

CHAPTER 15

Projectile Points of Central and Northern Interior British Columbia

Martin P.R. Magne[†] and R.G. Matson[‡]

[†]*Parks Canada, Calgary, AB*

[‡]*University of British Columbia, Vancouver, BC*

Introduction

The west-central and northern area of British Columbia is the most under-studied archaeological region in the province. This entire area (Figure 1) is remarkable for not exhibiting even one excavated non-housepit stratified site extending to the middle prehistoric period (Grizzly Run at Mt. Edziza being a possible exception; Fladmark 1985). The relevant chapters in the two volumes of the Handbook of North American Indians, Subarctic (Clark 1981) and Plateau (Pokotylo and Mitchell 1998) map a total of only 30 sites worth discussing for an area that includes about one-half of the province. We extend this review from Mt. Edziza in the north-west corner of British Columbia (Fladmark 1985) to the south-central interior and include Matson's work at the Mouth of the Chilcotin (Matson et al. 1984) and our comparative analyses at Eagle Lake (Matson et al. 1980, Magne and Matson 1982, 1984, 1987, 2004, Matson and Magne 2004, 2007). Our comparisons of the Eagle Lake and Mouth of Chilcotin areas, including Anahim Lake, Punchaw Lake, and other northern plateau sites have revealed significant ethno-linguistic patterns in late prehistoric small side-notched point types and styles.

Overview of Research in the Area

The archaeological chronologies that have been presented for our region of interest are shown in

Figure 2. General overviews of the prehistory of the parts of the Subarctic and Plateau that include this area can also be found in Clark (1981) and Pokotylo and Mitchell (1998). Borden (1952) initiated archaeology in this part of the province with his surveys of the proposed Kenney reservoir and his excavations at the Chinlac and Natalkuz Lake sites. During this project he made the acquaintance of John Sewell, who had collected various sites in the area. The Sewell collection was donated to the University of British Columbia where it has been used as a teaching collection for many years. We discuss the Sewell collection here since it contains several items of special interest. Readers should keep in mind that Jack Sewell was from Saskatchewan, indeed he was once the president of the Saskatchewan Archaeological Society. One could legitimately wonder if some of the points in the Sewell collection were in fact first found in Saskatchewan.

In the mid-1960s Mitchell (1970a, 1970b) undertook survey and excavations on the Chilcotin Plateau, focusing on three sites that in many ways are typical of that region, with shallow deposits, little dateable organic material, and a mixture of points and microblades. His excavations at Poplar Grove, Horn Lake, and Natsadalia Crossing produced nine lanceolates, six stemmed points, five corner-notched points, six side-notched points, and an assortment of fragments. Comparisons at the time were made



Figure 1. Major archaeological sites and surveys in the area considered.

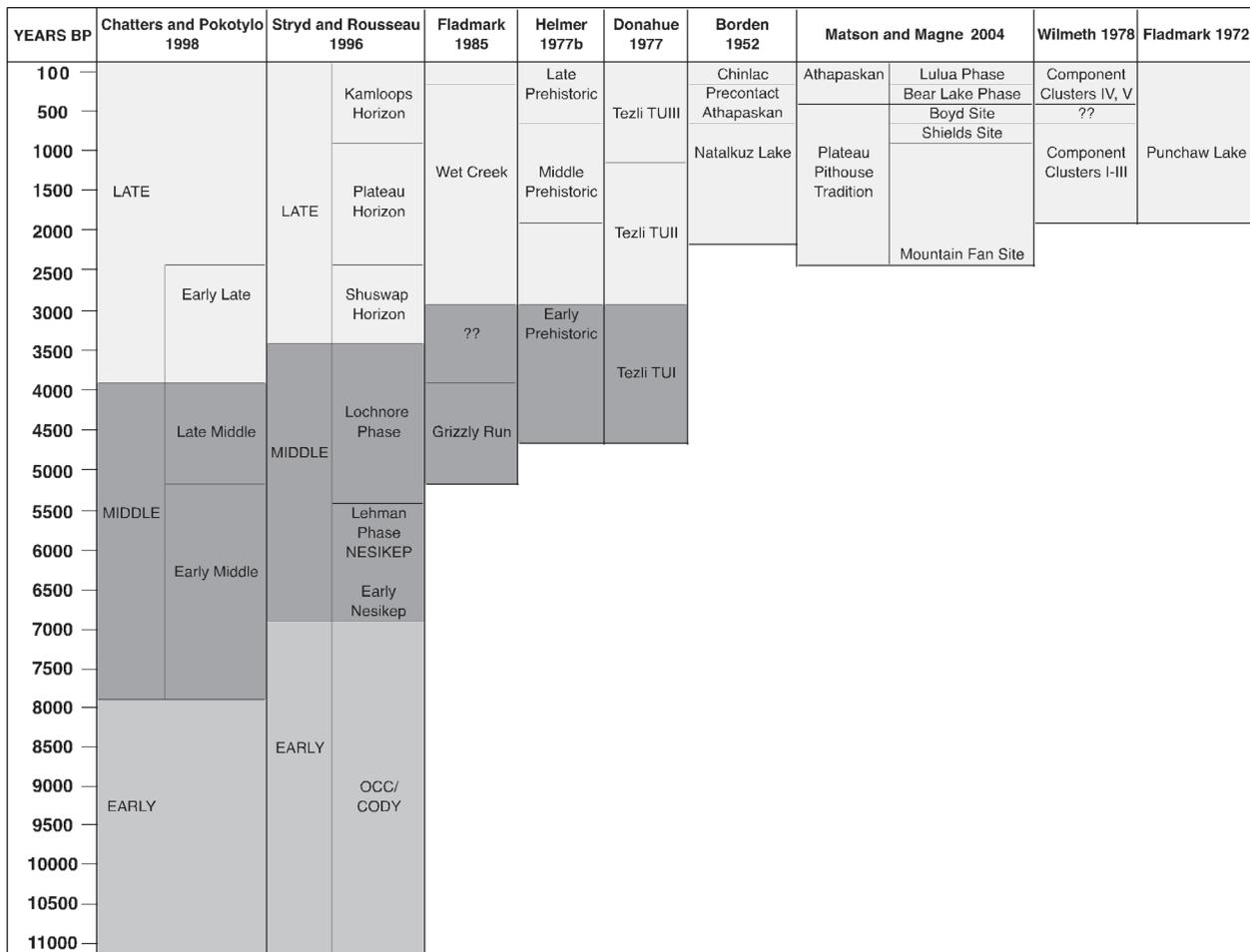


Figure 2. Culture history sequences that have been proposed for central and northern British Columbia.

to Borden's Carrier sites, and to Sanger's (1970) Lochnore-Nesikep work, with estimates that some of the material from Poplar Grove could be as old as 6000 to 3000 BC. These unsatisfactory Poplar Grove age estimates remain today, demonstrating that the early to mid-Holocene time period on the northern Plateau is still extremely poorly known.

Starting with survey work in 1970 along the Dean River and Anahim and Nimpo Lakes, Wilmeth's (1971, 1978, 1979) Plateau work was directed at outlining the history of Athapaskan occupations in the area of Anahim Lake, with the principal goal of understanding the movement of Athapaskan-speakers to the American southwest. This research set valuable groundwork that we expanded upon in later studies in an area further south, in which side-notched projectile point styles figure prominently, as discussed later in this paper (Magne and Matson 1982, 1984, 1987; Matson et al. 1980; Matson and Magne 2007). In his earlier papers, Wilmeth also

relied heavily on Sanger's (1970) chronologies, with explicit due caution given the distances involved and the often small assemblages involved in making comparisons (Wilmeth 1971).

James Helmer offered a comprehensive culture history overview of the central portion of the area in which we are interested in 1977 (Helmer 1977a), based on surveys he did in the Blackwater River area, and with reference to excavations he did at Punchaw Lake with Susan Montgomery and Knut Fladmark (see Fladmark 1976, Helmer 1977b, Montgomery 1978). Helmer's (1977a, 1977b) descriptions of the culture history of the northern plateau area produced a chronology spanning only 5000 years, but his basic scheme would not be much altered today. His "Early Prehistoric" starts at 3000 BC to AD 1, with diagnostics including leaf-shaped points, corner-notched points, stemmed points, excurvate blade, concave base points, and microblades. Helmer's "Middle Prehistoric" spans AD 1 to AD 1300,

and includes varieties of corner-notched and large side-notched points. His “Late Prehistoric” includes small side-notched points and varieties of corner-notched points. In this same region, Brandon and Irvine (1979) recovered a variety of points and microblades from disturbed contexts and test excavations at a salvage investigation at the Pantage Creek site (FhRs 35), southwest of Punchaw Lake, which adds to the data that were available to Helmer.

Donahue’s (n.d.) examination of surface collections and his excavations at Tezli (Donahue 1977) and Ulgatcho (Donahue 1973) are important contributions to northern Plateau prehistory. Unfortunately Donahue’s classificatory schemes are idiosyncratic and difficult to apply in a comparative manner without examination of photographs. Two of the earliest dates in our area are from Tezli, a pithouse site, and Punchaw Lake. The date of 3980 ± 100 BP (GaK 4907) from Punchaw Lake (Fladmark 1976) is associated with a burial underneath one of the “house platforms” found there, and the date of 3850 ± 140 BP (S-769) from Tezli is from a layer in the bench area of a house pit truncated by the pit (Donahue 1977:132). If either of these dates are actually coeval with house structures they would be among the oldest found on the Canadian Plateau, although older housepit dates occur on the Columbia Plateau (Ames 1998, Campbell 1985).

