



After the flood: Investigations of impacts to archaeological resources from the 2013 flood in southern Alberta

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Finding traces of trading places on the Highwood River

Brian Vivian^{a*} and Janet Blakey^a

^a Lifeways of Canada Limited, #105-809 Manning Road NE, Calgary, Alberta, Canada, T2E 7M9

*corresponding author: vivian@lifewaysofcanada.com

ABSTRACT

In the fall of 2016, Lifeways of Canada Limited completed assessment excavations at the Spitzee Post (EdPI-13) and the Metke Site (EdPI-10) as a last stage of a flood mitigation program undertaken by Alberta Culture and Tourism following the 2013 flood on the Bow and Highwood Rivers. Recognizing the value of historic resources along these drainages, we conducted archaeological studies to assess erosional impacts of the flood on these two sites. Results of these archaeological studies help to inform our understanding of human use of Spitzee Crossing. Our conclusions highlight the importance of this ford on the Highwood River over the last 5,000 years or more.

KEYWORDS

Highwood River, Spitzee Post, Metke Site, erosion, historic resources, whiskey traders

1. Introduction

On the Highwood River, a rich irony lies in the fact that early historic occupants were drawn to this flood-prone reach of the river for the same reason that these locales are now threatened by high waters and flood events. Recognizing the value and fragility of historic resources here, Alberta Culture and Tourism took steps to assess erosional impacts of the 2013 flood and to complete an inventory of historic resources along the Highwood River, following the significant 2013 flood event. In the final year (2016) of the flood mitigation program, we conducted detailed historic resources assessment excavations at Spitzee Post (EdPI-13) and the Metke Site (EdPI-10; Figure 1). The results of these archaeological studies summarized in this paper help to frame discussions about human use of Spitzee Crossing over the last 5,000 years or more.

Following the 2013 flood, Spitzee Post and the Metke Site were both revisited and reassessed as part of a greater program to assess impacts of the flood on historic resources along Highwood River (Porter et al. 2015). The post-flood assessment of these two previ-

ously recorded sites found limited observable evidence of archaeological resources and it remained uncertain as to whether or not either site was still intact. Porter et al. (2015) recommended additional archaeological studies to recover any remaining information at both sites before erosion from future floods.

Acting on recommendations made for Spitzee Post and the Metke Site, Alberta Culture and Tourism contracted Lifeways of Canada Limited (Lifeways) to undertake more detailed assessment and excavations of the two sites in the fall of 2016. Lifeways invited Drs. Brian (Barney) Reeves and Mike Wilson to participate as both individuals had been instrumental in the original documentation of these two sites. In planning the full extent of this project, we undertook a multi-disciplinary and collaborative approach that included employment of a wide range of earth sciences, specialized analyses of sediments and stratigraphic sequences, identification of wood samples, and the use of remote sensing techniques to identify hidden features or foundations not perceptible on the surface.

