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BATOCHE ARCHAEOLOGY PROJECT: 1977
STRUCTURAL AND SURVEY REPORT
by Paul F. Donahue, Valerie Hall and Neal Putt
1978

Batoche Archaeological Research:
A Report on the 1978 Field Program
by David V. Burley
1980
Batoche Archaeology Project:
1977 Structural and Survey Report
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Abstract

During the summer of 1977 a store, house and associated features were excavated at Batoche National Historic Park as part of a long range research design in which comparable and contrastive socioeconomic complexes are being investigated. Excavation and extensive testing provided detailed and general overviews of the large socioeconomic areas. A separate survey operation clarified ambiguities regarding specific historic complexes and furthered knowledge of prehistoric occupation in the area. In this report, structural and survey data are described and assessed.
The first archaeological field season at Batoche National Historic Park was oriented towards an assessment of the cultural resources (Donahue and Hall 1977). During the following winter, plans for an additional three year research project were developed. This included the design of an archaeological program pertinent to the needs of researchers, planners and those who carry out site development as well as the creation of a computerized data cataloguing system to facilitate data control and analysis.

The archaeological research design established for the Batoche project focuses on three major objectives. These include: general research on human history and prehistory within the park; an evaluation of socioeconomic differentiation within the Batoche settlement; and finally, an investigation of Métis sites and material culture vis-à-vis non Métis sites leading towards a delineation of the distinctiveness of Métis culture within the Batoche milieu. Given these goals, the 1977 field research undertook a continuation of the archaeological survey work initiated in 1976 as well as large scale excavation at two major sites within the Batoche Village proper. The latter included the residence and store of Georges Fisher Jr. and the 1885 residence of the Carrière brothers. For the purposes of this report and future analyses, major sites such as those excavated in 1977 are categorized as socioeconomic complexes. A socioeconomic complex refers to an individual's or company's property within a spatially contiguous and definable area. Such a unit is delineated from historical data and, where property lines are unknown,
through pragmatic decision. For example, in the case of a farm the socioeconomic complex would incorporate the house, barn, outhouse, sheds and all associated features.

The 1977 archaeological field season encompassed 15 weeks and involved 21 people. The crew was broken up into four units, each of which was assigned to a specific project. Neal Putt with one other individual conducted the survey; Terrance Gibson with four crew members excavated the Carriere complex; a similar sized team under Karie Hardie worked on the Fisher complex and, finally, supervised by Valerie Hall, a six person team operated a field laboratory.

All data recovered in 1977 were computerized. A separate report on the artifact analysis will be forthcoming as will a final analytical report following the termination of the project field research. The latter will be directed at both anthropologists/archaeologists and planners/interpreters/engineers. The specific goals of the present paper are to describe and discuss field methodology and to provide a preliminary description of excavation and testing results. As such, the report is largely descriptive with analysis or discussion restricted to structures examined in 1977. Valerie Hall is responsible for the chapter on the Fisher complex while Neal Putt prepared the survey sections. The remainder has been written by Paul Donahue.
Test Excavation Areas in the Village of Batoche

In addition to the detailed excavation of the Carriere and Fisher structures, testing operations were undertaken in four areas of the main village. The objective of this work was to obtain data on the spatial distribution of activity areas, their functions and their relative dates to facilitate future planning. Virtually all areas tested were at one time cultivated. It was assumed that artifacts recovered from the plough zone were greatly disturbed vertically but had undergone minimal horizontal displacement. Also it was assumed that the horizontal distribution and density of artifact types would have cultural meaning. That is, dense concentrations of artifacts which could be spatially isolated were considered to be reflective of past activity areas. This approach is particularly important at Batoche where most buildings were constructed on the Ah-Ae soil interface with no below ground structural components. The extensive surface area of Batoche in conjunction with limited manpower also made testing mandatory.

The four areas tested were the village as a whole, Batoche's blacksmith shop, the nonbuilding areas of the Carriere brothers socioeconomic complex, and the nonbuilding areas of Fisher's socioeconomic complex (Fig. 1). The village and blacksmith shop tests are subsequently discussed while the Carriere and Fisher excavations are left for their appropriate section. Excavation strategies varied in form. Some areas were dug with continuous trenches, others with discontinuous trenches, and one, the village proper, had a
Figure 1. Excavation and test units at Batoche, 1977 (drawing by D. Milton).
series of randomly placed 1 m² units. Units were shovel shaved to below the B soil horizon and the plough zone stratum was distinguished from others in the A soil horizon. All excavated matrices were screened through 1/4 inch mesh. Artifact proveniences were recorded within each lot and spatial and volumetric data were then documented. Such precise detail was considered necessary for the eventual determination of spatial relationships and artifact density variation.

