

**PRELIMINARY REPORT  
ON THE CULTURAL STRATIGRAPHY  
AT THE PROPOSED LOCATION  
FOR THE CANADIAN MUSEUM FOR  
HUMAN RIGHTS**

Submitted to

**Friends of the Canadian Museum for Human Rights Inc.**

**QUATERNARY  
CONSULTANTS  
LIMITED**

December 2003

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## **1.0 INTRODUCTION**

In order to fully ascertain the extent of cultural resources within the potential location of the proposed Canadian Museum for Human Rights, it was necessary to conduct an archaeological impact assessment of the areas which had not been previously investigated. Earlier projects had located considerable archaeological resources along Waterfront Drive (Quaternary 1999), along an early proposed extension of York Avenue to the Provencher Bridge (Quaternary 1989), at the southeast corner of the intersection of York Avenue and Waterfront Drive (Quaternary 2000a), and along a services corridor between Waterfront Drive and The Festival Park bandstand (Quaternary 2000b) (Figure 1). These, included with the extensive discoveries north and west of Waterfront Drive (Quaternary 1990a, 1990b, 1990c; 1996; 1998; 2000c, 2001, 2003a, 2003b, 2003c), indicated that the area had been a favoured occupation site for a 300 to 400 year period beginning about A.D. 1000 (Quaternary 1999).

However, within the potential museum location, large areas were untested and the number and density of cultural layers was unknown. Accordingly, an impact assessment, using the excavation of test trenches was undertaken. This assessment was conducted under Heritage Permit A46-03, issued by Historic Resources Branch, Manitoba Culture, Heritage and Tourism and City of Winnipeg Development Permit No. 03-329220.

The field component of the assessment was undertaken between November 3, 2003 and November 13, 2003. The lateness of the season had implications on the ease of excavation, due to the presence of up to 40 cm of frost in the ground, and the recovery methods, due to sub-zero temperatures.

The rationale for submitting this interim report, focused upon the cultural stratigraphy of the proposed location, is to provide relevant data to the architects participating in the international design competition. The extent, depth below surface, and density of the recorded archaeological layers has ramifications for the mitigative actions that would be required for different types of construction and design parameters.

### ***1.1 Scope of Project***

A series of twenty four test trenches were excavated on the lands owned by The Forks North Portage Partnership (Parcel A1) and by the City of Winnipeg (the northern third of the area -Parcel A2) (Figure 1). The goal of the assessment was to determine the eastern limits of the pre-European cultural resources. During the monitoring of the construction of the realignment of the roads leading to the new Provencher Bridge, no archaeological resources were recorded along the south side of Water Avenue east of the Waterfront intersection (Quaternary 2003c), thereby providing a northern limit. In addition, pre-European cultural horizons did not occur at the west abutment of the new Provencher Bridge (Quaternary 2002a) or at the west abutment of the Esplanade Riel pedestrian bridge (Quaternary 2002b, 2003d). The research pattern was modified during the field program as a result of the data recovered during the investigations with the cultural layers extending further east than originally anticipated.

## ***1.2 Methodology***

The trenches were excavated using a rubbermount backhoe with a 22" bucket. Due to the thickness of frost, it was not possible to use a smooth bucket as the teeth were necessary to break through the frozen ground. In fact, for two trenches, the small backhoe was not able to excavate through the frost which extended more than 60 cm and it was necessary to bring in a large backhoe with a jackhammer. The skilled backhoe operator was able to compensate for the teeth and minimize the disturbance of the soils below the level of each cut by curling his bucket to result in a level cut. Each trench was a minimum of 4.0 metres in length, as this permitted an adequate reach for the backhoe boom to provide a smooth floor cut at least 3.0 metres in length at the basal depth of 300 centimetres. Each cut was generally 5 to 8 cm thick. The recorded stratigraphy is based upon natural strata.

The excavated soil was brought to the surface by the backhoe and spread across the ground adjacent to the trench. The archaeological field crew of five professional archaeologists, using garden rakes, spread and sorted through the excavated soil. When cultural resources were encountered, the recovery techniques included the use of trowels and hand-retrieval. Due to the extreme cold weather on some days, the cultural layers were occasionally removed *en bloc* and placed into buckets for further recovery of small artifacts in the laboratory. All artifacts were recovered and bagged according to trench number and depth of the cultural stratum. They were then transported to the laboratory facilities for future processing, primarily wet-screening through 1 mm mesh. The recovery of small artifacts such as fish vertebrae and lithic flakes validates this investigation technique.

In order to record the stratigraphic profiles within each trench, temporary shoring was installed. The Senior Archaeologist would enter into the trench and, through visual examination of the walls of the trench, record the different soil types (clay, silty clay, silt, sandy silt, and sand) and the colours of each discrete soil layer. The depth below surface of each cultural stratum was ascertained. By compiling the stratigraphic profiles, an overall chart of the depths and extent of each cultural horizon has been obtained. The undulations of a particular stratum can be followed within each of the trenches but correlation between trenches is often tenuous.

Due to safety concerns regarding public access in the area, each trench was infilled as soon as the stratigraphic profile had been recorded. To eliminate the possibility of sinkage, the excavated soil was tamped as it was replaced within the trench. At the end of the project, it was impossible to observe where the trenches had been, as the areas had been returned to their original condition.