Fladmark’s (1985) surveys and excavations in the Mount Edziza area are the most northern materials we examine. Extensive surveys of the Stikine River northwest of Mt. Edziza for a then-anticipated hydroelectric development uncovered a single stratified, late prehistoric site and a few other shallow sites but none of any apparent age (Aresco Ltd. 1982, Magne 1982). MacNeish’s (1960) Callison site just south of the Yukon border is unfortunately undated and relates more closely to Yukon archaeology, so we do not discuss that assemblage here.

Work on the upper Skeena River, in the interior at Hagwilget Canyon (Ames 1979), and at Moricetown (Traces 2005), has yielded materials dating back to about 4700 BP. The sites here may be related more closely to sequences further down river, such as at Gitaus and Kitselas. We will look at the Moricetown-Hagwilget area but those important sites further west are definitely in the coastal B.C. culture area and as such do not fit here.

Interior Plateau settlement pattern research had its start with Matson’s 1974 project at the Mouth

of the Chilcotin (Ham 1975; Matson et al. 1984), which spawned the Eagle Lake Project and associated surveys in the western Chilcotin region from 1979 through 1985 (Alexander and Matson 1985, Alexander et al. 1987; Magne 1984, 1985; Magne and Matson 1984; Matson and Magne 2007; Matson et al. 1980).

Cultural chronologies that have been proposed for the Interior Plateau are shown in Figure 2. Chatters and Pokotylo (1998) and Stryd and Rousseau (1996) extend occupations to 11,000 BP, but in fact we have no well-dated archaeological sites before about 7000 BP, the Gore Creek skeleton at 8250 ± 115 BP (S-1737; Cybulski et al. 1981) being the exception. The Nesikep Creek and Lehman sites that Sanger (1970) reported are the best known examples of the well known “early” period, and represent pre-house-pit settlement patterns. By other western North American standards, however, the points of the Early Nesikep are actually early Middle Period or Early Archaic types. Chatters and Pokotylo (1998) prefer a more generic style of chronology, one beginning with an Early Period from 11,000 to 8000 BP, a Middle Period from 8000 to 4000 BP that is subdivided into Early and Late Middle periods, then a Late Period from 4000 BP that has an Early Late division from 4000 to 2500 BP.

Fladmark’s (1985) Mt. Edziza chronology extends to about 5000 BP, even though Smith (1971, 1974) had proposed occupations extending to about 10,000 BP based on obsidian hydration dates. Stryd and Rousseau’s (1996) chronology begins at about 11,000 BP, with the Early Period extending to about 7000 BP, a Middle Period to 3500 BP, then a Late Period. Their Lochnore Phase at about 5500 BP to 3500 BP is the period in which housepit occupations begin and by the time of the Shuswap Horizon (*ca.* 3500 BP), many, perhaps, most, Plateau peoples appear to be living in housepit villages. To the north the cultures are not as well known. Borden’s 1952 pioneering work in the northern interior identified the Natalkuz Lake site, which was occupied from about 2400 BP to late precontact times, followed by the Chinlac site’s protohistoric occupation. Helmer’s chronology (1977a) as discussed above begins at 5000 and extends to Late Prehistoric period, but dates for the early period are very few. In the Eagle Lake, Taseko Lakes, and nearby Potato Mountain regions, Matson and Magne (2007) and Alexander and Matson (1987) have identified a securely dated

Table 1. Frequencies of projectile points in collections and reports examined.

Point Type	Period	Donahue Survey	Tezli	Sewell	Chinlac	Nataalkuz Lake	Mount Edziza	Potato Mtn	Punchaw Lake	Eagle Lake	Mouth of Chilcotin	Williams Lake	Hagwilget/Moricetown	Pantage Creek	Total
Agate Basin	Early			3											3
Alberta	Early	1													1
Cascade	Early	9		7									6		22
Lochnore-Lehman	Early	2	3												5
Plainview	Early	2		1									2		5
Scottsbluff	Early	1													1
Skeena	Early	14	2	11		3	1		6				4		41
Corner-notched	Middle	11	8	13	2	1		3	19	4	12	8	2	2	85
McKean Complex	Middle	6	8	6					7						27
Medium/Large Side-notched	Middle	3	15	6			8		7		3		3		45
Plateau Corner-Notched	Middle	3	14	4				1			6				28
Stemmed	Middle?	13	10	9	54		2		10		1		8	1	108
Kavik	Late	3		1	16					4			1		25
Small Side-Notched	Late	4	5					10	30	31	33	3	5	1	122
Athapaskan Side-Notched	Late	1	18		14					8			6		47
Lanceolate	Unknown	16	1	8			6		11			2	26	19	89

Plateau Pithouse Tradition from about 2500 BP to about 600 BP, followed by the Athapaskan Tradition. Wilmeth's chronology at Anahim Lake characterizes his Component Clusters I, II and III as pre-Athapaskan Plateau Pithouse Traditions occupations, from 2000 BP to about 1000 BP, with a short gap, then Athapaskan occupations in Component Clusters IV and V beginning at about 600 BP.

To help organize the discussion, we have tabulated projectile point types for the principal sites and regional investigations within central and northwestern British Columbia (Table 1), and we have also summarized the types for the region as a whole (Table 2, Figure 3). We will use Stryd and Rousseau's (1996) general three-part outline, essentially a modification of Sanger's (1970) chronology, to organize the discussion as a whole. Table 1 and Figure 3 we take to be representative of the projectile points that have been found to

Table 2. Summary table of projectile points observed in collections and reports examined.

Point Type	Period	Total
Agate Basin	Early	3
Alberta	Early	1
Cascade	Early	22
Lochnore- Lehman	Early	5
Plainview	Early	5
Scottsbluff	Early	1
Corner-notched	Middle	85
McKean Complex	Middle	27
Medium/Large Side-notched	Middle	45
Plateau Corner-Notched	Middle	28
Skeena	Middle	41
Small Side-Notched	Late	122
Athapaskan Side-Notched	Late	47
Kavik	Late	25

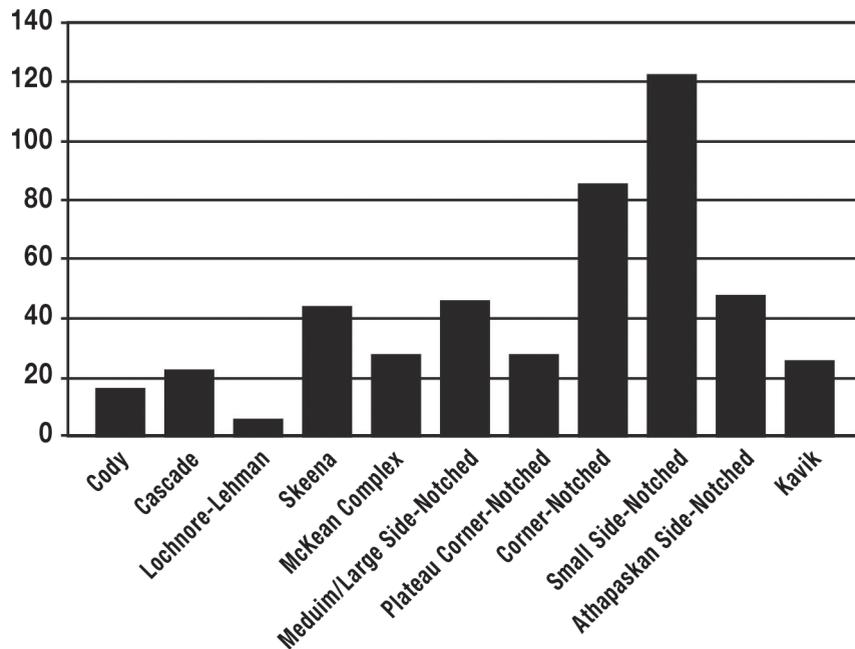


Figure 3. Projectile point frequencies for collections and reports examined.

date in this large area even though we know we have not exhausted the literature, particularly the many resource management reports produced in the more than 50 years since Borden surveyed the areas impounded by the Kemano dam. Even if double or triple this number of points are known, that is miniscule by most North American standards for the size of area under consideration, and it speaks to the vast amount of knowledge yet to be gained here.

Early Prehistoric Period (ca. 11,000 BP to ca. 7000 BP)

There are no excavated Early Period points from the area. The Sewell Collection (Figure 4) contains one possible Plainview and three possible Agate Basin points, while Donahue's (n.d.) examination of private collections documented two possible Plainview, one Scottsbluff, and one Alberta point. The possible Agate Basin items in the Sewell Collection are resharpened; a trait that seems common on the Plains as well, but they may also be resharpened McKean points. These Sewell Collection points are disputable given Sewell's Saskatchewan background as noted above. Wilmeth (1978:89) illustrates a concave-based point that he compares to the Pryor Stemmed type on the Plains, but in our view this rather crude

point fragment is not similar to that type at all. Wilmeth (1978) also discusses a possible Agate Basin base that is not comparable because of breakage.

