

2T80 : Backhoe Trench Monitoring,
Fort Langley National Historic Park,
20 July 1993

by

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Introduction

At the request of the superintendent of Fort Langley National Historic Site, the westernmost extension of the site boundaries was subjected to subsurface testing by backhoe on 20 July 1993. The area tested is bounded on the south by Mavis St., on the east by River Road, on the north by the CPR tracks and on the west by private properties fronting Church St. in Fort Langley. (See Fig. 1).

The purpose of the subsurface testing was to determine the nature and extent of historic and prehistoric strata present in the area, if any. The results of this testing will be used to determine the future development of this section of the national park property.

Methodology

Grounds personnel of Fort Langley National Historic Park provided a small Bobcat backhoe equipped with a 50 cm. wide bucket to dig the test trenches. Trenching was accomplished under the direction of S. Copp, a consultant under contract to the Canadian Parks Service, upon a purely judgmental sampling design. No stratified sampling design was implemented due to constraints of time as only a portion of a single working day was available for the testing.

Three test trenches were excavated. Trench A (2T80A) was located in the southwestern portion of this area. This location was selected due to the surface presence of two depressions, both measuring about 2.0 metres in diameter, near the park boundary. The 50 cm. wide trench was excavated between the two depressions eastward, or downslope, for a distance of 7.4 metres. Trench B (2T80B) was a 50 cm. by 9.5 metre unit excavated in the northwestern portion of the site area. Trench C (2T80C) was located in the northeastern portion of the site, across the marshy streamlet which bisects the site area and adjacent of the western edge of River road. (See Fig. 1).

All three locations were selected in order that a cross-section of the subsurface strata could be examined from the highest point of land downslope towards the rivulet and marshy area which extends from the southeast corner of this lot north towards the railway tracks. It is assumed that the marshy area and rivulet represent a geomorphological situation which pre-dates historic occupation of the area although this may be a wholly erroneous assumption as a check of the 1862 McColl Plan provided no information about the drainage situation in this area.

Excavations were conducted by observing the nature of deposits removed, bucketful by bucketful, and retrieval of

Artifacts from the backdirt piles. Artifacts recovered were carefully examined for evidence of the type of soil clinging to them in order to place them in the correct cultural strata from each trench. Recording of exact provenience was not possible due to time constraints, nor were soil profiles recorded as each trench was backfilled almost immediately.

Results of Trenching:

Trench A (2T80A)

Trench A measured approximately 50 cm. wide, by 7.4 metres long by a maximum depth of ca. 2.0 metres. The westernmost, upslope subsurface deposits consisted of ca. 1.0 metre of hog fuel (wood chips and sawdust) underlying the sod layer. This stratum extended approximately half-way eastward along the trench, gradually tapering upwards towards the sod. Of note at the base of this stratum about 2.0 metres east and ca. 1.0 metres below surface was a large log measuring ca. 0.75 metres in diameter. The log rested upon the surface of an underlying stratum of medium to light-brown sandy-loams to sandy-clays and probably originally served as a containment barrier for the deposition of this material.

No artifacts were observed in the hog fuel layer and it is assumed that it represents early 20th century land-altering activities. The presence of an active sawmill operation several hundred metres to the west of this area suggests that this material was deposited as a result of industrial activities. It is not known if this stratum extends further westward to underlie the 20th century homes along Church St.

The underlying stratum of medium to light-brown sandy-loams and sandy-clays extended to a maximum depth of about 1.5 metres below surface. Recovered from this stratum were a number of late 19th century to early 20th century artifacts. These included: fragments of blue transfer-print ceramics dating to the 19th century; fragments of a white ceramic jar base which exhibits a red backstamp with "MEDICINE H. . ." imprinted indicating a post-1896 date of manufacture; a base of a three-piece moulded bottle; miscellaneous glass and ceramic fragments; portions of a clockwork mechanism complete with intact winding key; and metal wood stove collar fragments exhibiting the number "117" on a decorative section of collar. A complete example of this type of stove is currently on display in the antique store located on Mavis St. According to the label attached to this iron and nickel free-standing wood burning stove with the number "119" moulded onto a section of collar, it dates to at least A.D. 1910.

A single small, quartzite prehistoric unretouched flake was recovered from this stratum as well. Unfortunately this last artifact was misplaced during the operations and has been lost.

The basal stratum consisted of grey sands to waterlogged sandy-clays at a depth of about 1.75 to 2.0 metres below surface. A few fragments of metal were found extending down into this waterlogged deposit indicating late 19th or early 20th century disturbance to this depth. Excavations were terminated at about 2.0 metres below surface when the water table was reached.