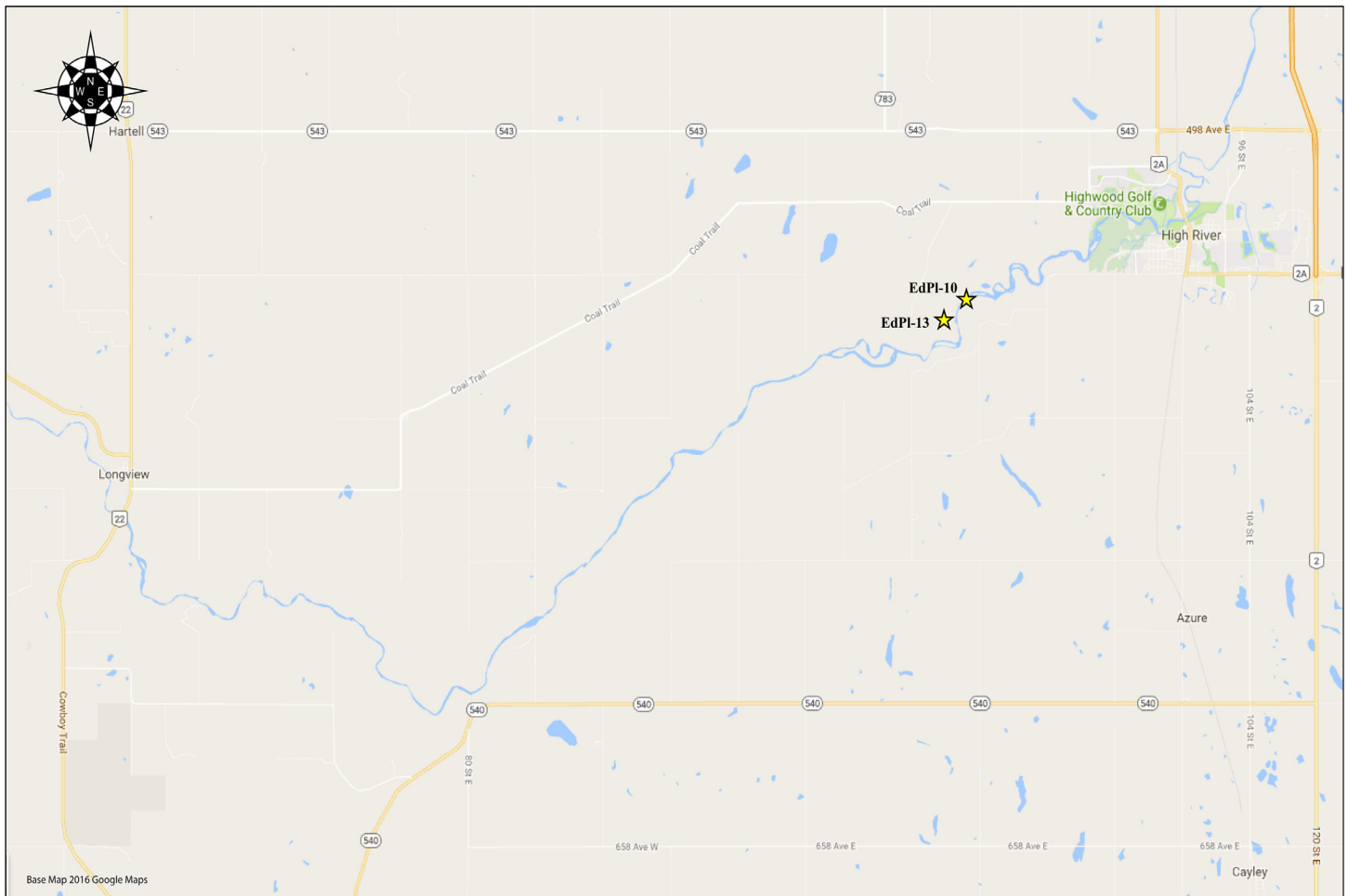


Figure 1. Location of Spitzee Post (EdPI-13) and Metke Site (EdPI-10).

2. Background of Spitzee Post (EdPI-13)

2.1 Spitzee and the Highwood River system

Key to the naming of Spitzee and the role that this locale has played in Alberta history, is its geographic position and the formation of the Highwood River drainage system over the last 10,000 years. At the point where this high-energy river leaves the foothills, it passes through a wide basin that slows its flow and creates a low-gradient environment, characterized by a shallow, braided stream which has meandered widely across the valley over time. The flow of water and geological downcutting have been further curtailed over the last 7,000 to 8,000 years by the downstream capture of the Highwood River in early post-glacial times. Where the drainage originally flowed out through the Little Bow drainage system to the south, upstream erosion of a Sheep River tributary captured the Highwood River and channeled it north, as it now flows.

The working and reworking of the valley landscape upstream of High River has created a low-lying riparian en-

vironment heavily treed in high cottonwoods. The importance of this riverine environment was recognized by the Blackfoot, who named the locale *Spitzee*, which translates to “tall cottonwoods” or “high wood” (Amundsen-Meyer 2014). Such cottonwood flats were important wintering grounds for the Blackfoot and were places where people camped in protected valley bottoms close to water and wood for fuel (Peck and Vickers 2006). The Spitzee locale was a dual attraction for its well-established cottonwood forest in a gentle, low-lying valley and as a place where the shallow river was easily crossed. The shallow waters became a focal point on the Old North Trail (Reeves 1992; Amundsen-Meyer 2014). In historic times, the importance of this locale to the Blackfoot is indicated by the reverence they had for the neighbouring “Medicine Tree”, the name they gave to two cottonwoods with entwined trunks.

2.2 Historical accounts of Spitzee Post

In 1792, Peter Fidler (1991) provided the first historic documentation of this location when he reached the *Spitcheyee* River on December 14. In the century that followed, the

ford at Spitzee Crossing became a well-known landmark on the McLeod Trail as more and more missionaries, traders, and homesteaders of European origin moved into southern Alberta (c.f. Sheppard 1971; Knupp 1982).

