program

The Mountain Fan site (EjSb 39), on a small remnant of a fan at the base of Middle Mountain (Figure II-11), not only had the densest lithic scatter, but also had a number of culture components, and was the only deposit of depth discovered. Some parts of the site (Figure II-12) have no vegetation or soil over the alluvial gravels while, on other areas of the site, grasses, kinnikinnik and small shrubs cover aeolian deposits of more than 40 cm in depth. Lingfield Creek is currently ca. 5 m below the site.

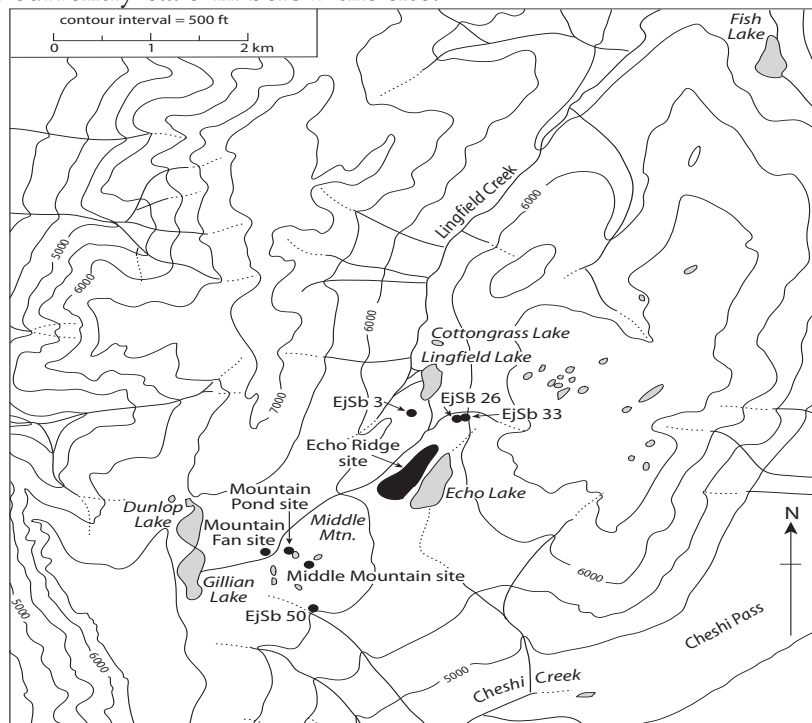


Figure II-11. Locations of Potato Mountain sites.