Lanceolate bifaces are common on the northern Plateau, and while many are similar to Cascade points, it is also true that lanceolate bifaces occur in all time periods and are thus difficult to attribute to any particular period when found in surface contexts. Inglis (1977:29) reports a beautiful lanceolate point in a private collection from South Hazelton that may be one of the lanceolate "Skeena" points found towards the coast that we discuss below. Faced with a find of a lanceolate point from an intertidal context on Haida Gwaii, Acheson (1995) offers a reasoned discussion that concludes that such points cannot be definitely temporally diagnostic in undated contexts, unless they truly dominate an assemblage. A sample of lanceolates from Sewell's collection is shown in Figure 5. In the absence of detailed analyses of actual specimens, the predominance of lanceolate bifaces in the published and unpublished literature for central and northern British Columbia confuses attempts to categorize assemblages that contain lanceolates. This is because lanceolate forms are seen to be characteristic of early and middle prehistoric cultures in areas to the north (Northern Cordilleran, Northern Plano, Taltheilei), to the south (Old Cordilleran), and to the west (Skeena Complex; Allaire 1979) of



Figure 4. Early and Middle prehistoric points from the Sewell collection.

our area of study here. It may be that lanceolates are a hallmark of all cultures spanning a temporal range of about 9000 to 4000 BP in northwestern North America. As Fladmark (1982: 128) indicates, lanceolate points in the British Columbia interior may relate to Cascade Phase sites of the Old Cordilleran of the Columbia Plateau, but “classic” Cascade points may be rare. See also Roll and Hackenberger (1998:126) for a discussion of the same problem in the southeastern Plateau.

Similarly, stemmed points are difficult to assign temporally, although many are likely from late Early or early Middle periods. They occur in various forms, including some approaching Windust (concave stem), contracting stem (such as Lind Coulee points) and expanding stem. Windust and Lind Coulee points from the southern Plateau areas of Washington and Idaho are, however, very clearly Early period styles (including many from excavated and dated sites) and without very good examples (or excavations) in central British Columbia our preference is to not assign any of the surface collection materials to those categories. Furthermore, stemmed points are frequent on the Central Northwest Coast during 5000–3000 BP (Matson and Coupland 1995:97–198) so that they span a very long range in neighbouring areas. In Sanger’s scheme, stemmed points (his Group 14) are found throughout most of the sequence although they are concentrated in the last 3000 years (Sanger 1970:47). Sewell’s collection has nine stemmed

points; Donahue’s has quite a number of stemmed points (13), with another 10 from Tezli. The Punchaw Lake excavations produced 10 stemmed points.

The thin, extremely well made Early Nesikep points from the southern areas of the Canadian Plateau (Sanger 1970, Stryd and Rousseau 1996:192) appear to be absent from the northern Plateau. Documenting Early Nesikep Tradition or Windust Phase points in northern B.C. would be beneficial for understanding if the Early Nesikep Tradition with its microblades came in from the north or from the south.

Overall we are fairly confident of the Scottsbluff and Plainview points that have been found simply because those conform very closely to the type specimens from the Plains area (see Frison 1978, Hoffman and Graham 1998). Clovis and Folsom appear to be absent. The Agate Basin and Alberta points are marginal classifications and we have less confidence in those, simply because these do not appear to be not so well made (although they are equal to some on the Plains), and because of the wide range of lanceolate and stemmed point forms that are found throughout the area.

Middle Prehistoric Period (ca. 7000 BP to ca. 3500 BP)

Middle Period points are common from excavations and collections in the area. Many of the points have the general characteristics of the basally indented McKean-Duncan-Hanna series of the northern plains (Mulloy 1954; Wheeler 1954). Frison (1998) and others group these three point types into the McKean complex, dating from about 4900 to 3200 BP (Frison 1998:163). Richards and Rousseau (1987) and Rousseau (2004) report that points of this style are found in the Shuswap Horizon (3500–2400 BP) of the Plateau Pithouse Tradition. Thus there is some consistency in the dating, although this style may continue later on the Plateau.

Prentiss and Kuijt (2004:58) share this view that these similarities are in need further investigation, as do Ball and Magne (n.d.). Other Middle Period points are typical of the Nesikep tradition and the Lochnore Phase of more southern areas of the Plateau. Stemmed points and large to medium-sized, side-notched points are also common. Large side-notched points in forms that we see on the northern Plateau also appear on the northern plains



Figure 5. Lanceolate points from the Sewell collection.

during the late Early prehistoric and Middle prehistoric periods, in what is known as the Mummy Cave complex (Reeves 1969). Walker (1992) was able to use multivariate classification techniques to define five distinct types of these early side-notched points, ranging in age from about 8000 BP to about 5000 BP, from Colorado to Alberta and Saskatchewan (see also Dyck and Morlan 2001). Once more dated assemblages are available on the northern Plateau, an exercise to compare this area to the northern Plains would be worthwhile.

Some Lochnore Phase points (5000–3500 BP; Rousseau 2004) bear a strong resemblance to Acasta points from the western Northwest Territories or central District of Mackenzie (Noble 1981: p. 99, Fig. 2 c, e): lanceolate forms with wide, shallow side-notches and contracting stems. In the north, these are said to occur in association with Agate Basin-like points, as part of the Acasta Lake Complex (*ca.* 7000 BP) within the Northern Plano Tradition. Gotthardt (1990)

cautiously extends the similarity of the Acasta Lake Complex to the Rock River area of northern Yukon.

Sewell's collection contains six McKean Complex points (Figure 4), four "Plateau" corner-notched points, 13 other corner-notched points, and six medium to large side-notched points. Many of these look similar to points found at Lochnore-Nesikep. Donahue's collection includes six McKean Complex points (Figure 6), 11 corner-notched (Figure 7), three Plateau corner-notched, and three medium to large side-notched points. Donahue wrote at the time (1977) that one of the latter with a wide, ovoid blade is similar to Archaic points from Ohio, and that a very large one is similar to middle prehistoric styles from the northern Plains; we see no reason to challenge his views on those at this time.

Many of the "Plateau" corner-notched styles are reminiscent of the Plains Pelican Lake style with its sharp corner-notches, often with shallow notches, although the Plateau styles have a wider, more cur-

vate blade, and often have very long barbs ending parallel with the base. Furthermore, many of the remaining corner-notched points are very similar to Plains Besant styles (see Reeves 1983), a similarity noted by Donahue some time ago (1977:180). In Alberta the Besant phase dates to approximately 2000–1150 BP (Vickers 1986:81).

Donahue’s Tezli site is the best-recorded site we have from the Middle Prehistoric period. Donahue grouped the Tezli dates into three temporal units to control for housepit mixing processes: TU I: 2400–800 BC, TU II: 800 BC–AD 750, TU III: AD 1200–Historic. Converting these into years BP using 1950 as the terminal date yields: TU I: 3950–2750 BP; TU II: 2750–1200 BP; TU III: 750–0 BP. This complex housepit site produced a large variety of points, dominated by small side-notched, large side-notched and corner-notched types. Overall at Tezli the small side-notched points are more common after 1500 BP, while corner-notched styles post-date 4000 BP. Donahue’s Type 4, resembling Besant points, and Sanger’s Group 7 (1970: 39) are most common in his Temporal Units 1 and 2, dating from

3950–1200 BP, and since several appear in contexts older than what is seen on the Plains, he suggests a west to east “trajectory” for the style (Donahue 1977: 180). Three points resembling Lochnore points, Donahue’s Group 40, occur at Tezli in TUs II and III but not in TU I. TUs II and III also contain the bulk of the corner-notched points, especially TU III, which he considers an anomalous situation (Donahue 1977: 191). One McKean-like point (Group 12) was found in the early levels of Tezli, dating to *ca.* 4450–3450 BP (Donahue 1977: 184).

Looking to the northwest portion of our area of interest, we find good evidence of two pre-arrow point types with possibilities of a third, all more closely connected with areas further north than to the Plateau tradition, and none of clear antiquity greater than 5000 years. The best case is for the straight base lanceolate type from Edziza (Figure 8: e); Fladmark 1985: Fig. 1: e, p, g), and another from Natalkuz Lake (Borden 1952: Fig. 1: 18). The general characteristics are clear in Fladmark’s (1985) illustrations, with well-made points ranging from parallel sided to rounded sides, usually from 60 to 80 mm in length, and with straight, to slightly concave bases. This point style appears to be present from southwestern Yukon to Natalkuz Lake and along the Skeena River. Note that similar points are found in the Sewell Collection (Figure 5). Points much like these are also found in the earliest deposits in Prince Rupert harbour area. This point style is also found in only the lowest levels at Tezli, TU I (3950–2750 BP). Donahue (1977: 189–190) compared the style to those at Gitaus and Hagwilget, recognizing the earlier contexts at those sites.

Workman (1978) has this point style as being part of his Taye Lake culture, extending from about 4500 to 1300 BP, and he names the concave base variant, the “Whitehorse” point style. Fladmark found several of these at Edziza, including one (1985, Fig. 72, e) in the early component at Grizzly Run, which is the component without microblades and which has a radiocarbon date of 3910 ± 120 BP (SFU 127) associated with it. This point type is associated with the Skeena Culture on the upper reaches of the Skeena River, at the Gitaus site in Kitselas Canyon (Allaire 1979) and further upstream at Hagwilget Canyon (Ames 1979). The Skeena Culture is dated at circa 3600 to 3200 BP by Coupland (1988) on the basis of dates for preceding and later cultures. In none of these associations is this point type associated with

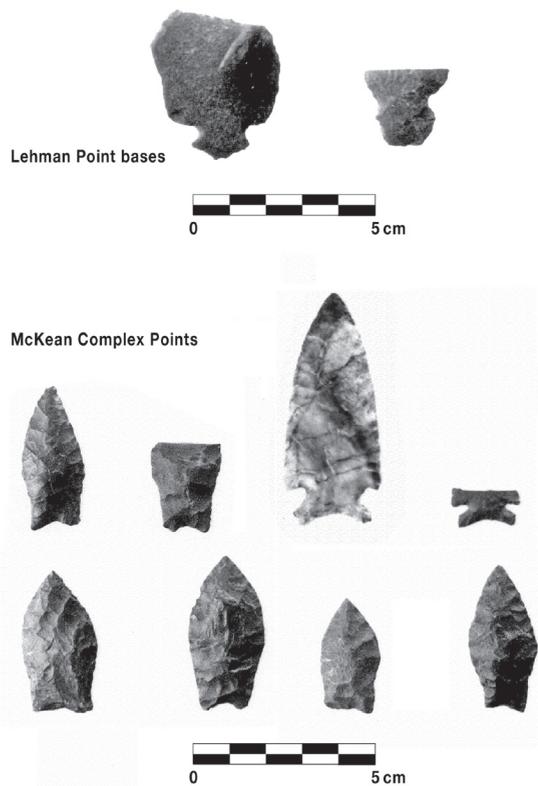


Figure 6. Lehman and McKean Complex points from Tezli. Photos courtesy of Paul Donahue.