The Spitzee locale rose to prominence during the brief era that the whiskey trade flourished in southern Alberta in the 1870s, prior to the arrival of the Northwest Mounted Police (NWMP; Kennedy 1991, 1998). After the Hudson Bay Company ceded southern Alberta to the Dominion of Canada, the need to curtail the influx of whiskey traders from Montana and bring law and order to the territory were reasons the NWMP was created. In the decade before this, frontier entrepreneurs, such as Howell Harris, “Ace” Samples, Dave Ackers, “Liver Eating” Johnson, and others, moved into the region to establish a number of trading posts between the borderlands of the Milk River and Cypress Hills, north to the Bow River and Buffalo Lake. While the documentation of many of these posts is poor, it has been suggested that at least three, and possibly more, such establishments were constructed at Spitzee. Occupants of these posts gained notoriety as wolfers and whiskey traders who were quick to mete out their own form of justice in an otherwise lawless land.

The arrival of the NWMP brought an end to this frontier era, and most of the posts were closed or abandoned as traders moved on to other pursuits. It has been suggested that one post was intentionally constructed close to the Medicine Tree to gain protection from the reverence the Blackfoot held for this tree, where they would often camp and leave offerings. This, evidently, was not the case, as

historic accounts tell of the Blackfoot coming to burn that post down shortly after Howell Harris, the alleged builder of Spitzee, left in 1873 or 1874 (Weadick 1950).

In the years that followed, prominent citizens of the area, such as Dan Riley and Guy Weadick, wrote of recollections of this bygone era and the trading posts and whiskey traders involved (Weadick 1950; High River Pioneers’ and Old Timers Association 1960). However, detailed documentation of the number of posts built, their locations, sizes, and dimensions is lacking. As Spitzee Post continued to fade into obscurity in more recent times, it is fortunate that the location of this post was included in the inventory of whiskey posts that Margaret Kennedy and Brian Reeves (1984) completed in 1984. They listed the Spitzee Post as one of 43 such whiskey posts known in southern Alberta.

2.3 Archaeological recording of Spitzee Post

In a visual inspection of the post locale, Kennedy and Reeves (1984:132) recounted seeing “rock piles likely representing chimneys . . . on the north, south, and west walls” and “palisade trenches obvious on the north and south walls”, although they did admit that proper archaeological investigations were needed to determine the actual size and orientation of the structure. They concluded that Spitzee Post, recorded as site EdPl-13, was one of the two most well-preserved whiskey trading posts remaining in Alberta. In the years that followed, flooding continued to inundate this land surface and all of the features observed by Kennedy and Reeves in 1984 have been covered by silt and are no longer visible (Figure 2).



Figure 2. View of Spitzee Post (EdPl-13) excavations, looking north.

3. Background of the Metke Site (EdPI-10)

The Metke Site (EdPI-10) is an early bison kill site first recorded in the 1970s when a large bison skull was observed eroding out of the banks of the Highwood River (Wilson 1980). It is on a low bench on the north side of the river, immediately downstream from Spitzee Post (Figure 3). It is named after Don Metke, a local teacher, who first observed and reported the site in 1975. A bison skull found at the site was radiocarbon dated to circa 6,900 years ago and indicated an early precontact occupation (Wilson 1980:2).

The Metke Site was one of many recorded along the Highwood River and reported under Permit 14-250 (Porter et al. 2015). It is located on the margins of an actively cultivated field on a wide terrace that stands 2 to 3 metres above the Highwood River. In the post-flood assessment investiga-

tors recovered a number of fragmented and butchered bison bones and one argillite flake from slump blocks in front of the site. Mazama Ash was observed, not in a direct association with the finds, but just downstream. In combination with the previous materials and the radiocarbon date, the site was considered to be of high historic value and was recommended for further study.

4. Finding Spitzee Post

In 2016, despite a lack of visibility on the surface, we successfully identified the post, as well as an historic campsite 80 metres to the south and closer to the river (Figure 4). This riverbank camp was marked by an intact hearth approximately 60 centimetres below surface (Figure 5). The hearth and an associated scatter of cultural materials were



Figure 3. Metke Site (EdPI-10), looking west.