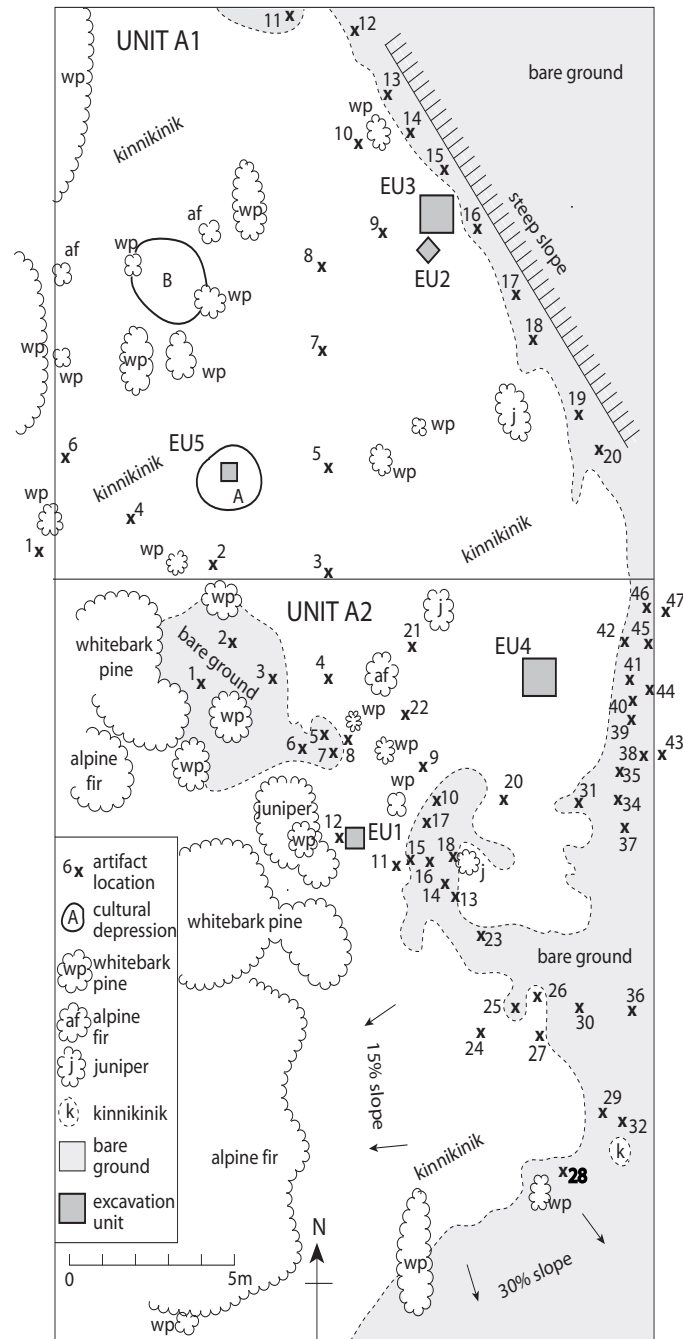


Figure II-12. The Mountain Fan Site (P8-3, EjSb 39).

Five units were excavated at the site. Two 50 cm X 50 cm test units were initially dug at the site to test the depth of the cultural deposits and check the artifact density. These tests revealed three cultural horizons but a generally low artifact density. Since it is the only known stratified site in the study area and since each cultural horizon contained large quantities of charcoal, two additional 1 m X 1 m units were excavated where the soil deposition was greatest. Radiocarbon samples from the two lowest layers produced dates of 960 ± 80 BP (WSU 3374) and 2220 ± 80 BP (WSU 3375), stratigraphically in order.

An additional 50 cm X 50 cm unit was also placed in the center of one of the small depressions on the site which confirmed its identification as a roasting pit. This roasting pit has an accumulation of 27 cm of firecracked rock and charcoal in the center indicating a relatively deep initial pit and the charcoal produced a date of 1680 ± 90 BP (WSU 3380). On the surface it appeared to be a shallow, moderately sized pit with an inner rim diameter of 100 cm and a rim crest to rim crest diameter of 240 cm. Evidence indicates that the pit was lined on the bottom with a rock pavement and the cooking fire constructed in the pit rather than outside.

A total of 426 items were catalogued from the Mountain Fan site: 397 flakes and 27 retouched lithic artifacts; 221 flakes and 20 of the tools from the surface. No points were found at the site, and most (23) of the retouched artifacts were unifacial. The relatively high frequency (6.3%) of retouched artifacts and non-basalt artifacts (6/27) and lack of evidence of primary lithic reduction (only 2 flakes had any cortex) indicate that curated tools were common.

The Mountain Pond Site

This site (EjSb 54 or P8-1 or 84-14, Part 6) is on a mid-slope bench on the west side of Middle Mountain overlooking Lingfield Creek, the Mountain Fan site, and a large, open area to the west (Figure II-11). It is in a Parkland environment with an open area of grassy meadow fringed with stunted alpine fir on the west. A small, shallow melt-water pond is located 23 m to the east. The site consists of a lithic scatter and 18 cultural depressions representing both cache and roasting pits (Figure II-13).

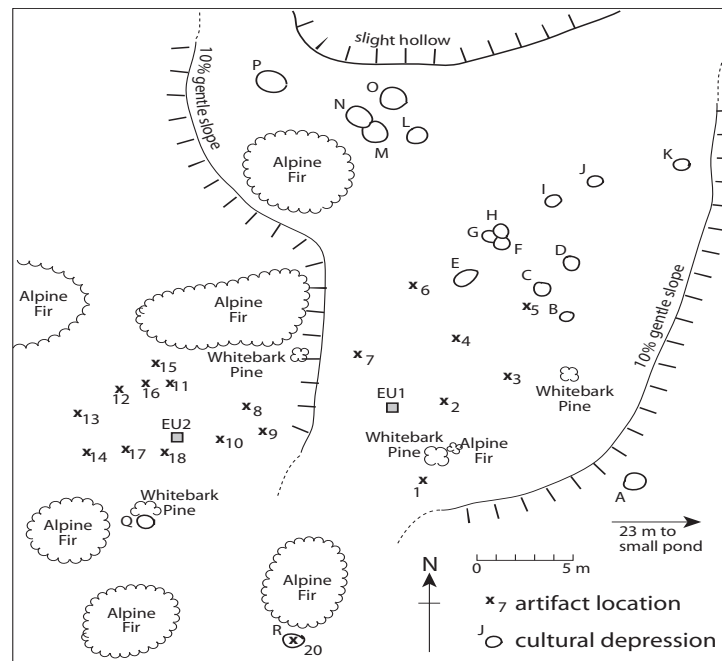


Figure II-13. The Mountain Pond Site (P8-1, EjSb 54).