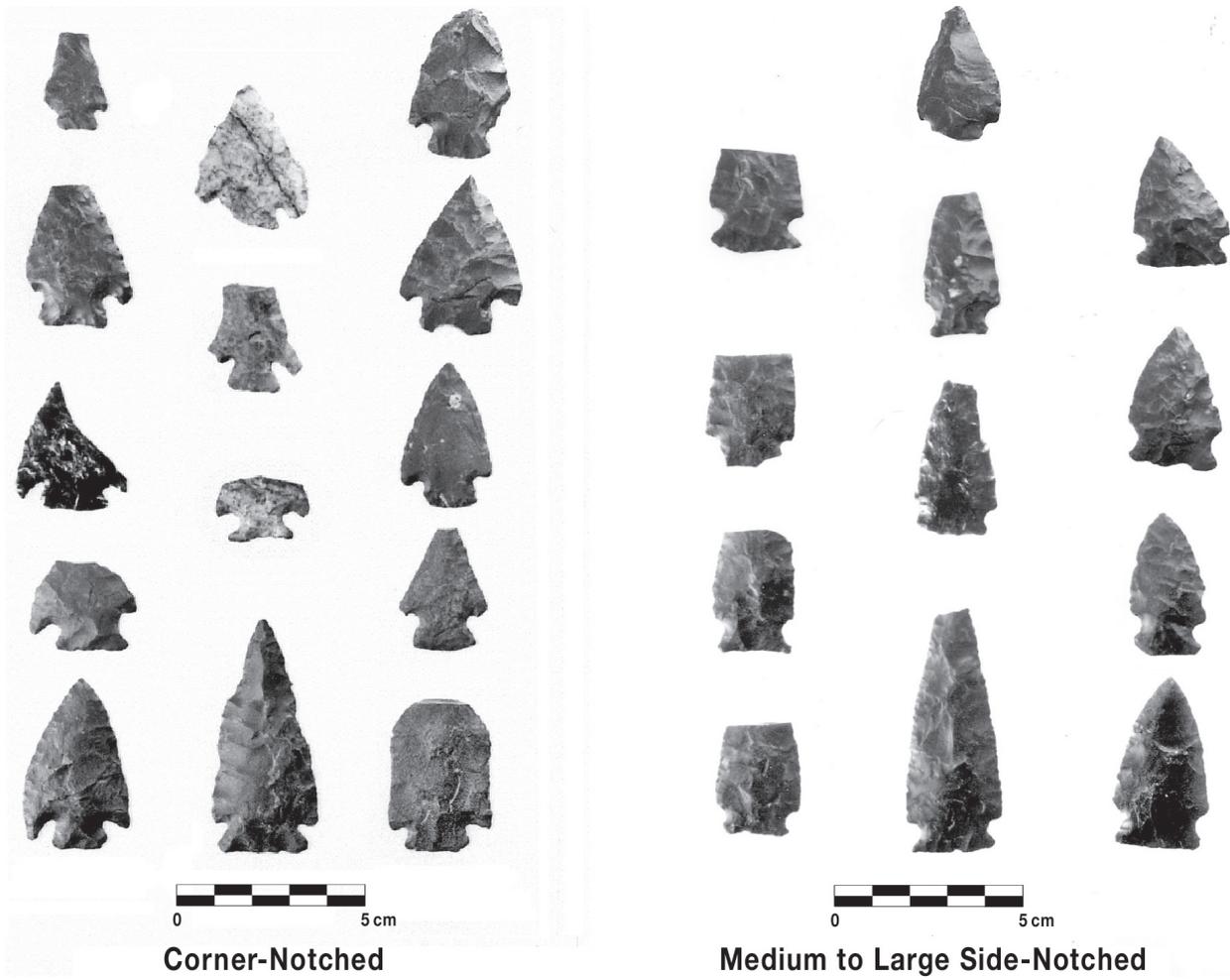


Figure 7. Corner-notched and medium to large side-notched points from Tezli. Photos courtesy of Paul Donahue.

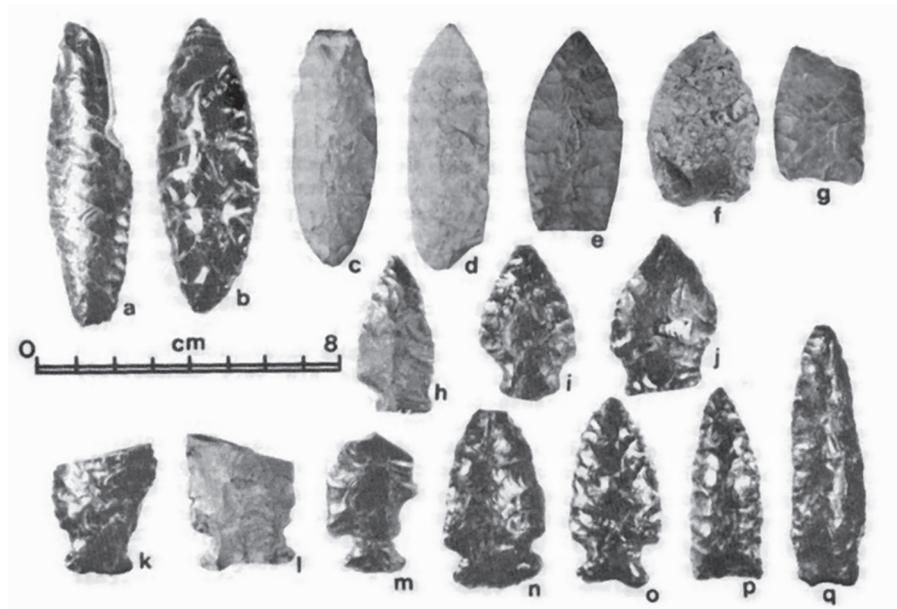


Figure 8. Points recovered from Mt. Edziza. Excavations at Grizzly Run site yielded item e. From Fladmark 1985: 152, Figure 72. Reproduced with permission.

microblades. Workman (1978) believes the Taye Lake culture is post-microblade, but admits that the situation may be that microblades sometimes occur. The Natalkuz Lake specimen may also be associated with microblades and is associated with a radiocarbon date of 2415 ± 160 BP (S-4) that is somewhat dubious as it was produced very early in the history of radiocarbon dating. Carlson (personal communication 2006) sees no reason to dispute this date, however, and he also obtained a second, unpublished date of 1950 ± 120 (SFU 71). The Natalkuz Lake site dates would therefore average out at about 2182 BP.

In summary this lanceolate point dates from more than 4000 years ago to perhaps around 2000 years ago, and has close ties to similar points to the north and not to the Plateau. Because it is similar to knives and other leaf shaped bifaces, it is not completely distinctive in shape and therefore may not be very useful as an index type. For future reference, however, it may yet prove to be an important type when found in the absence of other point types.

Also found in the Taye Lake culture are large, broad side-notched points, such as at Mount Edziza (Figure 8; Fladmark 1985, Fig. 72, k–o). The ones found by Fladmark range from 50 to 70 mm in length (although only one at 50 mm in length was complete.) Unfortunately, none of these were present in dated contexts at Mount Edziza, but Fladmark argues that they are probably associated with a post-microblade culture and therefore later than the 4800 BP date for the early microblade component at Grizzly Run. In short, the same general dates as for the first point type, and indeed, similar points are present in the Taye Lake culture, indicating a similar date range. These points are not found towards the coast (with one possible exception at Hagwilget Canyon), indicating a different distribution.

None of the points found by Fladmark had ground bases (one did, but the grinding also extended down the edge, indicating perhaps use wear), and they are not very well made, two characteristics shared by points of the Taye Lake culture and not with the earlier Lochnore–Nesikep assemblages. Furthermore, the other points associated with side-notched points in the early Lochnore–Nesikep culture have not yet been found in our region of interest, again showing a closer connection at this time with places further north. The medium to large side-notched points (Group 4; Figure 7) found at Tezli appear to overlap with this point type as do Group 7 at Lochnore–

Nesikep (Sanger 1970) as neither has ground stems. There is also a general agreement about the dating of this general point style in all three areas.