## ***1.3 Study Team***

The entire archaeological resources management program was directed by Sid Kroker (M.A) (Senior Archaeologist). The field impact assessment component employed Donalee Deck (M.A.), Edward Eastaugh (M.A.), Ernie Reichert (M.A.), Brian Smith (M.A.), and Jim Ward (B.A.). The backhoe was operated by Jim Kowerko of Cambrian Excavators. Laboratory operations, resulting from artifact recovery, are forthcoming and will be supervised by Pam Goundry (B.A. Hon.) (Research Archaeologist).

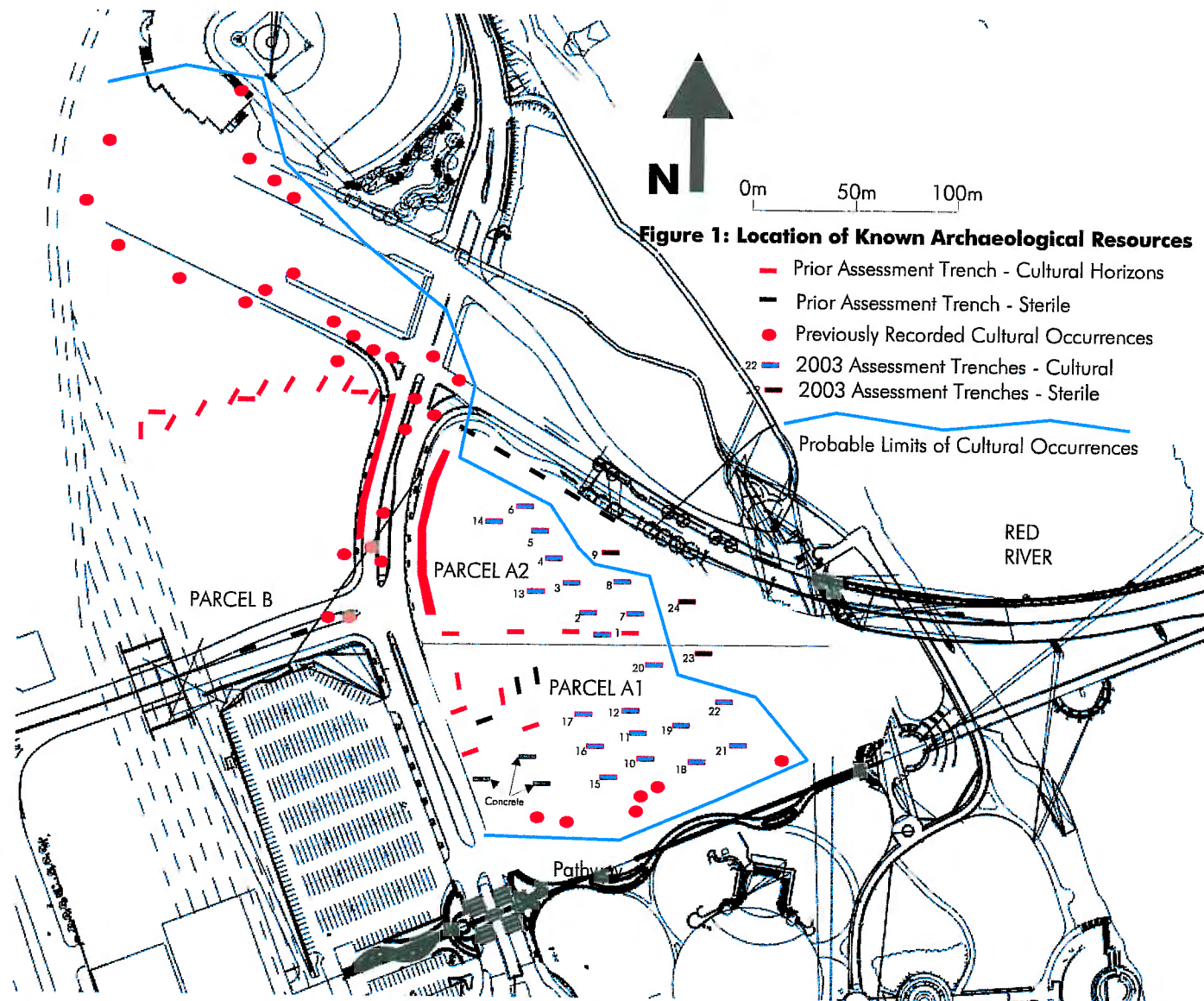


Figure 1: Location of Previously Known Archaeological Resources and the 2003 Assessment Trenches

## 2.0 STRATIGRAPHIC DATA

The focus of the assessment was the determination of the depths, density, and extent of the pre-European cultural levels. The entire stratigraphic profiles for each trench were recorded but, for this preliminary report, only the cultural layers will be discussed. The upper portion of the soil column consists of material (cinder, gravel, sand, redeposited silt, etc) deposited during the century that the area was occupied by railroad companies. The fill rests on a soil horizon which dates to A.D. 1888 when the area was purchased by a railroad company from the Hudson's Bay Company. Underlying this soil horizon are numerous soil strata deposited by floods over the past millennia. The different types of riverine sediments between the cultural layers can provide data on intensity of flood episodes, the source of the deposited sediments (upper reaches of the Red River or the Assiniboine River), and the number of different deposition periods between the cultural occupations.