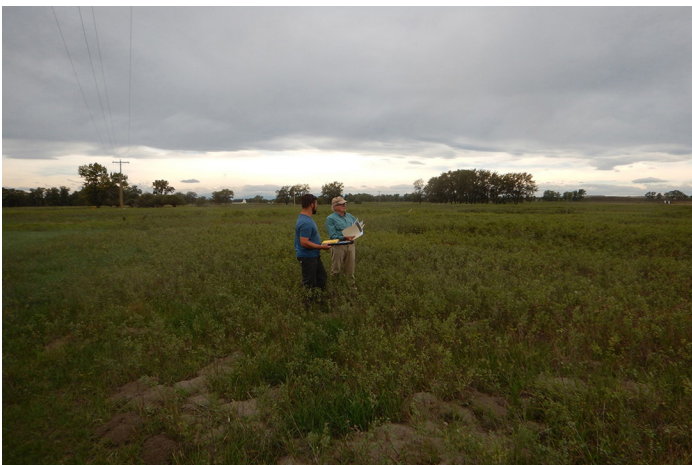


Figure 4. Reviewing location of Spitzee Post (EdPI-13).



Figure 5. Plan view of riverbank fire hearth (EdPI-13).

evidence of a location where a group of people camped for three or four days or possibly longer. A few historic artifacts associated with this camp include threaded screws, tin can fragments, several spent bullets, and eyelets from a boot, which indicate that these camp remnants were roughly contemporaneous with Spitzee Post. While it seems more than coincidental that this camp is in direct proximity to Spitzee, there is no evidence of a direct affiliation, or even whether the occupants were First Nations or Euro-Americans. Based on the variety of recovered ammunition (including cartridge casings and a shotgun pellet; Figure 6:1–4, 6–7), the inhabitants had access to a range of firearms. Faunal materials recovered indicate that a wide range of animals were hunted including canids, deer, fish, and bison. The presence of fetal bison establishes the camp as a winter occupation. This fits with stories that Howell Harris and others arrived in December to build the post (High River Pioneers' and Old Timers Association 1960), but no other evidence ties the riverbank camp with Spitzee Post. One would expect to find a more extensive scatter of materials if people had camped here for several weeks or longer while building the post. A lack of artifacts suggests that this was either a short occupation or that the inhabitants were not materially rich.

Much as Kennedy and Reeves (1984) had originally reported, excavations at Spitzee Post revealed a large pile of cobbles, likely the remnants of a collapsed chimney, buried 10–30 centimetres below surface (Figures 7 and 8). A range of metal, glass, and ceramic artifacts recovered here indicate that the inhabitants arrived well-prepared and equipped to construct and fully stock the trading post. These artifacts include canned and bottled food and drink, ceramic tableware, pots and pans for food preparation, nails, nuts, bolts, and heavier tools (e.g., pick-axe). Personal items include firearm ammunition, a tobacco pipe, buttons from assorted clothing, and decorative beads. While these findings support Harris' recollection of traveling north with three freight wagons of goods to establish the post, the quantity of material recovered seems to belie the short period of time (possibly only a handful of months) that Harris claimed he was here (High River Pioneers' and Old Timers Association 1960:173). It is possible these traders expected to stay longer but left due to unforeseen circumstances that are never elaborated on in historic accounts.

Many of the recovered spent cartridges had an "H" head-stamp impressed in the centre of the casing, indicative of Henry rifles and cartridges (Figure 6:5, 8–13). Henry rifles were widely used in the American Civil War and were common in the following years. In addition, .44 Henry rimfire cartridges could also be used in Winchester 1866 rifles (pri-