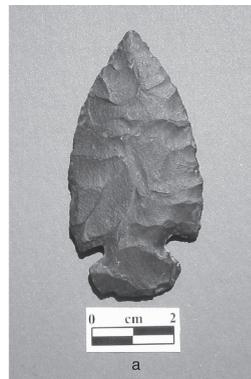
Large side-notched points in general have a very wide distribution in western North American ranging in dates from 8000 to 1200 BP and the full range of these dates may be possible for them in northwestern B.C. We agree with Fladmark, though, about the most likely dates being less than 5000 BP and (implicitly) with the ending dates less clear, although these are clearly not arrow points (although they could be hafted as knives.) If we put all the dating information together for these three areas, we get a range of 4000–1200 BP, with the ending date being more questionable. Unlike the lanceolate points, though, these are an easily recognized style, unlike the possible third style that we turn to next.

Associated with the lanceolate points, in the Taye Lake culture, at Mt. Edziza (Figure 8; Fladmark 1985: Fig. 72, a–d) and on the Skeena River, are large leaf-shaped bifaces. These do not appear to be very distinct and overlap with preforms, particularly on the Skeena River. These seem to be most abundant in the Skeena culture at Gitau and Hagwilget Canyon. They appear to be next most abundant at Mt. Edziza and only marginally present in the Taye Lake culture. Is this also a useful culture-historic type? Given our earlier discussion about leaf-shaped or lanceolate points one wonders. Outside of the Skeena culture this remains to be demonstrated, but it certainly may turn out to be.

Borden's Natalkuz Lake site remains an enigma. It is an unusual house with a large central, depressed firepit, dated to about 2400–1900 BP, and the corner-notched point found there is unusual as is a large blade industry. This assemblage also contains microblades.

During a forest recreation area survey, a very nice Lehman Phase point was surface collected from site FdRr 1 (McNeney 2006). Shown here in Figure 9: a, this point is very similar to that pictured by Stryd and Rousseau (1996: 194, Figure 15: a). Stryd and Rousseau (1996: 189–191) propose that the Lehman Phase lasted from *ca.* 6000 BP to *ca.* 4500 BP, and that it was a direct development from the Early Nesikep Tradition of the mid-Fraser and Thompson Rivers area.

Site GgSt 2 at Moricetown is an important location that has been recently impacted by construction, yielding some 30 projectile points in addition to decorated bone and carved stone artifacts



Lehman Point from FdRr 1



Shuswap Phase points from FfRs 55

Figure 9. Early and Middle Period points recently recovered from central British Columbia. Photos courtesy of Ty Heffner.

(Budhwa 2005: 40; Traces 2005). Very few of these were professionally recovered, but previous work indicated that occupations extended back as far as 4700 to 5660 BP (Albright 1987, cited in Budhwa 2005: 23). Among the points found there are a series of lanceolates, including four of the straight-based form, and some half-dozen small side-notched points of the Athapaskan type we discuss below.

The early Middle Prehistoric Period appears to be the first substantial occupation of this part of the province. Projectile points share stylistic similarities across a very broad area of the northwest, from the northern plains across the southern and northern interior plateau. A certain straight-based lanceolate form, which we call here the “Skeena” type, may be distinctive, and further finds in controlled situations would be of benefit.

Late Prehistoric Period (ca. 3500 BP to ca. 100 BP)

In recent excavations at housepit site FfRs 55 southwest of Prince George, Heffner (2005a) excavated

three points thought to date on typological grounds to about 3500 BP. Heffner compares Item c in Figure 9 to Shuswap Point Type 3 of Richards and Rousseau (1987: 25), and it definitely compares well to Sanger’s Group 3 projectile points (Sanger 1970: 40, Figure 20: l, m), occurring in Sanger’s Middle Period, 5000 to 2000 BP. Item b in Figure 9 may be a preform of the same type, and Heffner compares item d in Figure 9 to Shuswap Point Type 7 (Richards and Rousseau 1987: 25), and we see a strong similarity there to Sanger’s Type 14 projectile points (Sanger 1970: 43, Figure 22: n). At the same site, Heffner (2005: 57, Plate 4.9) found two corner-notched points that appear to be Plateau Horizon points, one from a housepit context but with no date, the other from a shovel test with a shallow stratigraphic context that he suggests would be on the order of 200–600 BP despite the appearance of the point.

Whitlam’s (1976) mitigative excavations at EIRn 3 and FaRn 3 near Williams Lake seem to be typical of central Plateau housepit assemblages, with a “Kamloops” small multi-notched point, two other small side-notched points, and eight corner-notched points. These housepit assemblages yielded mean corrected ¹⁴C dates ranging from 1762 ± 58 BP (GaK 4011) to 1180 ± 58 BP (GaK 4321). A small contracting stem point could be a Kavik type.

Donahue’s surface collection report contains at least six Kavik points, Sewell’s at least one, and Wilmeth’s excavations at Anahim Lake produced a small number of small stemmed and corner-notched points, all from late prehistoric or protohistoric contexts. These include four Kavik points from the Potlatch site (Figure 11). Chinlac has between 16 and 70 Kavik points, depending on one’s definition (Cranny 1986), Tezli has one or two Kavik points, and Ulgatcho (Donahue 1973) has at least five (Figure 11). The Bear Lake Athapaskan Lodge near Eagle Lake produced a Kavik point, and the Brittany Creek site further down the Chilko River yielded yet another (Figure 11; Matson and Magne 2007, Matson and Pokotylo 1998, see also Pokotylo and Mitchell 1998: 91, Figure 8).

At Tezli, small side-notched points only appear in TU III, after about 750 BP (Donahue 1977: 188). Tezli produced some 23 small side-notched points (Figure 10), 18 of which we would consider to be the “Athapaskan style” we discuss below.

The Eagle Lake Project (Matson et al. 1980, Magne and Matson 1984, Matson and Magne



Figure 10. Small Side-notched points from Tezli.
Photos courtesy of Paul Donahue.

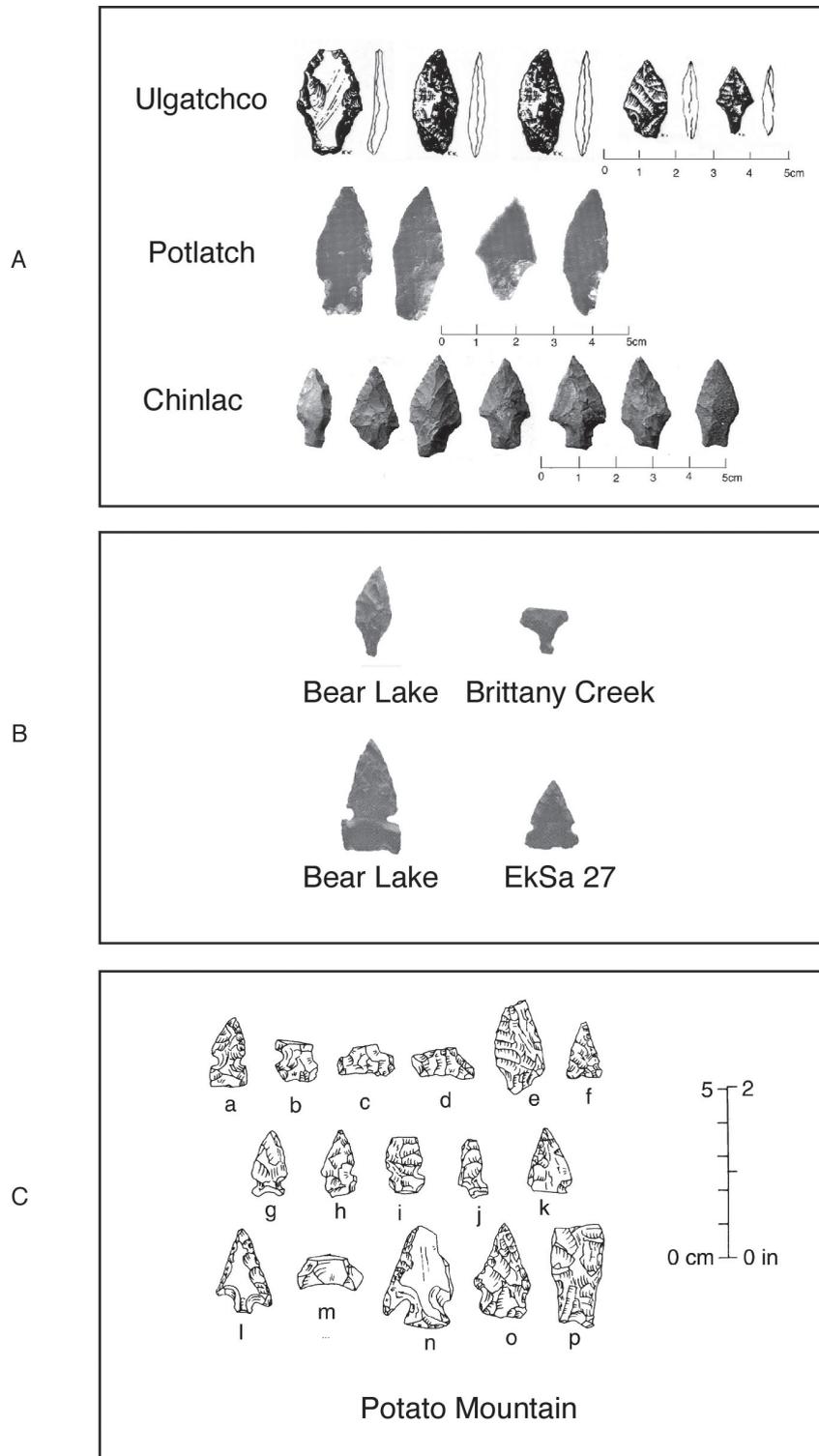
2007), which had the Potato Mountain Project (Alexander and Matson 1987, Alexander et al. 1985) as an offshoot, was aimed at understanding Athapaskan movements in the central interior, south and east of where Wilmeth (1978) worked at Anahim Lake. Part of the Eagle Lake research was devoted to multivariate analyses of small side-notched projectile points to see if points from known Salishan areas were consistently different than those from known Athapaskan areas (Magne and Matson 1982, 1987, 2004; Matson and Magne 2007). Besides the association of the Kavik point with recent Athapaskan components, we were also able to demonstrate that multiple-side-notched points were associated with Plateau Pithouse Tradition (PPT) assemblages, but we did not use that attribute in our multivariate analyses. The multidimensional scaling diagram shown in Figure 12 was one of the most critical results, classifying “Athapaskan” and “Plateau Pithouse Tradition” points at 80% accuracy strictly on the basis of metric variables. Using multiple discriminant analysis, in which “known” groups are pre-assigned,

then “unknown” samples are classified, we achieved accuracy rates of over 90%.