Trench B (2T80B)

Trench B measured 50 cm. wide by 9.5 metres long by about 2.0 metres deep and was located in the northwestern portion of the site area under investigation. The westernmost, or upslope, portion of the trench revealed coarse grey sands immediately underlying the sod layer. However, the subsurface deposits changed to a medium-brown sandy-loam with lenses of grey sands to a depth of almost 2.0 metres below surface at about 1.5 metres eastward of the beginning of the trench. (All trenches were excavated from the highest upslope portion of the landscape downslope towards the marshy ground) .

Basal and side fragments of a single made-in-the-mould dark green bottle were found underlying the sod layer and resting on the interface between the sod and coarse grey sands in the northwestern portion of the trench. This type of bottle dates from the late 19th century to the first two decades of the 20th century.

The medium-brown sandy-loam contained a large quantity of early 20th century artifacts, primarily automotive parts and springs from seats or beds to a depth of about 2.0 metres below surface. Some metal artifacts were observed, but not collected due to their size or the presence of petrochemical sludge (oil) which was still intact or due to possibly toxic substances (ie. an intact automotive battery) .

A 20th century date for this refuse pit is also indicated by the recovery of an intact fruit jar - complete with sealing band and glass sealer. It exhibits "IMPROVED" above "GEM" above "MADE IN CANADA" on the side panel, a "D" enclosed in a diamond maker's mark (Dominion Glass of Montreal, post-1913 A.D.) on the base, and is machine-made with a beaded seal twist top. The glass liner exhibits marks identical to those of the side panel as well as the diamond-d maker's mark. The external screw-band is zinc.

A second taming jar finish fragment was recovered. It does not bear any evidence of a maker's mark, but does exhibit a domed glass sealer, intact rubber gasket ring and metal bail. A machine-made jar of about 10 ounces was also recovered intact, but minus a lid. The base exhibits the diamond-d mark of Dominion Glass (post-1913) as well as an embossed square which indicates a mid-twentieth century date for this artifact.

Five land-mammal long bones were also recovered. Judging by their size and shape they most likely represent domestic animals - either sub-adult dog, sheep or pig.

Downslope of this 20th century refuse pit was a layer of orange-red sandy-loams extending from just below the sod layer to a depth of about 1.5 metres below surface. Not cultural materials were located in this stratum, either of historic or prehistoric dates.

The basal stratum across this trench consisted of coarse grey sands which were sterile of cultural materials.

Trench C (2T80C)

Trench C was a 50 cm. wide by 5.6 metre long by 1.5 to 2.0 metre deep trench excavated into the westward sloping bank of the eastern section of the site area. The soil matrix below the sod consisted of mixed dark organic soils and 20th century road gravels in which the neck finish and partial side panel of an "ORANGE CRUSH" machine-made crown bottle, a piece of styrofoam cup and the sole of a nylon or plastic running shoe were located.

Underlying this 20th century deposit was a stratum of medium-brown to orange-red sandy-loam which was devoid of any cultural material save a large, ca. 1.0 by 1.5 metre by 0.25 slab of concrete which extended into it in the extreme western section of the trench.

The basal deposit consisted of sterile coarse grey sands.

Summary and Conclusions

Three test trenches were excavated to sterile soil in three locations of the westernmost portion of Fort Langley National Historic Park in an area bounded by Mavis St., River Road, the railway tracks and private lots on Church St.

Trench A exhibited late 19th to early 20th century features and artifacts of metal, glass and ceramic. A suggested date for the majority of artifacts encountered is ca. 1896 to the early decades of the 20th century. A single prehistoric flake indicates that aboriginal use was made of this southwestern portion of the examined area.

Trench B revealed materials which date primarily to the time period of ca. 1913 to the later decades of the 20th century and appears to represent a recent refuse dump.

Trench C was comprised entirely of 20th century land-altering activities, most likely associated with the construction and later maintenance of River Road and/or the railway.

Recommendations

The existence of late 19th and 20th century cultural materials in two of the three trenches which extend down to the post- or terminal glacial sterile sands indicates that these areas of the westernmost extent of Fort Langley National Historic Park have been heavily disturbed by EuroCanadian activities. These activities include post-fort period activities most likely associated with the farming community of Fort Langley as well as later industrial and residential activities. Although a single prehistoric artifact was recovered, there was no evidence of more intensive aboriginal occupation of this area of the site.

The evidence gathered from this backhoe testing indicates that minimal additional work is required in this portion of the site. Should this lot be subjected to future land-altering or construction activities only on-site monitoring of any excavations should be required. There is a possibility that intact 19th century or prehistoric materials exist in those portions of the site not impacted by the trenching conducted and reported here, but this is doubtful. No further impact assessment appears to be required besides monitoring of future land-altering activities.

FIG. 1: OPERATION 2T80