It is in the area traditionally used by the Redstone band during the historic period and, in fact, a few tin cans were collected from the site indicating a recent occupation. Two 50 cm X 50 cm units were excavated at the site to test the depth of cultural deposits and artifact

densities. These revealed a low artifact density and a thin (ca. 3 cm) cultural deposit over sterile aeolian silts.

Only 317 lithics were recovered from the site. There is little evidence of primary reduction at the site. Only four retouched artifacts and no points were recovered.

Middle Mountain

This site (EjSb 52 or 84-14, Part 4), located at an elevation of 1920 m (6320 ft) is near the top of Middle Mountain at the south end of the Potato Mountain Range (Figure II-11). A large lithic scatter and 12 cache pits were found at the site. The site is in a parkland (alpine-subalpine ecotone) environment consisting of an open area bordered on the north and south by small clusters of stunted alpine fir. In some places the surface is bare of vegetation with weathered bedrock exposed, while in other spots grasses or kinnikinnik are established. There is a small melt-water pond ca. 30 m to the northeast and a good overview of alpine and parkland areas to the south.

Ethnoarchaeological evidence indicates that this area was traditionally used by the Redstone band as well. They camped on Middle Mountain during the late summer while they collected and processed mountain potatoes, hunted and processed deer, and participated in an Indian-only rodeo near Lingfield Lake. An historic camp is present at the south end of the Middle Mountain site with a hearth, possible drying rack, tin cans, and glass.

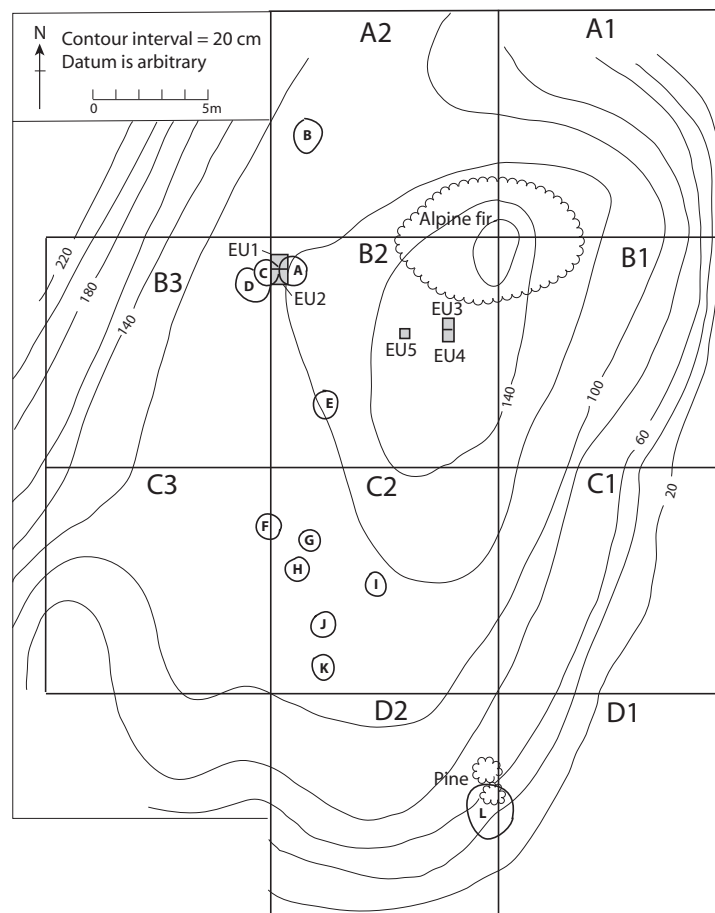


Figure II-14. The Middle Mountain Site (EjSb 52).

In addition to being mapped and surface collected (Figure II-14) five units were excavated on this approximately 27 m X 42 m site. Two adjoining 75 cm X 75 cm units bisected a cache pit, and two adjoining 50 cm X 50 cm units were placed where surface lithic concentrations were high. An additional 1 m X 1 m unit was excavated in a spot with a heavy grass cover. All units revealed ca. 10 cm of cultural deposit underlain by bedrock or glacial till. No charcoal for radiocarbon dating was recovered. A single cache pit (Feature A) was excavated at the site with a 75 cm X 150 cm unit which bisected the pit. No artifacts, firecracked rock, or useful charcoal samples were recovered. Excavations confirmed surfacial impressions of a small, shallow pit. The inner rim diameter is only 70 cm and the depth from the rim crest to the bottom of the pit is only 14 cm.