We characterize the Athapaskan side-notched point style (Figure 13) generally as follows, with the caveat that we strongly favour large sample multivariate analyses for discrimination purposes, and that a particular point in isolation may be incorrectly classified. The points have long blades, as opposed to those of the Salishan style (Figure 13), which tend toward blades with equilateral triangle shapes. The bases may be concave, as opposed to the Salishan style, which are straight. Sometimes the Athapaskan style bases may be longer than normal, with a contracting shape. The Athapaskan style’s notches tend to be shallow and wide. The typical Athapaskan side-notched point would therefore be one that is fairly long, with an indented base and shallow notches.

The combined projectile points and entire lithic assemblage studies showed that different kinds of multivariate analyses on varying sets of standardized data will consistently yield patterns along the lines of PPT and Athapaskan ethnicity. One very important aspect of the study is that these differences have been shown to exist in areas that share quite similar environments, as well as in areas that do not. The projectile point study shows that subtle stylistic (“enculturated” in Clark’s 2001 terms) variations in one class of material culture exist between the two ethnic groups and that these can be measured in a quantitative manner. The Athapaskan and Salishan points are well distinguished by the analyses. Indeed assemblages that were not included in the study, such as Tezli, can be seen to contain a large proportion of the Athapaskan side-notched style—in that case, we see at least 10 small side-notched points that would fit our notion of the Athapaskan style. The same is true when inspecting more southern side-notched photos—the Salishan style is far more dominant.

We were equally successful using entire assemblages, not just points, to distinguish Athapaskan or Salishan collections. The lithic assemblage analysis is encouraging in that it demonstrates that assignment of ethnicity to individual assemblages is very feasible, even using published descriptions, and also that traditional artifact classes used for such purposes by previous researchers, especially Wilmeth (1978, 1979) include some of the most useful items by which to make such distinctions. Among the most useful discriminating variables are Kavik points, easily picked out of the Ulgatcho, Chinlac, and Potlatch assem-



A Kavik points from Ulgatchco, Potlatch, Chinlac.
 B Athapaskan points from the Eagle Lake region.
 C Assorted points from Potato Mountain.

Figure 11. Points from Athapaskan sites and Eagle Lake region. Ulgatchco points reproduced with permission of Kris Foreyt.

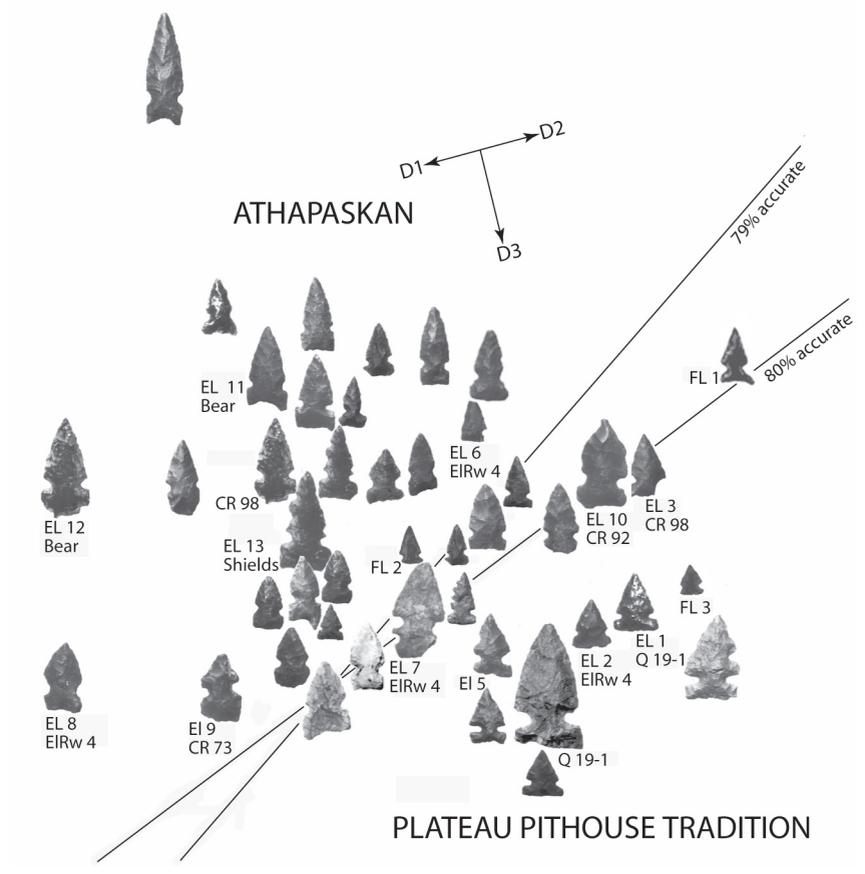


Figure 12. Multidimensional scaling of Athapaskan and Plateau Pithouse Tradition Small Side-notched points.

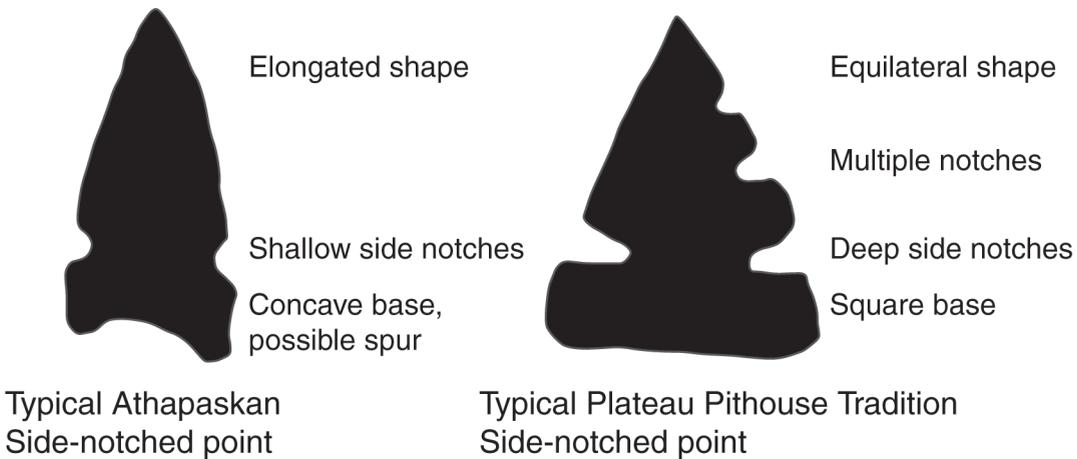


Figure 13. Diagram illustrating "typical" Athapaskan and Plateau Pithouse Tradition Side-notched points.

blages. This last procedure also identified some other flake tool types that appear to distinguish PPT from Athapaskan (sinuous edge unifaces, multiple edged utilised flakes, graters, perforators) that have not been recognized before. These studies indicate that the Plateau Pithouse Tradition is easily differentiated from the central British Columbian Athapaskan tradition as long as site function is held constant.

Microblades

While we have no direct evidence for how microblades were used in interior British Columbia, microblades elsewhere appear to be made for use in composite projectile points, probably hafted longitudinally in bone, antler or wood shafts. Microblades occur throughout the northwest from northern Alaska to southern Alberta, from the coast to the foothills (Magne and Fedje 2002, 2007). Despite their proliferation, or perhaps because of it, their meaning is highly debated (and not least, between the authors of this paper) and the nature of their temporal occurrence and association with other types of tools is not understood equally well in all places they are found. The situation is certainly not clear for the western Northwest Territories and Yukon, and even less so for central and northern British Columbia.

Microblades and microblade cores are also useful in identifying old Athapaskan assemblages but remain problematic in the last 4000 years mainly because they are not present in all assemblages that we would call Athapaskan, and occasionally are found in assemblages we would call Salishan. Nonetheless, as shown by Magne and Fedje (2002, 2007), microblades are definitely a hallmark of older Athapaskan and Na-Dene assemblages. In addition, while microblades may occur through all prehistoric periods, they appear to peak in occurrence at 8000 and 2500 years ago throughout the Northwest. In our area of northern B.C., we can agree only that they occur prior to 5000 years ago with their presence in more recent assemblages likely, but not yet demonstrated to both of us. The presence of microblades in late prehistoric contexts is still an important issue that needs to be addressed.