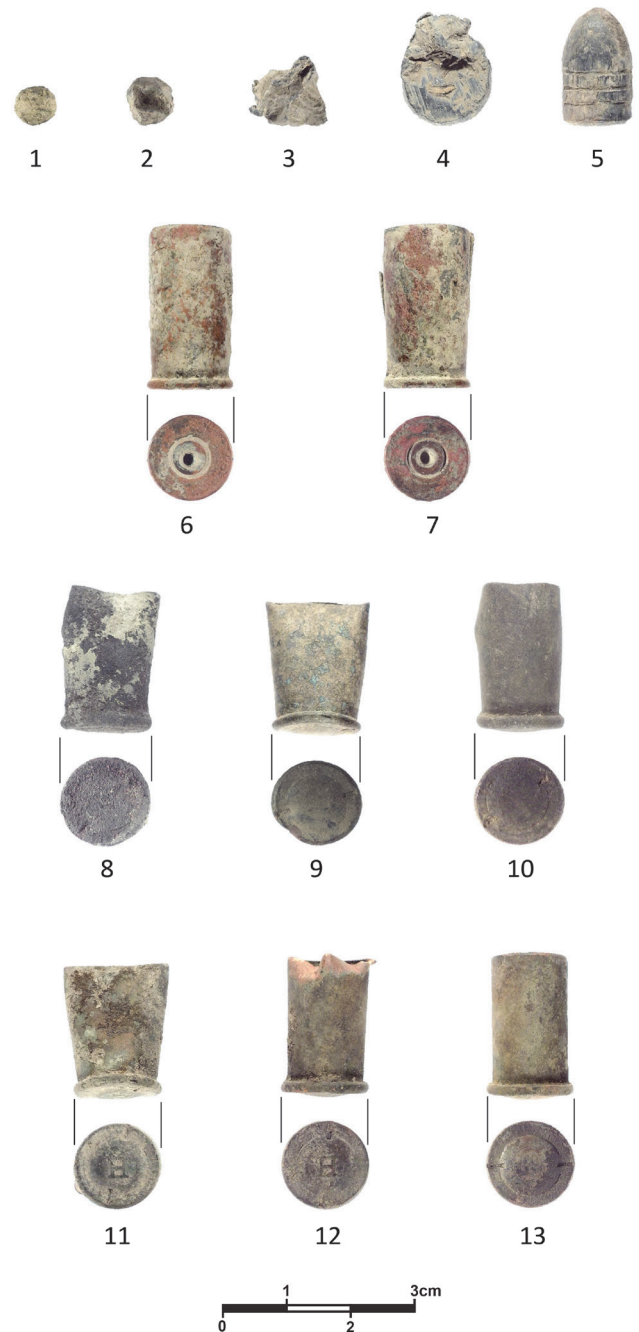


Figure 6. Historic ammunition from Spitzee Post (EdPI-13). 1) Cat.# EdPI-13-1038: lead shot—buck shot (Riverbank Camp); 2) Cat.# EdPI-13-1035: lead shot—fragmented (Riverbank Camp); 3) Cat.# EdPI-13-1037: lead shot—fragmented (Riverbank Camp); 4) Cat.# EdPI-13-1036: shot bullet—deformed (Riverbank Camp); 5) Cat.# EdPI-13-1028: fired .44 calibre lead bullet (Whiskey Post); 6) Cat.# EdPI-13-1025: centrefire cartridge case, .44 Smith & Wesson—Russian (Riverbank Camp); 7) Cat.# EdPI-13-1026: centrefire cartridge case, .44 Smith & Wesson—Russian (Riverbank Camp); 8) Cat.# EdPI-13-1031: rimfire cartridge case, .44 Henry (Whiskey Post); 9) Cat.# EdPI-13-1032: rimfire cartridge case, "H" on head (hard to see), .44 Henry (Whiskey Post); 10) Cat.# EdPI-13-1030: rimfire cartridge case, .44 Henry (Whiskey Post); 11) Cat.# EdPI-13-1033: rimfire cartridge case, "H" on head, .44 Henry (Whiskey Post); 12) Cat.# EdPI-13-1027: rimfire cartridge case, "H" on head, .44 Henry (Whiskey Post); 13) Cat.# EdPI-13-1029: rimfire cartridge case, "H" on head, .44 Henry (Whiskey Post).



Figure 7. Excavation of collapsed fireplace at Spitzee Post (EdPI-13).



Figure 8. Plan view of collapsed fireplace exposed at Spitzee Post (EdPI-13).

or to their adoption of centrefire cartridges) and Colt Revolvers which boosted the utility of this ammunition (Butler 1971). We assume that the many Civil War veterans who went on to become whiskey traders/wolfers in southern Alberta maintained a strong preference for Henry rifles and associated ammunition.

As with the assemblage from the riverbank camp area, the faunal materials recovered at the post show that a wide range of wildlife was hunted or brought to the post for trade, including bison, large and small canids (wolf, coyote, and fox), beaver, badger, grouse, and fish. Again, the presence of fetal bison indicates that some of these animals were hunted in winter. While it is likely that many of these, including fish, grouse, and bison, represent food resources, it is also possible that canids and beaver were hunted for pelts. The presence of small species (like grouse and fish) may be suggestive that all available food sources were sought, and may be an indication that bison or other large

ungulates had become less plentiful than they had previously been.