A total of 1013 items were catalogued from the site including 154 historic artifacts (primarily glass fragments). There is little evidence of primary reduction at the site. Forty-six (5.4%) are retouched artifacts, with a predominance of unifaces (35). The relatively high frequencies of retouched artifacts and non-basalt artifacts indicates high use of curated tools. Four points or point bases were found, all corner- or side-notched points (Figure II-15, l-o) indicating Kamloops horizon (1200 - 1000 B.P.) and Plateau horizon (2400 - 1200 B.P.) occupations.

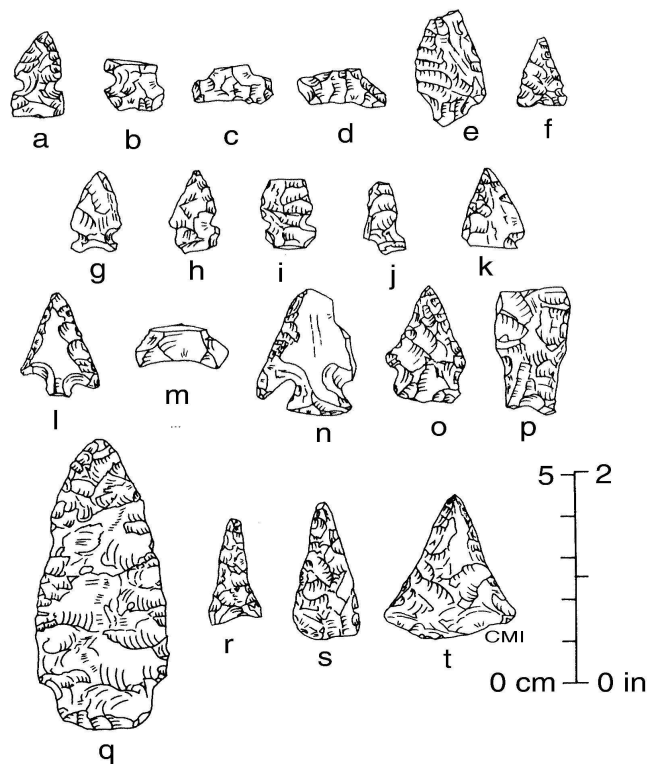


Figure II-15. Potato Mountain Artifacts.

Other Tested Roasting Pits

P2-3 (EjSb 26) is a 'B' site, a member of a class of sites within the forest fringe that typically had only one or two roasting pits in contrast to sites in more open areas which typically had

more roasting pits and included cache pits. Two of the 'B' sites were tested in 1985. P2-3 site is located in the forest ca. 50 m above the open slope to the east of Lingfield Lake (Figure II-11) on a small bench above the high, steep bank of a small unnamed stream. The site consists of two large roasting pits.

Roasting pit A was tested with a 75 cm X 100 cm unit which extended from the center of the pit to the rim crest. The excavation was done in natural layers and all material screened with 1/4 inch mesh. Although no artifacts were recovered, numerous radiocarbon samples were collected, one of which produced a date of 450 +/- 70 B.P. (WSU 3376).

Prior to excavation the pit appeared to be a large (140 cm inner rim) pit but relatively shallow in comparison (27 cm) to its width. Excavation confirmed this impression and revealed a high concentration of firecracked rock (ca. 140 lbs or 57 kg) in the unit. Reuse of the pit after initial abandonment is indicated in the rim profile by the presence of a sterile, light-coloured rim underlain by a thick layer of soil with substantial fire-cracked rock and charcoal.

P2-9 (EjSb 33) is also a type 'B' site located ca. 65 m further up slope from P2-3 (EjSb 26). It also is next to the same small stream and consists of only two large roasting pits. Feature A was excavated in the same manner as Feature A at P2-3. No artifacts were found but one of many radiocarbon samples from the pit was dated to 615 ± 80 BP (WSU 3373). At the ground surface the pit was very large (245 cm inner rim diameter) for Potato Mountain and relatively shallow (31 cm) for its size. A high concentration of firecracked rock (ca. 85 lbs or 39 kg) was found in the unit. A profile, similar to that found at the previous site (Figure II-16) indicates that this pit was also reused.