The sampling fraction varied in each area. In the case of the village, limitations of time and manpower precluded extensive testing. Furthermore, only low level inferences were expected from the data thus supporting a decision for restricted excavation. On the other hand, nonstructural areas within the two socioeconomic complexes were given considerably more attention by virtue of their importance to Parks development plans and the relative research value expected of the data.

Batoche Village (21N901A)
A test excavation program in the general village area was implemented to determine the maximum extent of the village, the location of non-use or high-use areas and to corroborate, wherever possible, historic documentation regarding the village plan. These data were considered important for future planning and development objectives.

Prior to excavation, a master grid of 50 x 50 m units was established. Each of the 45 grid units was subsequently divided into 2500 potential 1 m² excavation pits which were to be chosen from a table of random numbers. The sampling fraction was, for the most part, determined by the number of units an excavator could complete per day. This eventually translated into 141 pits within 32 different grid squares.
This area is 0.18 percent of the total sampling universe. It should be pointed out that, although this strategy incorporated random sampling, a number of selective criteria were also employed thus negating its effectiveness for making valid probabilistic statements. For example, if a selected unit was located on a terrace slope or in dense bush it was omitted without replacement. As well, if a unit fell within the perimeters of a known structure it too was not excavated. Finally, to gain maximum spatial coverage, the excavation of alternate units within a grid square, should they be so selected, was ruled out. It was hoped that the preceding approach would provide a scattered testing of a large area as opposed to intensive sampling within a restricted area. As may be noted on Figure 1, this proved to be the case.

Figure 2 depicts actual and possible evidence for structures within the village area based on 1976 data and historic sources. Figure 3 illustrates estimated artifact densities per cubic metre based on the quantity of artifacts recovered from each excavation unit. SYMAP (Dudnik 1976) was used to interpolate artifact density distributions into unexcavated areas thus producing the contour map. Visual comparison of the two figures indicates an extremely close correlation between historically known structural areas and high artifact density levels. In and by itself this is not particularly surprising. However, given the small test sample it is clear that the results are sound. The village perimeters are depicted by high artifact density areas and the intervening area, for which there are no historically documented structures aside from Batoche's blacksmith shop, was virtually sterile. More specifically, the commercial area north of the Carlton Trail yielded evidence for the Branconnier house (N4750/E3975), Fisher's house (N4775/E4025) and several other buildings. Batoche's house and associated features to the southwest were also evident.
Figure 2. Approximate locations of structures within the Village of Batoche (drawing by K. Walton).
Figure 3. Artifact density contour map for village test program (21N901A).
Blacksmith Shop (21N902A)
To locate the position of Batoche's blacksmith shop, five trenches 5 m long by 30 cm wide were excavated (Fig. 1). A dense concentration of metal artifacts associated with burnt vegetable matter and a small number of non-metal artifacts occurred in one of the test units (21N901A1230). Although no structural remains were uncovered, testing was too limited to be definitive.

Summary
Both test excavation programs were accomplished effectively and inexpensively within the defined objectives. This type of testing operation should prove useful to future planning operations. As data from other tests and future excavations are added to the data base it should also prove useful as a research tool.
In the May 8, 1886 edition of the Winnipeg Sun there occurs an illustration of two connected frame houses occupied by the Carrière Brothers (Fig. 4). These and Batoche's house were surrounded by a single fence suggesting that the Carrières may have occupied a structure owned by Batoche. Batoche settled on lot 47 in 1873 but did not construct his main house until 1878 (see Payment 1977). The Carrière structures were first photographed in 1885 and, consequently, had to have been built between 1873 and 1885. They remain standing in a ca. 1910 photograph and were probably dismantled in 1917. The area is known to have been cultivated by a local resident in the 1930s (Fig. 5).

Historic photographs and sketches show a pair of one and a half storey gable roofed structures connected by a flat roofed shed (Figs. 4, 6). The lengths of the three structures were in a ratio of 8:5:10 from east to west. The north wall of the east building had a recessed central door and two flanking 12-pane windows. Based on door and window measurements of local log buildings (Powter 1977), the door would be about 181 x 0.75 m and the windows approximately 1.14 x 0.65 m. The steeply pitched roof appears to have been shingled and, if so, random width sawn shingles were probably used (Powter 1977:11). The roof overhang was about 35 cm. No chimney was evident. Wall construction and exterior finish could not be determined.