Table 1 lists the number and depths of the cultural layers recorded in each trench, but does not indicate the thickness or density of each occurrence. The vertical organization is an attempt at linking horizons which may be the result of a single occupation. A similar format is used with the listing of previously recorded data (Table 2). However, it is known that soil strata and even cultural horizons are not continuous. The area is a flood zone and deposition can be variable during a high water episode. Also, due to tree falls and ice jams, erosion can occur immediately adjacent to an area which receives a thick layer of sediment deposition. This usually results in an undulating ground surface, whereby changes in elevation of 20 to 30 centimetres would be commonplace. This contributes to the difficulty of correlating cultural layers from non-contiguous trenches.

Even during the continuous trench excavation at the east edge of Waterfront Drive, thick cultural layers would be truncated and when a new occurrence was observed, it could not be definitively correlated with one of two possible truncated horizons (Quaternary 1999:Figure 2). During that project, eleven discrete cultural horizons were identified. By combining probable continuations of disjunct horizons, it was determined that at least eight different occupations had occurred. The time period of these occupations, determined by radiocarbon dating of faunal remains resulting from food procurement activities, ranged from A.D. 1000 to A.D. 1300. The majority of the occupations occurred during the last century of that period, separated by five sediment-depositing floods.

The stratigraphic data from the 2003 assessment trenches plus the data from previous projects are plotted on Figure 2 with the relative thickness of the layers noted. Very thick cultural layers averaged 4 to 8 cm in thickness and contained hundreds of artifacts per litre of matrix. The continuous trench from The Forks Access Project (Quaternary 1999) is shown on the map as a long arc on the east side of Waterfront Drive. The cultural layers from only three locations from the trench are plotted on Figure 2. However, the profile of the entire trench is displayed as Figure 3 to provide a visual example of the complexity of the stratigraphy. This complexity is not apparent when the data from individual, widely-spaced trenches are examined. This continuous profile indicates that the soil layers (and the encapsulated cultural layers) tend to dip downwards to the north. The data from the 2003 assessment trenches indicates that there may be a tendency for the soil layers to also slope downwards to the east. Three profiles running east/west across the museum location area have been compiled (Figure 4, Figure 5, and Figure 6). The location of the transects are depicted on Figure 2.

Trench								
1	155		205					295
2				235				290
3								285
4						265		
5				220				285
6			200			275		
7				225		260		295
8	145							295
9								
10		175	195	230			280	
11			200	230		265		
12				230			280	
13				235	255	270		315
14							285	
15	135		205			260		
16				220			275	
17				225	245			295
18			200		245		270	
19					240			295
20			205		235	260		
21			195				270	
22				225			275	
23								
24								

Table 1: Depths Below Surface of Cultural Horizons

Location								
York 1	150	165		230				
York 2	150	175	195	235				300
York 3	145			240				300
York 4				240		270		
Access -North				240				
Access -Middle	150	175	215	240		270		295
Access - South			200			260	280	
Legacy 1			195					295
Legacy 2					255			
Legacy 3						270		
Legacy 5					250		280	
Legacy 8			195		250			
Festival 3W		185						
Festival 3H		180						
Festival 5L						270		
Festival 5S							285	
Festival 5H	155							
Festival 6W			200					
Festival 6H		170						
Festival 9L			185					

Table 2: Depths Below Surface of Cultural Layers Recorded during Previous Projects

York = York Avenue Extension (Quaternary 1989)  
 Access = Forks Access Project (Quaternary 1999)  
 Legacy = Legacy Estates Project (Quaternary 2000a)  
 Festival = Festival Park Services (Quaternary 2000b)  
 (W = Water; H = Hydro; S = Sewer; L = Land Drainage)