By some accounts, Howell Harris arrived to build Spitzee Post in December and left the following May, after which the structure was allegedly burned down by the Blackfoot, although the years over which these events occurred varies, with one version claiming it was 1871 to 1872 and a second version claiming it was in 1872 and 1873 (i.e., Weadick 1950; Dempsey 1953; High River Pioneers' and Old Timers Association 1960). Kennedy and Reeves (1984:131) provide a more thorough review of these accounts, and note the inconsistency in the year Harris claimed to have arrived, as well as the existence of other records that suggest the Spitzee Post remained standing until circa 1874. The extended duration of the post (more than the six months Harris implied) may be more plausible, considering the size of the structure and quantity of scattered materials recovered.

While the actual size and configuration of the structure remains uncertain, it is clear that considerable time and energy went in to constructing this post. Identification of the burned and carbonized wood samples shows that local cottonwoods were used to build the structure (Vivian and Blakey 2017). The discovery of a plank (Figure 9) provides further evidence of a lengthy occupation, given the substantial amount of time it would have taken to hew or saw (this plank was too burned to assert how it had been shaped) logs into dimensional lumber, likely used for roofing and framing doors and windows (we assume that the walls were of log construction). Additionally, considering how long it would have taken to haul the many cobbles needed to construct one or more fireplaces, one can begin to appreciate the time invested in building this post. Certainly, it was planned to last longer than the six months Harris claimed to have



Figure 9. Burned wood plank and pick axe found during excavations at Spitzee Post (EdPI-13).

been in occupancy. The overwhelming evidence of burning at this site, noted in stained soils, charred logs, fire-broken cobbles, burned and melted glass, and burned bone, aligns with accounts of the post having been burned down.

5. Assessing the Metke Site

The Metke Site (EdPI-10) was the second archaeological site on the Highwood River mitigated by our project. While our 2016 assessment was not successful in finding additional evidence of the early occupation originally identified by Wilson (1980), our survey and excavation activities did identify an extensive precontact and historic artifact scatter—remnants from the multiple occupations of these lands, adjacent to the Highwood River, through the millennia.

Detailed study of the sediments and stratigraphic exposures indicates these lands to be an ancient surface that has remained stable and has been covered with fine aeolian silts over the last 6,000 years. Once this land surface stabilized above the river level, people were drawn to camp here along the river margin. This locale was revisited and reoccupied numerous times over the last 5,000 years or so but bioturbation has seriously impacted and mixed the stratigraphy and cultural occupations across much of the site.

At least three distinct cultural components were identified including an early twentieth-century occupation represented by the scatter of historic debris at its west end, a Late Precontact component (500–1,000 years BP) represented by a ceramic sherd and a scatter of fire-broken rock found within the plough zone, and a deeper component that was well-represented in the main excavation block. It is this deepest component that was the best defined and of greatest archaeological interest at EdPI-10.

Excavations resulted in the recovery of worked cobbles and cores associated with a number of projectile points, other stone tools, and lithic debitage adjacent to a hearth (Figure 10). Radiocarbon dates place the age of this component to be circa ~5,500 years ago (Vivian and Blakey 2017). This date and the diagnostic projectile points recovered suggest this Early Precontact component is an early manifestation of the Calderwood Complex (Figure 11; see Peck 2011). Exotic lithic materials, such as obsidian and Knife River Flint, from distant sources were largely absent or present only in trace amounts in the lithic assemblage, suggesting that the site's occupants were largely focused within the foothills and Rockies of southern Alberta. The preponderance of locally-available, easily-accessible stones suitable for use as lithic raw materials, could have been one of the attractions of camping here. While the scattering of formed tools and



Figure 10. Plan view of hearth stain at Metke Site (EdPI-10).

small amount of bone found at the site are consistent with a domestic camp setting, the low density of cultural materials indicates that this component represents a short-term campsite (one or two months at most). The lack of fire-broken rock associated with the Calderwood Component suggests that stone boiling was not performed here.

While the 2016 excavations were successful in identifying a significant cultural component at EdPI-10, the relationship of this component with the bison skull and bones originally identified at Metke is uncertain. No evidence of an earlier component was identified by the 2016 excavation, and it is unlikely that the ~5,500-year-old component is related to the previously radiocarbon dated (6930 ± 260 ^{14}C yr BP) bison skull (Wilson 1980:2). It is possible that the earlier and originally identified bonebed has now been washed away. Alternatively, the bison skull (which was not found *in situ*) may have been a random occurrence not directly related to any cultural component.