The connecting structure appears to have had outward swinging double doors approximately 2 m in width. The sizes of these doors suggest an equipment or buggy shed. The west
Figure 4. View of Batoche, Winnipeg Sun, May 8, 1886. (arrow indicates two frame houses occupied by Carriere brothers).
Figure 5. Foundation of Letendre house, 1948 (Photograph courtesy of University of Saskatchewan library).
Figure 6. Carrière building with Letendre house in foreground, ca. 1910 (photograph courtesy of Saskatchewan Archives).
structure on the other hand had a single slightly off centre
door in the north wall (Fig. 4) and the west wall had a cen­
tral door flanked by two windows. A smaller window above
the west door provided light for the second storey. As
with the east structure, the roof overhang was about 35 cm
and probably was shingled. Figure 7 illustrates a plan view
of the above characteristics.

According to the Sun illustration legend, the buildings
were of frame construction implying either balloon or post-on­
sill (*pièce-sur-pièce*) structures. The former is character­
istic of modern sawn lumber frame buildings and, as such,
would have been anachronistic in the late 1800s at Batoche.
The latter construction technique includes buildings with
morticed log uprights and horizontal tenoned in-fill logs.
The Batoche rectory and church, respectively built in 1883
and 1884, were of post-on-sill frame construction and repre­
sent the only known examples of this construction form at
Batoche. All other early historic structures in the area
were of end-notched (dovetail and saddle) horizontal log
construction.

The decision to excavate the Carriere brothers' socio­
economic complex was made for a number of reasons of which
some were research oriented and others pragmatic. The
research goals were to focus on a delineation of the mode of
construction and the acquisition of a data set from a resi­
dence of presumably low socioeconomic status. The latter
was inferred on the basis that the Carrières are rarely
mentioned in any reports, they were not known to be part of
the social elite and they appear to have lived in a house
owned by Batoche. Practical considerations for the excavation
were that the whole Batoche socioeconomic complex is even­
tually scheduled for complete excavation and that the struc­
ture occurred in the village, a priority development area.
As well, the proximity of the Carriere and Fisher complexes
allowed excavation crews to be near each other thus facili­
tating logistics and interaction.
Figure 7. Door and window locations within the Carriere building; based on historic sources (drafting by D. Milton).
Structural remains of the Carrière complex (21N11) were located in 1976. In 1977 the structures were completely exposed and associated features were tested. The test excavation program (21N903A) of areas outside of the structural remains was accomplished first. A southwest to northeast oriented grid was then superimposed over the structures for control purposes. Excavations within the structures were undertaken by shovel-shaving and troweling. All soil below the sod was sieved through 1/4 inch mesh screens.

Excavation Results
Testing Operations (21N903A)
The test program was directed at locating features associated with the Carrière socioeconomic complex (Fig. 8). This consisted of excavating a series of 30 cm wide contiguous trenches varying between 5 and 42 m in length. Trenches were parallel to each other and separated by 4.7 m. Trenches were not excavated through the Carrière structure. Subsurface features which were isolated included an ash lens (N4550/E3921), a rock pile (N4540/E3930), a midden (N4550/E3924), a posthole (N4520/E3942) and a clay pad (N4540/E3954). The ash lens and midden were encompassed by a high artifact density area. In contrast, the clay pad area yielded few materials. Other high artifact density areas were not readily related to specific subsurface features. As well, a low density area separated the Carrière brothers' structure from Batoche's house (see Figure 9).

Excavation of the Carrière Structure (21N11)
As a whole, the stratigraphic profile within the structure consisted of sod (5-8 cm) overlying a stratum of plaster and rubble (5 cm), a clay lens (1 cm) and a dark brown to black
Figure 8. Carriere socioeconomic complex, test program and structural operations (drawing by K. Walton).
Figure 9. Artifact density contour map of Carrière socio-economic complex (21N903A).
buried A soil horizon (10 cm). The latter proved to be the basal cultural level and the level on which foundations were laid. No surficial preparation of the soil aside from sod removal occurred when the structures were built. The ground appears to have been sufficiently stable, level and well-drained thus allowing the foundation to be placed directly on it.

West structure foundation remains consist of two single course mortar and masonry sections on the north and south sides (Figs. 10, 11). These sections were 20 to 30 cm wide and between 15 and 20 cm high. Most of the locally available fieldstones used in construction were limestone; a few were of granite. A small number of stones were minimally dressed.

Immediately east of the masonry, remains consist of two spruce (Picea sp.) sleepers (21N11N70, 21N11N77) at right angles to the long axis of the structure. Each was comprised of two logs, one atop the other, with the lower log being partially excavated into the buried A soil horizon. One sleeper (21N11N77) was in a rectangular depression packed with plaster rubble and clay. The upper log was badly rolled and virtually indistinguishable from the bottom one. A log section (21N11N78) which lay to the east and at a right angle to the above noted sleeper did not intersect with its upper portion. It may, however, have originally abutted it as indicated by the possible notch on the west end. Deterioration of these wood remains made solid inferences impossible.