Conclusions

Some general patterns for projectile point styles may be observed in the west-central and northern interior

of British Columbia, although research programmes in the past 30 years have been sparse. Resource management projects are largely uninformative on this matter but this is how new knowledge is being gained in recent years. Examinations of private collections is crucial, and most of this was undertaken in the early 1970s. Although some points from the Nechako plateau and Upper Skeena region may be Paleo-Indian in age confirming dates are absent. A widespread complex of fairly large, corner-notched, and stemmed points is likely Middle Prehistoric in age but this period is very poorly understood in the area. The late period is very clearly different from the regions further south, where the ubiquitous small triangular side-notched arrow point is often the only point style present. Instead we find a subtly different triangular side-notched point along with small stemmed “Kavik” points.

General trends are apparent that have been apparent for over 30 years: the area of northwestern B.C., has a slight smattering of Paleo-Indian points, a strong presence of middle prehistoric side-notched, corner-notched, and stemmed points, and a high abundance of small side-notched points. Lanceolate forms are very common and one form with straight bases may be temporally diagnostic, occurring at about 4000–3000 BP. Site FIRq-13 reported by Burford et al. in this volume shows that the Old Cordilleran Complex of large lanceolate points was likely well-established in north-central British Columbia at about 8000 to 8700 BP. In this region, a non-housepit site of this age and complexity is extremely rare if not unique, but it implies that other substantial components are undiscovered, probably under similar geomorphological circumstances.

Recent research into small side-notched point styles shows that they can be reliably sorted into Athapaskan and PPT styles. Furthermore, Kavik points also appear to be good indicators of Athapaskan presence, as are multi-notched side-notched points for Salishan occupations. Microblades do occur prior to 5000 BP and may occur during all time periods. The archaeology of the area is greatly impeded by a lack of research on stratified non-housepit sites, something that will need to be corrected if the major patterns are to be clearly understood. Indications are that resource management projects can contribute new knowledge through intensive investigations. We find the situation disconcerting that a basic culture history as may be depicted through

projectile points is so difficult to outline here. In 1952 Borden laid out the beginnings that were not much advanced in the next 20 years, although some progress was made in the mid-to-late 1970s. The time has come to apply rigorous modeling to learn where older and more deeply buried sites in this area may be found.

Endnote: We use 1950 as the terminal date to convert reported ages BC to ages BP for this paper.

Acknowledgments. We would like to thank Roy Carlson for providing a copy of Paul Donahue's collections study and for helpful comments on an early draft. Archaeology Press, Paul Donahue, Knut Fladmark, Kris Foreyt, and Ty Heffner gave permission to reproduce illustrations and photos. Thanks to Frank Craig for a copy of the 2005 Moricetown report, and to John Brandon for a copy of the Pantage Creek report. Susan Matson drew Figures 1, 2, 12, and 13.

References Cited

- Acheson, S.
1995 The Clonard Bay Point: Evidence of Lanceolate Bifaces in the Queen Charlotte Islands. *Canadian Journal of Archaeology* 19:141–148.
- Albright, S.
1987 Archaeological Evidence of Gitksan and Wet'suwet'en History. Manuscript prepared for Dekgamuukw Supreme Court of Canada Court Proceedings, Hazelton.
- Alexander, D., R. Tyhurst, R.G. Matson, and L. Burnard
1985 A Preliminary Ethnoarchaeological Investigation of the Potato Mountain Range and the Eagle Lake Area. Report for the Heritage Conservation Branch of B.C. (Permit 1984–14). Victoria.
- Alexander, D., and R.G. Matson
1987 Report on the Potato Mountain Archaeological Project (1985). Report for the Heritage Conservation Branch of B.C. (Permit 1985–11). Victoria.
- Allaire, L.
1979 The Cultural Sequence of Gitaus: A Case of Prehistoric Acculturation. In *Skeena River Prehistory*, R. Inglis and G. MacDonald (eds.), pp. 21–52. Mercury Series, National Museum of Man, Archaeological Survey of Canada Paper No. 87, Ottawa.
- Ames, K.M.
1979 Report of Excavations at GhSv 2, Hagwilget Canyon. In *Skeena River Prehistory*, R. Inglis and G. MacDonald (eds.), pp. 181–218. Mercury Series, National Museum of Man, Archaeological Survey of Canada Paper No. 87, Ottawa.
- Aresco Ltd.
1982 Stikine-Iskut Hydroelectric Project Heritage Resource Impact Assessment 1980–81. British Columbia Hydro and Power Authority. Report on File, Archaeology Branch, Victoria.
- Ball, B., and M.P.R. Magne
n.d. B.C. Plateau and Northwestern Plains Similarities: Towards A Temporal Model For The Interior Plateau. In *Aboriginal Studies in Canada's Northern Far West: Antiquity, Culture, and Oral History of the Northern Cordillera*, C. Carlson (ed.). Unpublished manuscript.
- Brandon, J.D., and S. Irvine
1979 Archaeological Investigations in the Quesnel Area. Final Report of the 1978 Fall SWAT Archaeological Crew. Provincial Archaeologist's Office, Heritage Conservation Branch, Victoria.
- Borden, C.
1952 Results of Archaeological Investigations in Central British Columbia. *Anthropology in British Columbia* 3:31–43.
- Budhwa, R.
2005 An Alternate Model for First Nations Involvement in Resource Management Archaeology. *Canadian Journal of Archaeology* 29:20–45.
- Campbell, S.
1985 *Summary of Results, Chief Joseph Dam Cultural Resources Project*. Office of Public Archaeology, Institute for Environmental Studies, University of Washington, Seattle.
- Chatters, J.C., and D.L. Pokotylo
1998 Prehistory: Introduction. In *Handbook of North American Indians Volume 12: Plateau*, D.E. Walker Jr. (ed.), pp. 73–80. Smithsonian Institution, Washington D.C.
- Clark, J.J.
2001 Tracking Prehistoric Migrations: Pueblo Settlers Among the Tonto Basin Hohokam. *Anthropological Papers of the University of Arizona* No. 65. University of Arizona Press, Tucson.
- Clark, D.W.
1981 Prehistory of the Western Subarctic. In *Handbook of North American Indians Volume 6: Subarctic*,

- J. Helm (ed.), pp. 107–129. Smithsonian Institution, Washington D.C.
- Coupland, G.
1988 *Prehistoric Cultural Change at Kitselas Canyon*. Mercury Series, National Museum of Man, Archaeological Survey of Canada Mercury Series No. 138, Ottawa.
- Cranny, M.W.
1986 *Carrier Settlement and Subsistence in the Chinlac/Cluculz Lake Area of Central British Columbia*. Unpublished M.A. Thesis. Department of Anthropology and Sociology, University of British Columbia, Vancouver.
- Cybulski, J.S., D.E. Howse, J.C. Haggarty, and M. Eldridge
1981 An Early Human Skeleton from South-Central British Columbia: Dating and Bioarchaeological Inference. *Canadian Journal of Archaeology* 5:49–59.
- Donahue, P.
n.d. A Catalogue of Central British Columbia Surface Collections. Unpublished ms in possession of the authors.
- 1973 Ulgatcho: An Archaeological Outline. *Syesis* 6:154–178.
- 1977 *4500 Years of Cultural Continuity on the Central Interior Plateau of British Columbia*. Unpublished Ph.D. Dissertation. University of Wisconsin, Madison.
- Dyck, I., and R.E. Morlan
2001 Hunting and Gathering Tradition: Canadian Plains. In *Handbook of North American Indians, Volume 13: Plains Part 1*, R.J. DeMallie (ed.), pp. 115–130. Smithsonian Institution, Washington D.C.
- Fladmark, K.
1976 Punchaw Village: A Preliminary Report, Archaeology of a Prehistoric Settlement. In *Current Research Reports* No. 3, R.L. Carlson (ed.), pp. 19–32. Department of Archaeology, Simon Fraser University, Burnaby.
- 1982 An Introduction to the Prehistory of British Columbia. *Canadian Journal of Archaeology* 6:95–156.
- 1985 *Glass and Ice, the Archaeology of Mt. Edziza*. Department of Archaeology, Simon Fraser University, Publication No. 14, Burnaby.
- Frison, G.
1978 *Prehistoric Hunters of the High Plains*. Academic Press, New York.
- 1998 The Northwestern and Northern Plains Archaic. In *Archaeology on the Great Plains*, W.R. Wood (ed.), pp. 140–172. University Press of Kansas, Lawrence.
- Gotthardt, R.M.
1990 *The Archaeological Sequence in the Northern Cordillera: A Consideration of Typology and Traditions*. Hude Hudan Series, Occasional Papers in Archaeology No. 1. Heritage Branch, Government of the Yukon, Whitehorse.
- Ham, L.
1975 *Shuswap Settlement Patterns*. Unpublished M.A. thesis. Department of Archaeology, Simon Fraser University, Burnaby.
- Heffner, T.
2005 Final Report for Heritage Investigation Permit 2004–172: Systematic Data Recovery Conducted at Archaeological Site FfRs–55 Prior to the Ministry of Transportation Proposed Realignment of Nazko Road #59. Report to Ministry of Transportation, Cariboo Highway District. Matrix Research Ltd. Quesnel.
- Helmer, J.
1977a Site Dispersal in the Blackwater Valley: Theoretical Perspectives and Preliminary Synthesis. In *Annual Report for the Year 1975 of the Archaeological Sites Advisory Board and Selected Research Reports*, B. Simonsen (ed.), pp. 46–107. Heritage Conservation Branch, Victoria.
- 1977b Points, People, and Prehistory: A Preliminary Synthesis of Culture History in North Central British Columbia. In *Problems in the Prehistory of the North American Subarctic: The Athapaskan Question*, J. Helmer, S. Van Dyke, and F.J. Kense (eds.), pp. 90–96. Archaeological Association, University of Calgary, Calgary.
- Hoffman, J.L., and R.W. Graham
1998 The Paleo-Indian Cultures of the Great Plains. In *Archaeology on the Great Plains*, W.R. Wood (ed.), pp. 87–139. University Press of Kansas. Lawrence.
- Inglis, R.
1977 Archaeological Scientific Programme. In *Archaeological Survey of Canada Annual Review 1975 and 1976*, G.F. MacDonald (ed.), pp. 27–31. Mercury Series, National Museum of Man, Archaeological Survey of Canada Paper No. 66. Ottawa.
- MacNeish, R.S.
1960 The Callison Site in the Light of Archaeological Survey of Southwest Yukon. *National Museum of Canada Bulletin* 162:1–51.