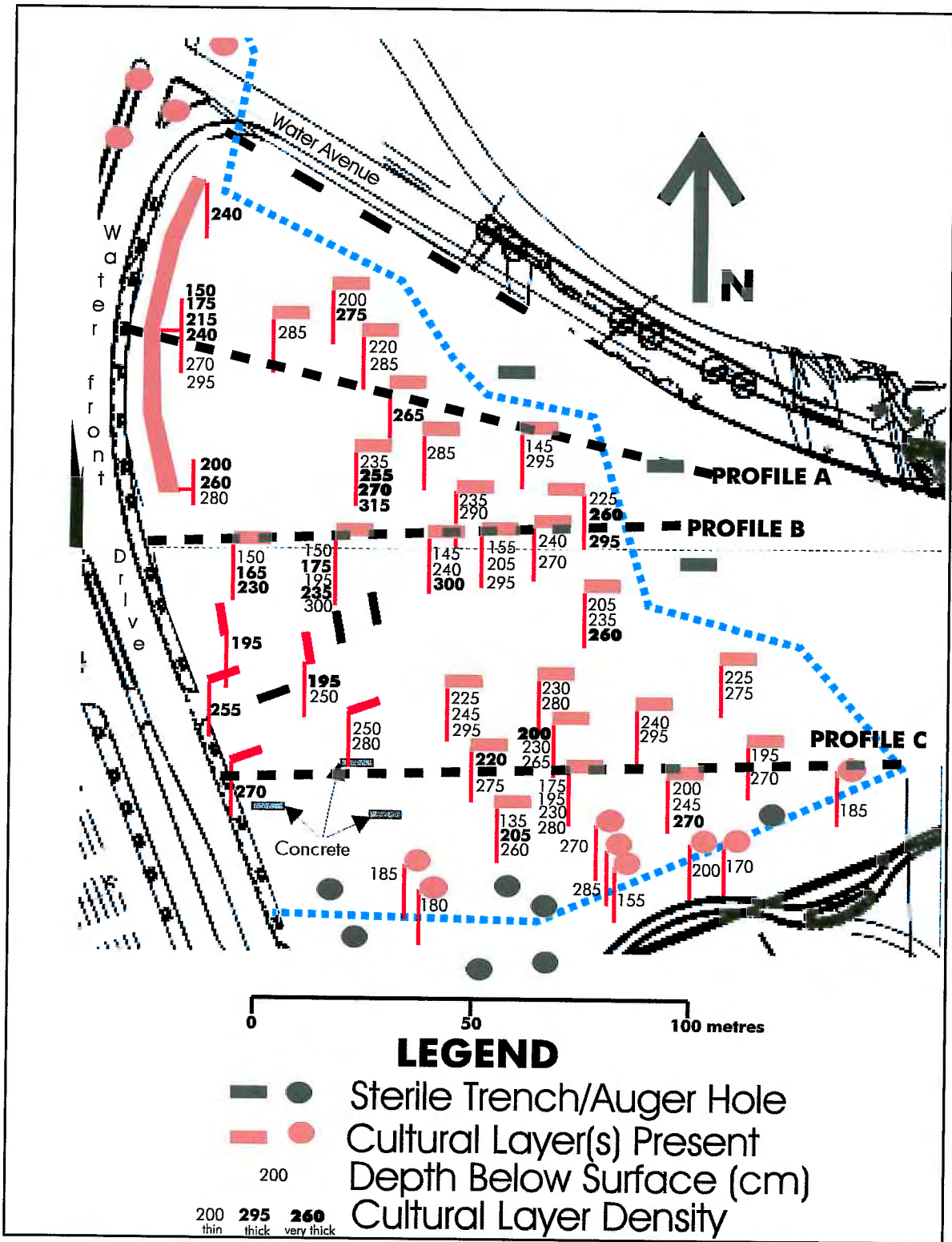


Figure 2: Composite Map of Cultural Horizons

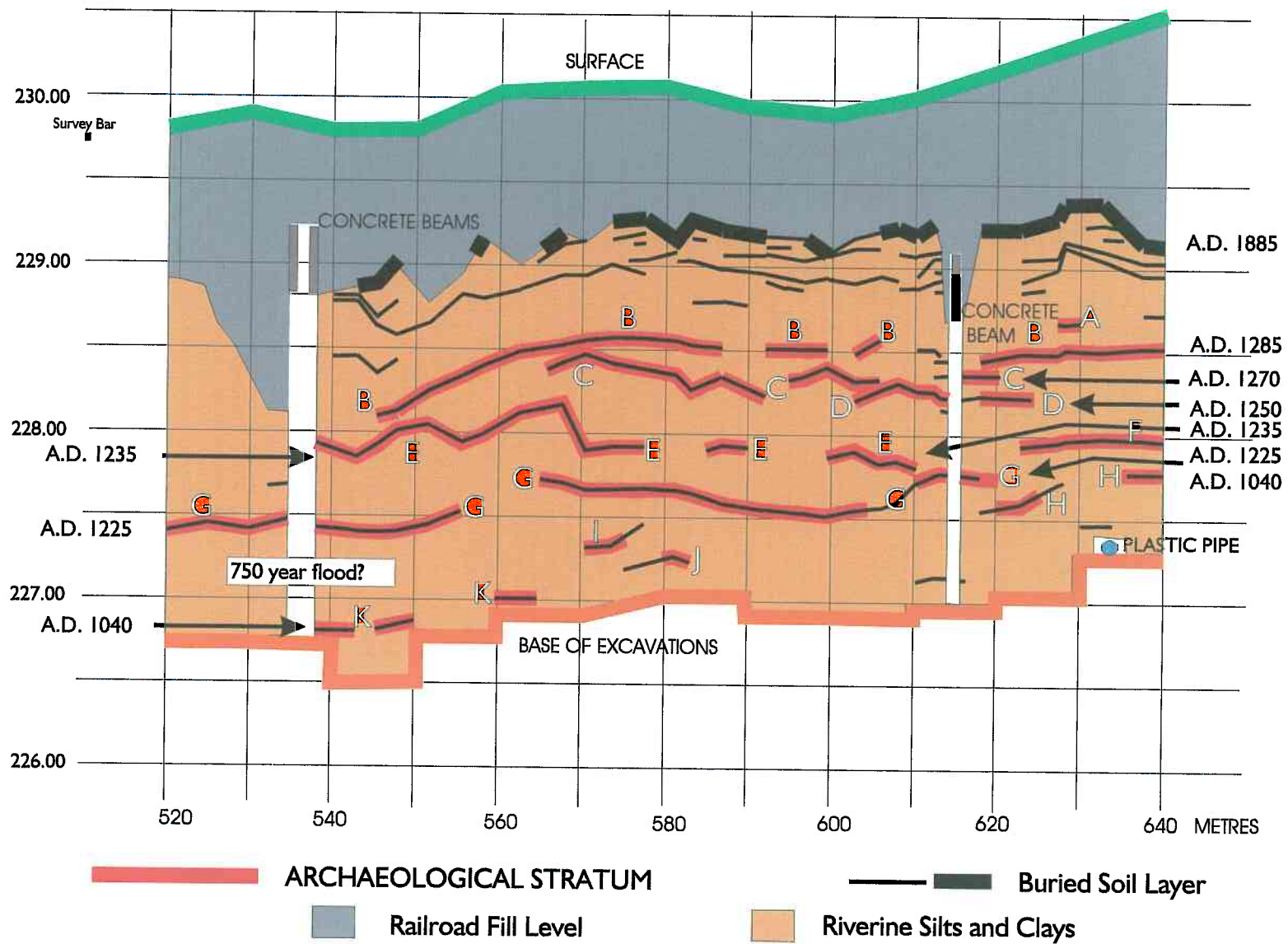


Figure 3: Stratigraphic Profile Showing Cultural Layers on East Side of Waterfront Drive (Quaternary 1999)