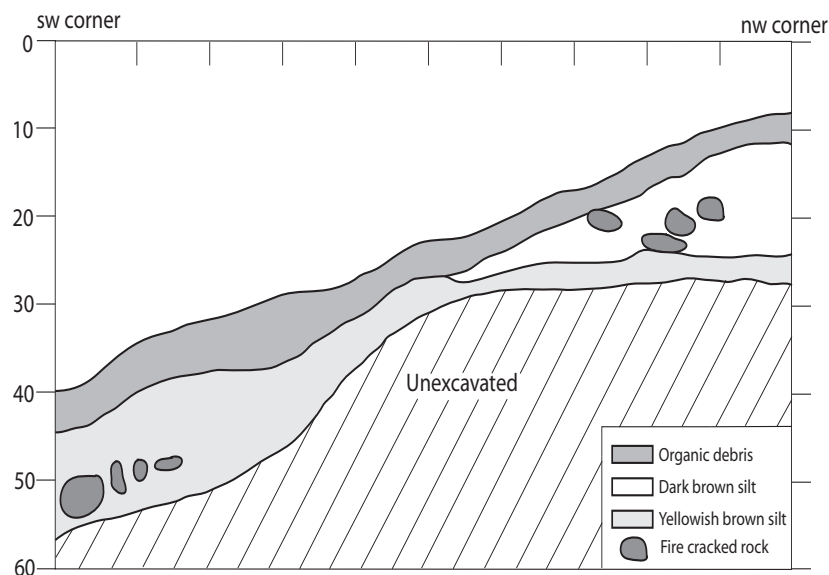


Figure II-16. Profile of Roasting Pit A at P2-9 (EjSb 33).

Echo Ridge (EjSb 12 or P6-1) is a very large site with 342 cultural depressions recorded within the quadrat and many more observed outside, a definite type 'A' site. These depressions are on top of a Parkland Ridge which runs parallel to the west shore of Echo

Lake (Figure II-11).

Three roasting pits and one cache pit were tested at this site. All four pits were excavated in the same way as with the previous two sites. No artifacts were found. Radiocarbon samples were removed from two of the roasting pits providing dates of 1710 ± 90 BP (WSU 3372) and 1910 ± 50 BP (WSU 3381). However, there was not enough charcoal in the other two pits for an adequate sample. Nevertheless, the third roasting pit was also dated with a charcoal sample from a pile of firecracked rock and charcoal adjacent to and, presumably, cleaned from the roasting pit. This date of 100 ± 60 BP (WSU 3378) suggests a recent use for the pit which is in keeping with the shallow soil deposition in the depression. However, it is possible that the charcoal may date a natural forest fire since it was not deeply buried.

The shape and content of the three excavated roasting pits varied considerably. One pit had very little firecracked rock (ca. 30 lbs or 14 kg) and only small flecks of charcoal but was the one with a large concentration of firecracked rock and charcoal beside the pit. The second pit had moderate quantities of firecracked rock (50 lbs or 23 kg) and charcoal (enough to date) but the rock was generally small in size. The third pit contained large quantities of firecracked rock (143 lbs or 69 kg) and charcoal with many very large rocks.

The cache pit at the site contained no charcoal or firecracked rock and only had 13 cm of deposits at the center of the pit. This evidence suggests a relatively recent use of the pit. No firecracked rock was found nearby to indicate its possible use as a roasting pit. Upon excavation, this cache pit was found to have uneroded walls and nearly vertical sides with a rounded bottom, in marked contrast with the more hemispheric shape of most roasting pits.

Radiocarbon dates from six of the roasting pits tested provided dates ranging from 100 ± 60 BP (WSU 3378) to 1910 ± 50 BP (WSU 3381). The high density of sites and pit features agrees with the Chilcotin accounts of the importance of this area. If we extrapolate from our sample to our sampling frame we arrive at a point estimate of about 400 sites, with about 770 roasting pits and 2400 cache pits for the south end of the Potato Mountain alpine zones. Moreover, excavation indicates substantial reuse of the roasting pits, suggesting that this pit estimate is a low estimate for number of root roasting episodes. These large numbers of sites and features, together with the radiocarbon dates indicating that the excavated roasting pits were only in use during the last 2,000 years, point towards a substantial number of people using the area at any one time.

References cited in Appendix II

Alexander, Diana and R.G. Matson

1987 Report on the Potato Mountain Archaeological Project (1985). Report prepared for the Heritage Conservation Branch of B.C. (Permit No. 1985-11), Victoria.