- Magne, M.P.R.
 1982 1981 Test Excavations at Two Prehistoric Sites In the Stikine River Valley. Paper Presented at the Northwest Anthropological Conference, Simon Fraser University, Burnaby.
- 1984 Taseko Lakes Prehistory Project: Report on a Preliminary Survey. Report to B.C. Heritage Trust and Nemiah Valley Indian Band.
- 1985 Taseko Lakes Prehistory Project: Phase II: Preliminary Excavations and Additional Survey. Report to B.C. Heritage Trust and Nemiah Valley Indian Band.
- Magne, M.P.R., and D. Fedje
 2002 Evidence of Relationships Between Microblades and Athapaskans. Paper presented at Conference on Blade and Microblade Industries in Asia and America. September 16–21 2002, Vladivostok.
- 2007 The Spread of Microblade Technology in Northwestern North America. In *Origin and Spread of Microblade Technology in Northern Asia and North America*, S.G. Keates and Y. Kuzmin (eds.). Archaeology Press, Simon Fraser University, Burnaby.
- Magne, M.P.R., and R.G. Matson
 1982 Identification of ‘Salish’ and ‘Athapaskan’ Projectile Points From the Interior Plateau of British Columbia. In *Approaches to Algonquian Archaeology*, M. Hanna and B. Kooyman (eds.), pp. 57–59. University of Calgary Archaeological Association, Calgary.
- 1984 Athapaskan and Earlier Archaeology at Big Eagle Lake, British Columbia. Report to Social Sciences and Humanities Research Council of Canada. Laboratory of Archaeology, University of British Columbia, Vancouver.
- 1987 Projectile Point and Lithic Assemblage Ethnicity in Interior British Columbia. In *Ethnicity and Culture*, R. Auger, M. Glass, S. MacEachern, and P. McCartney (eds.), pp. 227–242. University of Calgary Archaeological Association, Calgary.
- 2004 A New Look at the Intermontane Model of Athapaskan Migration. *Proceedings, Rocky Mountain Anthropological Conference*, Sept. 18–21, Denver.
- Matson, R.G., and G. Coupland
 1995 *The Prehistory of the Northwest Coast*. Academic Press, New York.
- 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 M.P.R. Magne
 2004 Identifying Athapaskans at Eagle Lake, British Columbia. *Proceedings, Rocky Mountain Anthropological Conference*, Sept. 18–21, Denver.
- 2007 *Athapaskan Migrations: The Archaeology of Eagle Lake, British Columbia*. University of Arizona Press, Tucson.
- Matson, R.G., M.P.R. Magne, D. Ludowicz and D. Pokotylo
 1980 The Eagle Lake Project: Report on the 1979 Season. Report to Social Sciences and Humanities Research Council of Canada. Laboratory of Archaeology, University of British Columbia, Vancouver.
- Matson, R.G., and D. Pokotylo
 1998 Chilcotin Plateau. In *Archaeology of Prehistoric North America: An Encyclopedia*, G. Gibbon (ed.), pp. 146–148, Garland Publishing, New York.
- McNeney, S.
 2006 Archaeological Impact Assessments Conducted under Heritage Inspection Permit 2005–116 for Ministry of Forests and Range Proposed Developments Within Four Recreation Sites in the Quesnel Forest District. Matrix Research Ltd, Quesnel.
- Mitchell, D.H.
 1970a Excavations on the Chilcotin Plateau: Three Sites, Three Phases. *Northwest Anthropological Research Notes* 4(1):99–116.
- 1970b Archaeological Investigations on the Chilcotin Plateau, 1968. *Syesis* 3:45–65.
- Montgomery, P.
 1978 *Stone Artifacts from the Punchaw Lake Site (Area C): A Late Prehistoric Occupation in Central British Columbia*. Unpublished M.A. thesis, Department of Archaeology, Simon Fraser University, Burnaby.
- Mulloy, W.T.
 1954 The McKean Site in Northeastern Wyoming. *Southwestern Journal of Anthropology* 10(4):432–460.
- Noble, W.C.
 1981 Prehistory of the Great Slave Lake and Great Bear Lake Region. In *Handbook of North American Indians, Volume 6: Subarctic*, J. Helm (ed.), pp. 97–106. Smithsonian Institution, Washington D.C.

- Pokotylo, D.L., and D. Mitchell
 1998 Prehistory of the Northern Plateau. In *Handbook of North American Indians, Volume 12: Plateau*, D.E. Walker (ed.), pp. 81–102. Smithsonian Institution, Washington D.C.
- Prentiss, W.C., and I. Kuijt
 2004 The Evolution of Collector Systems on the Canadian Plateau. In *Complex Hunter-Gatherers: Evolution and Organization of Prehistoric Communities on the Plateau of Northwestern North America*, W.C. Prentiss and I. Kuijt (eds.), pp. 49–63. University of Utah Press, Salt Lake City.
- Reeves, B.O.K.
 1969 The Southern Alberta Paleo-Cultural-Paleo-Environmental Sequence. In *Post-Pleistocene Man and His Environments on the Northern Plains*, R.G. Forbis, L.B. Davis, O.A. Christensen, and G. Fedirchuk (eds.), pp. 6–46. University of Calgary Archaeological Association, The Students' Press, Calgary.
- 1983 *Culture Change in the Northern Plains: 1000 B.C.–A.D. 1000*. Archaeological Survey of Alberta Occasional Paper No. 20, Edmonton.
- Richards, T.H., and M.K. Rousseau
 1987 *Late Prehistoric Cultural Horizons on the Canadian Plateau*. Department of Archaeology, Simon Fraser University, Publication Number 16. Burnaby.
- Roll, T.E., and S. Hackenberger
 1998 Prehistory of the Eastern Plateau. In *Handbook of North American Indians, Volume 12: Plateau*, D.E. Walker (ed.), pp. 120–137. Smithsonian Institution, Washington D.C.
- Rousseau, M.
 2004 A Culture Historic Synthesis and Changes in Human Mobility, Sedentism, Subsistence, Settlement, and Population on the Canadian Plateau, 7000–200 BP. In *Complex Hunter-Gatherers: Evolution and Organization of Prehistoric Communities on the Plateau of Northwestern North America*, W.C. Prentiss and I. Kuijt (eds.), pp. 3–22, University of Utah Press. Salt Lake City.
- Sanger, D.
 1970 The Archaeology of the Lochnore-Nesikep Locality, British Columbia. *Syesis* (3) Supplement 1.
- Smith, J.
 1971 The Ice Mountain Microblade and Core Industry, Cassiar District, Northern British Columbia. *Arctic and Alpine Research* 3:199–213.
- 1974 The Northeast Asian-Northwest American Microblade Tradition (NANAMT). *Journal of Field Archaeology* 1:347–364.
- Stryd, A.R., and M.K. Rousseau
 1996 The Early Prehistory of the Mid Fraser-Thompson River Area. In *Early Human Occupation in British Columbia*, R.L. Carlson and L. Dalla Bona (eds.), pp. 177–204. University of British Columbia Press, Vancouver.
- Traces Archaeological Research and Consulting Ltd.
 2005 Archaeological Materials Recovery Project for Kya Wiget, Site GgSt-2 in the Moricetown Canyon. Report for Moricetown Band, Moricetown.
- Vickers, J.R.
 1986 *Alberta Plains Prehistory: A Review*. Archaeological Survey of Alberta, Occasional Paper No. 27. Edmonton.
- Walker, E.
 1992 *The Gowan Sites: Cultural Responses to Climatic Warming on the Northern Plains (7500–5000 BP)*. Mercury Series, National Museum of Man, Archaeological Survey of Canada No. 145, Ottawa.
- Wheeler, R.P.
 1954 Two New Projectile Point Types: Duncan and Hanna Points. *Plains Anthropologist* 1:7–14.
- Whitlam, R.
 1976 *Archaeology in the Williams Lake Area, British Columbia*. Occasional Papers of the Archaeological Sites Advisory Board of British Columbia No. 1. Victoria
- Wilmeth, R.
 1971 The Northern Plateau. Paper presented at the 1971 Meetings of the Canadian Archaeological Association. Manuscript on file with the authors.
- 1978 *Anahim Lake Archaeology and the Early Historic Chilcotin Indians*. Mercury Series, National Museum of Man, Archaeological Survey of Canada Paper No. 82, Ottawa.
- 1979 An Athapaskan Hypothesis. *Canadian Journal of Archaeology* 3:33–40.
- Workman, W.B.
 1978 *Prehistory of the Aishihik-Kluane Area, Southwest Yukon Territory*. Mercury Series, National Museum of Man, Archaeological Survey of Canada Paper No. 74, Ottawa.