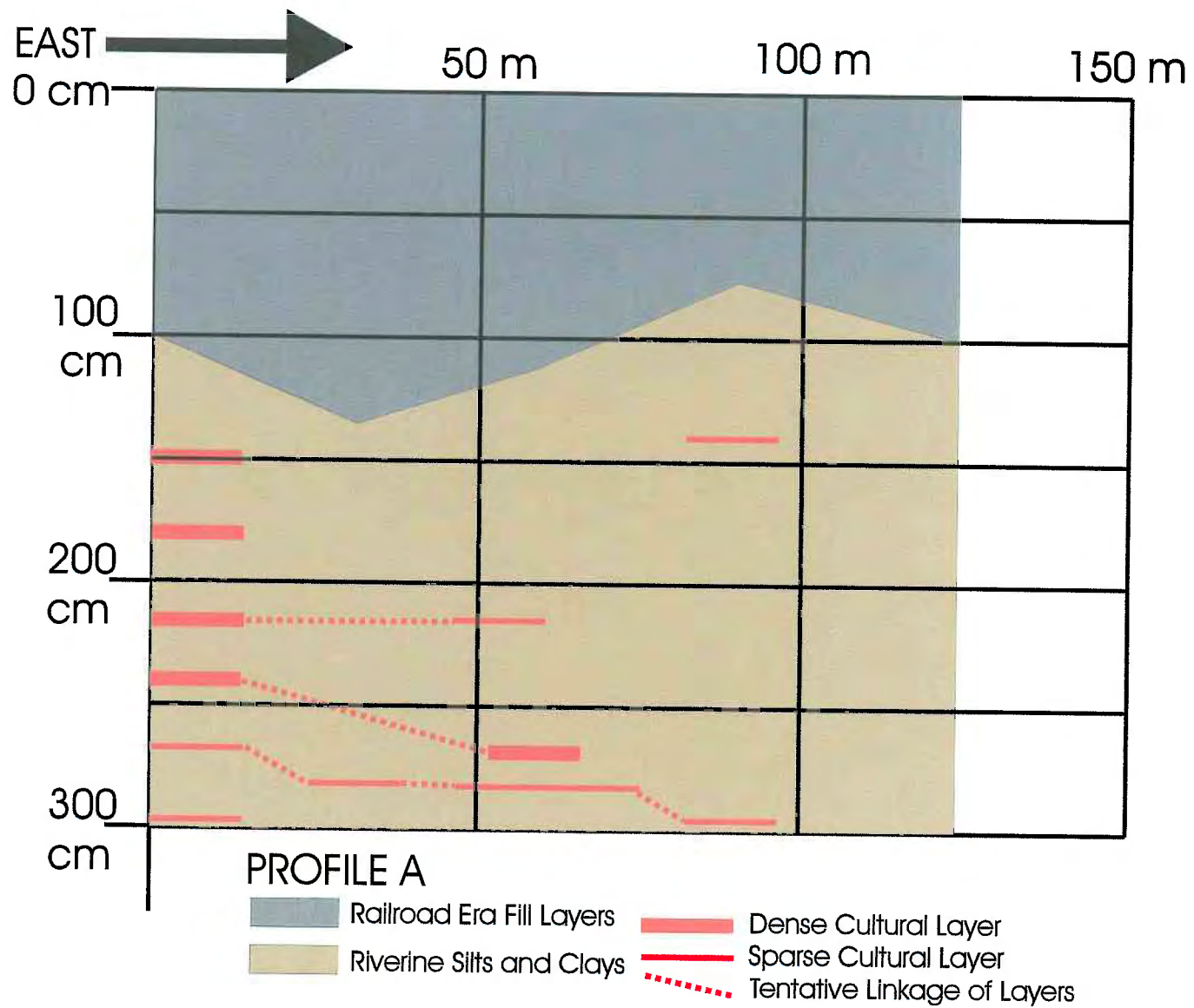


Figure 4: Stratigraphic Profile Showing Cultural Horizons along Transect A

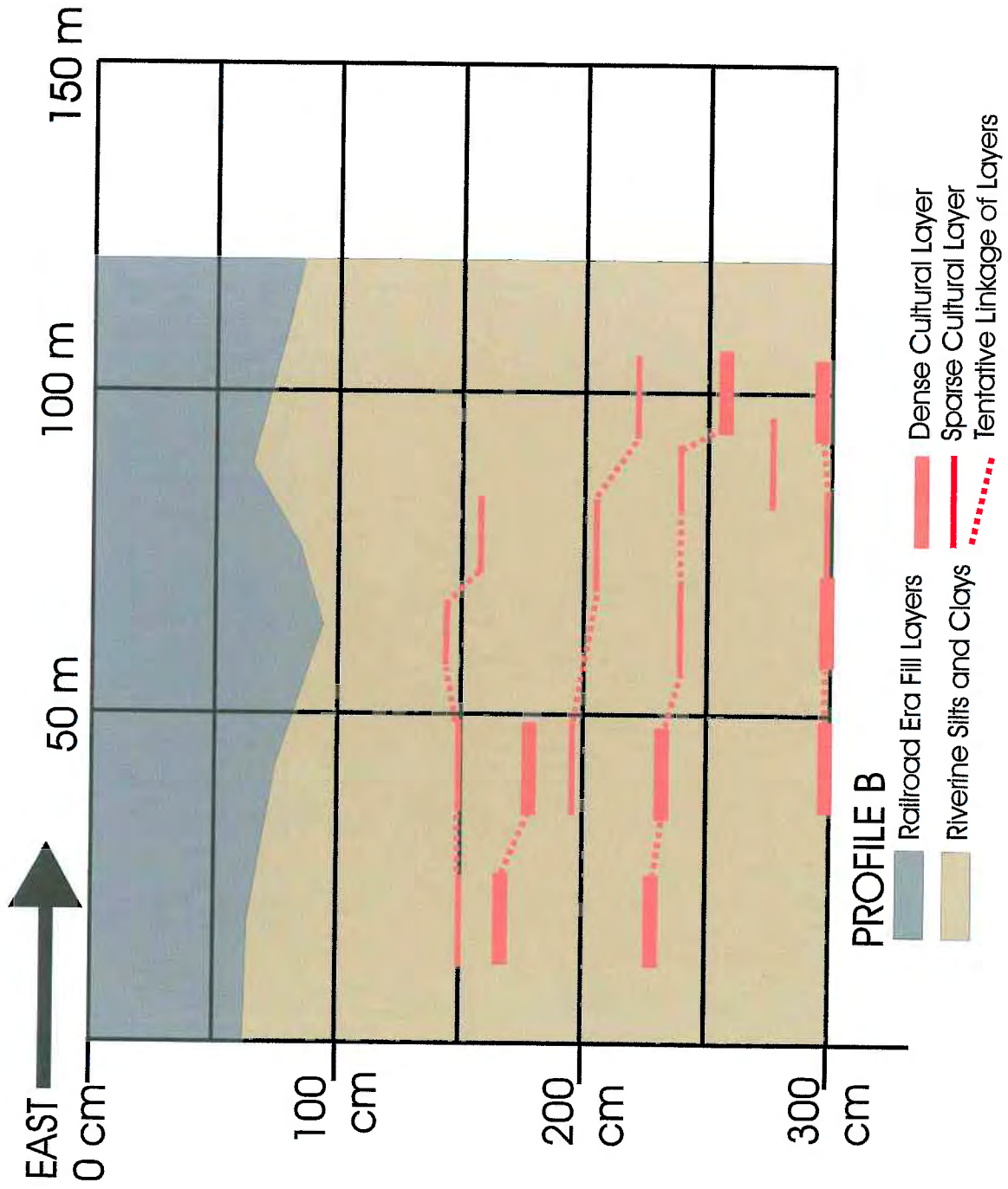


Figure 5: Stratigraphic Profile Showing Cultural Horizons along Transect B

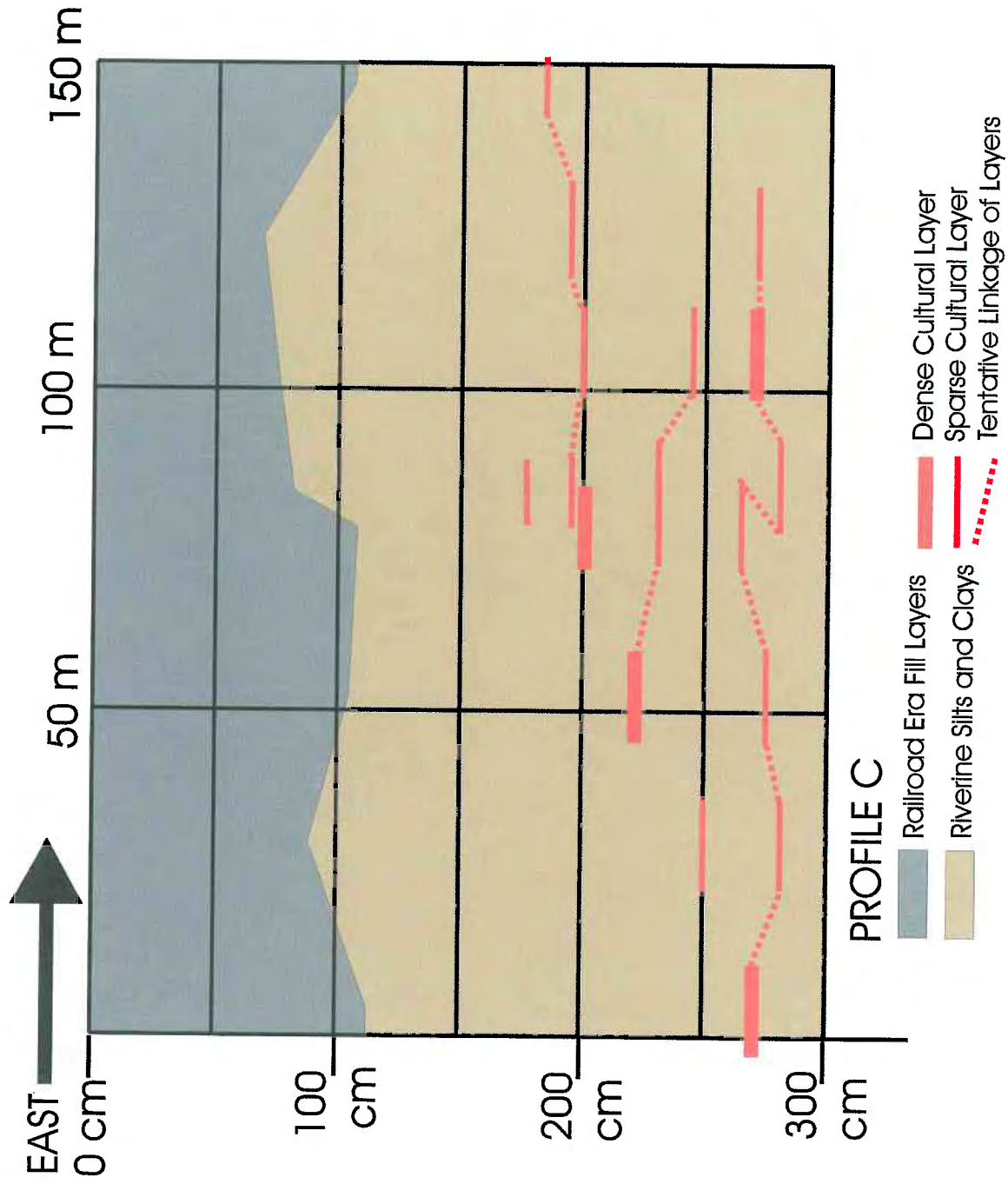


Figure 6: Stratigraphic Profile Showing Cultural Horizons along Transect C

### 3.0 CULTURAL DATA

Due to a backlog in the laboratory from other earlier Quaternary Consultants Ltd. projects, the laboratory processing of the recovered cultural resources has yet to be undertaken. There is a large quantity of artifacts recovered from the museum site. The methods of recovery, which entailed bulk retrieval of the encapsulating soil matrix, means that considerable laboratory time will be required before a final analytical report can be compiled. The thicker, denser cultural layers contained thousands of artifacts in the excavated matrix. It is estimated that a minimum of 35,000 artifacts were recovered from the 51 recorded occurrences of cultural horizons (Table 1). The final number will not be known until the laboratory processing and computer cataloguing is completed.