Of greater interest is that both components indicate a focus of human activity on these low landforms adjacent to the Highwood River. Basal sediments suggest that this site may have been a backchannel around 6,900 years ago, when the skull was deposited. A close parallel to this site is the Brown Site (EePn-97) where multiple occupations dating between 5,000 and 6,000 years ago are present on a low terrace immediately adjacent to the Sheep River (Vivian et al. 2017). The oldest component here is a bison kill that lies in the contact zone of the basal clays, where a backchannel of the river was used to trap bison before they were killed. There too, recent flood events have removed a majority of the site. Sites dating between 5,000 and 6,000 years ago are rarely found in southern Alberta and it may be that many have been removed due to the erosional impacts of low landforms adjacent to rivers.

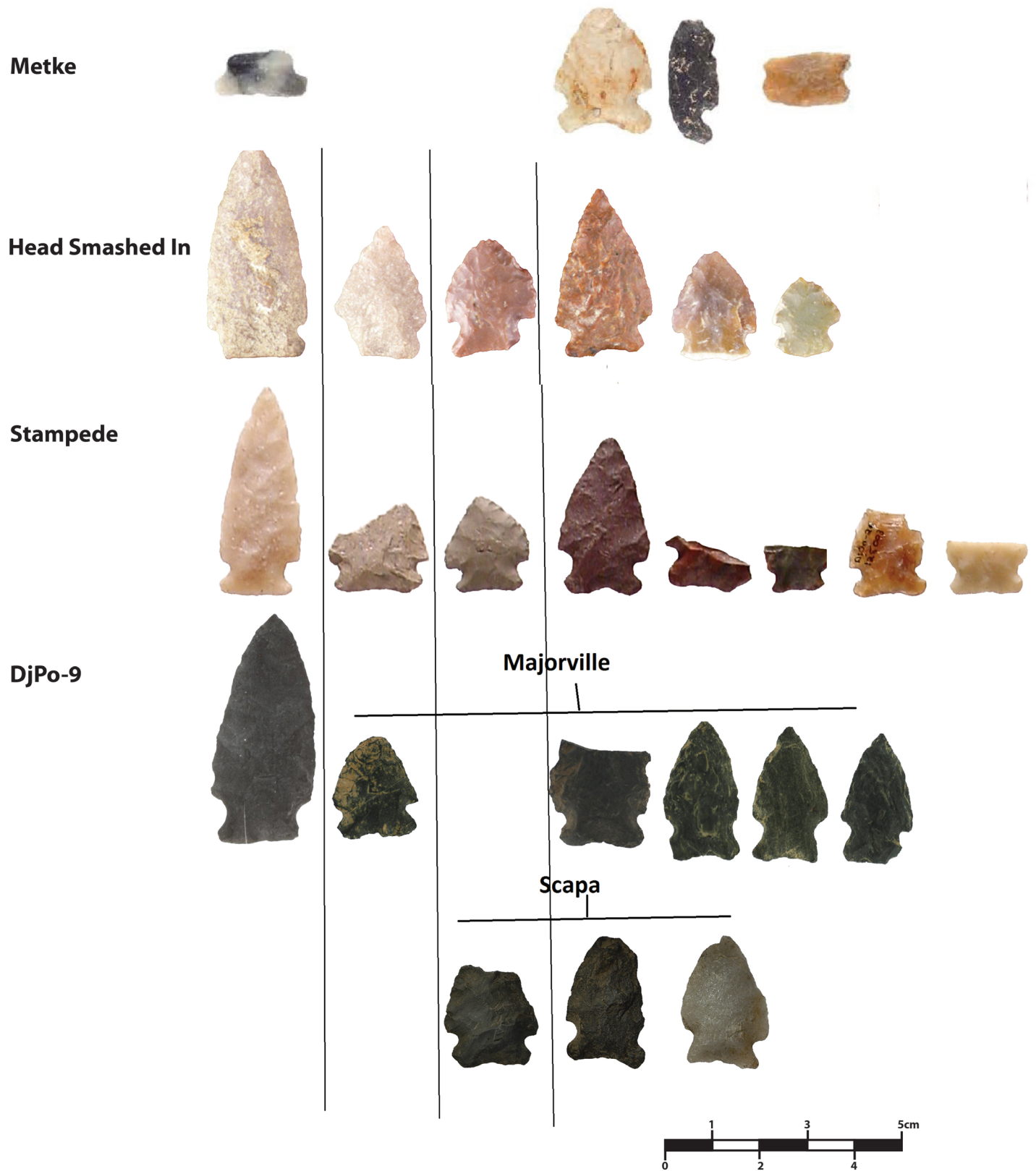


Figure 11. Schematic representation of projectile points associated with the Calderwood Phase.