Alexander, Diana, Robert Tyhurst, R.G. Matson, and Linda Burnard

1985 A Preliminary Ethnoarchaeological Investigation of the Potato Mountain Range and the Eagle Lake Area. Report prepared for the Heritage Conservation Branch of B.C. (Permit No. 1984-14), Victoria.

Hayden, Brian (Editor)

2000 *The Ancient Past of Keatley Creek. Volume 1: Taphonomy*. Archaeology Press, Simon Fraser University, Burnaby.

(Editor)

2001 *The Ancient Past of Keatley Creek. Volume 1I: Social Economic Interpretation*. Archaeology Press, Simon Fraser University, Burnaby.

Hayden, Brian and June M. Ryder

1991 Prehistoric Cultural Collapse in the Lillooet Area. *American Antiquity* 56(1):50-65.

Klassen, Michael A.

2002 Chilko Lake Housepit Site (EjSa 11): Archaeological Investigations 2001 (Permit 2001-251). Heritage Resource Centre, Ministry of Community, Aboriginal & Women's Services, Victoria.

Klassen, Michael and Amber Ridington

1998 Chilko River Archaeological Inventory Sample Study: Phase I (1997). Report under Permit 1997-214, Archaeology Branch, Ministry of Small Business, Tourism and Culture, Victoria.

Lenert, Michael

2001 Calibrated Radiocarbon Dates and Culture Change: Implications for Socio-Complexity in the Mid-Fraser Region, British Columbia. *Northwest Anthropological Research Notes* 35(2):211-228.

Magne, M. and R.G. Matson

1982 Identification of "Salish" and "Athapaskan" side-notched projectile points from the Interior Plateau of British Columbia. In *Approaches to Algonquian Archaeology*, edited by M. Hanna and B. Kooyman, pp. 57-79. The University of Calgary Archaeological Association, Calgary.

- 1987 Projectile Point and Lithic Assemblage Ethnicity in Interior British Columbia. In *Ethnicity and Culture*, edited by Réginald Auger, Margaret Glass, Scott MacEachern, and Peter McCartney, pp. 227 -242. The University of Calgary Archaeological Association, Calgary.
- Matson, R.G., L. Ham and D. Bunyan
1984 Prehistoric settlement patterns at the Mouth of the Chilcotin River, B.C. Report to Heritage Conservation Branch, Victoria. Laboratory of Archaeology, University of British Columbia, Vancouver.
- Matson, R.G. and Martin P.R. Magne
2004 Identifying Athapaskans at Eagle Lake, British Columbia. In *Ancient and Historic Lifeways in North America's Rocky Mountains, Proceedings of the 2003 Rocky Mountain Anthropological Conference, Estes Park, Colorado*, pp. 23 - 37. Edited by Robert H. Brunswig and William B. Butler. Department of Anthropology, University of Northern Colorado, Greeley, Colorado.
- Matson, R. G., Martin P. R. Magne, Deanna Ludowicz and D. L. Pokotylo
1980 The Eagle Lake Project: Report on the 1979 Season. Report to Heritage Conservation Branch, Victoria,. Laboratory of Archaeology, University of British Columbia, Vancouver.
- Mohs, Gordon
1973 EkRo 48, A Preliminary Site Report. MS on file, Reading Room, Laboratory of Archaeology, University of British Columbia, Vancouver.
- Richards, Thomas H. and Michael K. Rousseau
1987 *Late Prehistoric Cultural Horizons on the Canadian Plateau*. Dept. of Archaeology Publication No. 16, Simon Fraser University, Burnaby.
- Ridington, Amber and Michael Klassen
1998 Archaeological Site EjSa-11, Chilko River, B.C. Archaeological Impact Assessment. Report on Permit 1997-266, Archaeology Branch, Ministry of Community, Aboriginal & Women's Services, Victoria.
- Stryd, Arnoud
1974 *Lillooet Archaeological Project: 1974 Field Season*. Cariboo College Papers in Archaeology no. 1. Kamloops.
- Stryd, Arnoud and Stephen Lawhead
1978 *Reports of the Lillooet Archaeological Project Number 1. Introduction and setting*. National Museum of Man Mercury Series, Archaeological Survey of Canada 73, Ottawa.

Wilmeth, Roscoe

1977 Pit-house construction and the disturbance of stratified sites.

Canadian Journal of Archaeology 1: 135 - 150.