Some initial statements can be made, based upon observations during the 2003 assessment program and the previously known data from earlier projects. The artifacts observed during the recovery process, which was constrained by sub-zero temperatures, included fragments of earthenware cooking and storage pots, lithic tools and the flakes resulting from tool manufacture, and large quantities of faunal remains resulting from food processing and cooking of harvested fish and animals. Field identifications included bison (*Bison bison*), deer (*Odocoileus* sp.), beaver (*Castor canadensis*), rabbit (*Lepus* sp.), catfish (*Ictalurus* sp.), freshwater drum (*Aplodinotus grunniens*), sucker (*Catostomidae*), etc. With the recovery techniques employing hand and trowel retrieval, all artifacts larger than 1 centimeter were individually handled. However, due to encrustation of damp soils, the diagnostic decorative patterns on the diagnostic earthenware sherds could often not be seen and must wait for laboratory processing.

All occupations result from seasonal and/or short-term visits by hunting and gathering societies which included this area within their seasonal round. The reasons for camping at The Forks area are varied:

- ◆ fishing. Catfish were harvested to augment the fat content in the diet to counterbalance the lean meat obtained from bison and deer. Also, fishing during spawning runs enabled the people to obtain a large source of food during a short period of time;
- ◆ plant harvesting. The riverine gallery forest habitat would contain food resources that are not present in other areas. The types of food plants and medicinal herbs available would depend upon the season, i.e., berries and nuts in the fall.
- ◆ transportation routes. The Red and Assiniboine River connect to many other regions;
- ◆ trading and meeting. As a function of the junction of the two rivers as a transportation nexus, groups would often meet here. The earliest documented evidence of such a trade meeting occurs near the north bank of the Assiniboine where peoples from the north, south, and west camped together approximately 3000 years ago (Kroker and Goundry 1993, 1994). One of the artifacts recovered from this archaeological horizon was a lithic knife made from a type of stone which is only found in the Texas Panhandle (a distance of approximately 2000 kilometres).