These low landforms continued to be a focus of occupations into the relatively recent past, as suggested by the scatter of historic debris observed in the field at the west end of the site area. A collection of white china, amethyst and aqua-coloured glass sherds, a rolled piece of lead, and rusted metal fragments are indicative of a historic occupation dating to circa 1900 (Figure 12). A partially intact orange and black paper label on a square can recovered from test excavations reads “E.C. No. 2 Sporting Powder (gun powder)” along with a logo for “The E.C. Powder Company Limited” (Figure 12:7). Gun powder for loading shotgun

shells was commonly sold in this form in the late 1880s and 1890s, a time period consistent with the style and manufacture of the can and other historic refuse from this scatter.

Historic land titles and homestead records show that the NE quarter of Section 32- 18 -29-W4 was granted to Daniel Edward Riley on August 21, 1899; this date corresponds well with the few historic artifacts collected. In addition, these finds align with Guy Weadick’s claim that Senator Dan Riley first homesteaded here in the 1890s. Dan Riley related that he homesteaded immediately north of Spitzee Post before he moved into town and went on to become the first mayor of High River in 1906. He was later appointed to the Canadian Senate in 1925 (High River Pioneers’ and Old Timers Association 1960:55).

6. Conclusion

Recent archaeological excavations at Spitzee Post and at the Metke Site highlight how their geographic setting on low-lying landforms along the river represents a common thread that has drawn people to this locale over the last 5,000 to 6,000 years. The importance of this riverine environment was recognized by the Blackfoot people, who called it “Spitzee” for the “tall cottonwoods” found growing here (Amundsen-Meyer 2014). Such cottonwood flats were important wintering grounds for the Blackfoot where people could camp in protected valley bottoms close to water and where wood for fuel was readily available (Peck and Vickers 2006). Spitzee also marked the locale where the shallow river was easily crossed. In historic times, the Blackfoot reverence for the neighbouring Medicine Tree signifies the importance of this locale, which became well-known as “The Crossing”, as whiskey traders and homesteaders of European origin arrived in historic times.

The same factors recognized earlier by the Blackfoot influenced the number of trading posts established here in the 1870s. In fact, it can be argued that in the years before and just after the NWMP arrived, Spitzee was a more important locale than Calgary. It is in this historic milieu that Spitzee Post fits and where we can truly appreciate the historic significance of the site. The extensive scatters of cultural materials from Metke (EdPI-10) and other sites up and down the river suggest that this pattern of landuse was established long before the Medicine Tree grew and Euro-Canadian populations arrived. At these sites, evidence of precontact occupations associated with camping adjacent to the Highwood River extends back 5,000 to 6,000 years ago. The low terrace where the Metke site is found provides easy access to the river and its many resources, including cobbles to produce stone tools and a dry camp location adjacent to a



Figure 12. A selection of historic artifacts from Metke Site (EdPI-10). 1) Cat.# EdPI-10-808: white porcelain vessel fragment with brown floral decoration; 2) Cat.# EdPI-10-814: white porcelain vessel base fragment with maker’s mark “ENTSON” and “ENGLAND”; 3) Cat.# EdPI-10-844: metal and glass personal adornment item (button or brooch?); 4) Cat.# EdPI-10-842: glass vessel fragment with molded chevron decoration; 5) Cat.# EdPI-10-838: glass cup or mug base with vertical grooves; 6) Cat.# EdPI-10-793: roll of lead roofing material; 7) Cat.# EdPI-10-788: sporting powder container, E.C. No. 2 sporting powder (gun powder) along with a logo for “The E.C. Powder Company Limited”.

well-used ford. Here, we can appreciate the irony that the same factors that favoured the selection of these low-lying settings for campsites now serve to exacerbate the erosional forces that threaten to destroy these sites. Recognition of the unique character and historic importance of these archaeological sites highlights the importance of efforts undertaken by Alberta Culture and Tourism to preserve and document these non-renewable historic resources.

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