As the peoples who came to The Forks traveled throughout the seasons, their material culture was portable. The largest domesticated animal was the dog which, using a travois or packs, could carry some of the possessions. However, all amenities, tools, and household implements had to be either small enough to be carried or, like tipis, could be constructed from materials found at optimum camping spots. The artifacts that remained behind when the people moved on consisted of broken, discarded, or lost

lithic tools, the lithic debris from the manufacture of new tools, the broken sherds of earthenware cooking and storage pots, broken bone tools, and the multitudinous faunal remains (mammal bones, fish bones, and clam shells) from the harvested food. While the preservation of bone artifacts is good at this location, other organic artifacts such as wooden tools and tanned hide clothing do not preserve.

One of the most important cultural horizons dates to A.D. 1300 (Horizon B on Figure 4). Oral history, passed on from generation to generation by the Elders records the occurrence of a major Peace Meeting at The Forks. Sid Kroker of Quaternary Consultants Ltd., then acting as the Site Archaeologist for The Forks Renewal Corporation, was informed of this event by two Elders in 1990. During the impact assessment for The Forks Access Project in 1998, archaeological evidence of this major event was located (Quaternary 1999). The Elders had stated that nine different First Nations met at The Forks a long time ago—they estimated about 500 years ago. The archaeological evidence consisted of diagnostic earthenware from areas that are now known as Minnesota, North and South Dakota, southwestern Manitoba, the interlake area of central Manitoba, the Boreal Forest area east of Lake Winnipeg, and the Lake of the Woods area of western Ontario. Based upon the climatological interpretation of the flood sequence data, it would appear that the climate became considerably wetter and cooler, resulting in changes to animal territorial patterning. This change would have ramifications to food procurement activities by hunting societies, probably resulting in encroachments of recognized hunting territories. As a result, the affected groups convened a Peace Meeting for adjudicating potential conflicts for an area approximately the size of France. Radiocarbon dating of bison and deer bones from the food resources yielded a date of A.D.  $1285 \pm 60$ . The importance of this meeting is illustrated by the fact that it is still part of the oral history of First Nations peoples, 700 years after the event.

Another important fact noted by the Elders is that the area was considered as a "meeting place" and, by implication, was not deemed to be for the exclusive use of any specific group. Thus, the area has not been considered by First Nations peoples as a "sacred area". Neither this project, or any of the preceding projects in the vicinity, recovered any evidence of human interments. All of the artifact evidence indicates moderate to short-term occupation by nomadic hunters and gatherers who came to this location for food procurement or to meet and to trade.

## 4.0 IMPLICATIONS FOR CONSTRUCTION

Given that the majority of the area proposed for the location of the Canadian Museum for Human Rights contains cultural resources buried below the surface, some degree of impact from construction will likely occur. The extreme eastern portion of the area (Figure 1) has no archaeological resources and those that occur on the eastern periphery of the culturally significant area are thin. The type of construction as well as the location of sub-surface components will determine the degree of impact and the resultant necessary mitigative actions.

The least impact would occur with the structure(s) built at grade, supported by piles, either friction piles or rock-socketed piles. As the highest archaeological layers occur at depths of approximately 150 centimeters, there would be sufficient space for pilecaps and grade beams below grade, with the ground floor occurring at ground level. The impact resulting from the drilling of the holes, either for seating driven piles or for poured piles, can be mitigated during construction by employing an archaeologist to recover all cultural material excavated from each of the drilled holes.

In portions of the site, especially where the uppermost cultural levels occur at depths of 200 centimetres or greater, a crawl space could be constructed under the ground floor of the structure without additional impingement upon the archaeological resources.

If the central portion of the site is chosen for major sub-surface excavations, costs for archaeological mitigative removal of the cultural deposits could be extensive. Given that many of the test trench locations had three cultural layers, the mitigative activities would require significant lead time to excavate all layers within the proposed depth of impact. Over a large footprint, this would entail many person/months of time, as the excavation would need to maintain professional standards for site documentation and artifact mapping during hand excavation. Alternatively, a method of block removal of the cultural layers within the building footprint could be developed. This would diminish the required amount of lead time but would be equally expensive as it would require the same number of person/months for off-site excavation of the relocated soil blocks, as well as the cost of removing the cultural resources *en bloc* from the construction site to an auxiliary facility.

In all cases, all of the recovered archaeological material would need to be laboratory processed, identified, catalogued, and analysed to comply with the regulation of the Manitoba Heritage Resources Act. Based upon the quantities of artifacts recovered from adjacent projects with multiple cultural layers, i.e., 95,000 from the Forks Access Project (Quaternary 1999), a full-sized footprint excavation through two or more cultural layers would result in the recovery of several hundred thousand artifacts. Thus, between the cost and time requirements of the mitigative archaeological activities on the building site plus the concomitant laboratory work and report preparation, mitigative costs could be large if the structure(s) with considerable sub-surface components are located over dense concentrations of cultural resources.



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