The second sleeper (21N11N70) was similar to that just described in that one log lay atop another and they were neither nailed nor pegged together (Fig. 12). The lower log was again dug partly into the buried A horizon although the plaster rubble and clay fill was absent. A log perpendicular to this sleeper was tied into it by a V-notch and angle cut. This remnant may represent portions of the sill log. A spruce (Picea sp.) board fragment (21N11N72) nailed to the
Figure 10. Archaeological features of the Carriere socioeconomic complex (drawing by D. Milton).
Figure 11. Single course stone foundation, west structure, Carriere socioeconomic complex (Photograph by T. Gibson).
upper log may have been part of a floor. However, since floors were "...invariably independent of walls and foundation" (Powter 1977: 11), such an interpretation is rather tentative. Two metres northeast of the sleepers were two 4 cm thick hewn logs (21N11P97, 21N11Q92) that rested on the buried A horizon (Fig. 10).

Parallel to the east wall of the Carrière structure were three 1 m long x 15 x 5 cm squared logs (21N11N74-76) on the A horizon (Fig. 10). The logs were end-on-end and spaced 3 to 5 cm apart.

The uncribbed U-shaped earthen cellar within the building was 2.4 m in diameter and 1.4 m deep. The cellar was trenched prior to its complete excavation. Refuse within the cellar was quite recent. For example, a ceramic item manufactured in 1958 was found in the lower fill level and part of a piano occurred in the upper level (Fig. 13). The lowest layer of disturbed soil was sterile.

Two stone concentrations (Fig. 10) to the northeast were probable west side corner supports for the eastern building segment (21N11T). Beneath the northwest cornerstones was a small wood fragment. A 2 cm thick charred board remnant to the west was associated with an ash concentration (21N11-P106). The board did not, however, appear related to the structure. Beneath the southwest cornerstones were two pieces of wood that did not intersect (Fig. 10). It would appear that the wood remnants beneath the cornerstones were not structurally significant. Possibly delineating the south wall of the east structure was a 1 m long discontinuous pattern of clay, wood and nails (21N11T22). The south wall line was also indicated by two spruce (Picea sp.) transverse sleepers 3 to 4 cm thick by 1 m in length (21N11T23-24) (Fig. 10). The probable east wall of the east building segment was represented by a 2 m long by 5 cm thick discontinuous sill (?) log and assorted wood fragments of spruce (Picea sp.).
Figure 12. Carrière socioeconomic complex; sketch of sleeper in west structure (21N11N70) (drafting by D. Milton).

Figure 13. Profile of trench through Carrière complex cellar (21N113) (drawing by D. Milton).
Excavation of the Carriere structure did not resolve the question of its construction style because of the insufficient remains. The three connected structures may have been built at the same time although the incomplete masonry foundation seems to suggest otherwise. Assuming staggered construction dates, it is reasonable to suggest that the masonry structure and cellar were built first and at some later date the remainder was added to it (Fig. 14). Given this interpretation, the three squared logs (21N11N74-76) could be the fallen remains of a base for three sawn gable uprights that extended from the top of the east wall to the roof line. Floor and ceiling joists for the masonry portion would have run northwest to southeast and those for the addition from northeast to southwest. The structure was probably plastered inside, if not also outside, based on the thick plaster rubble. Sawn rather than willow branch lathing was used. No room dividers were found. Based on the presence of a cellar and a solid foundation, the west segment (21N11N) probably served as a residence.

The east building would seem to have been constructed next and, like the western building, would have had northwest to southeast oriented floor and ceiling joists if a wood floor had been present. The absence of plaster or lathing suggested a simple log building. The building function was unknown although the north facing door and window sizes indicate a carefully built structure that was not used, for example, as a barn. Perhaps it served as a store, workshop, residence or bunkhouse.

The connecting shed would have been built last. It seems likely that the north and south walls were simply nailed to those of the two main structures. If used as a buggy shed or workshop, it probably had a dirt floor.

The buildings were probably dismantled along with Batoche's house in 1917 and the majority of the remains taken elsewhere.
Figure 14. Possible construction sequence for Carrière buildings (drafting by D. Milton).
The condition of the structural remains and the absence of a plough zone indicate that the building site had never been ploughed. Furthermore, a 1958 ceramic shard with manufacturer's mark in the cellar fill indicates that a 60 cm deep depression must have been present until at least that time. Artifacts in the cellar, therefore, could have been from virtually anywhere and were of dubious interpretive value.

Associated Features

*Rock cluster (21N11R)*
A cluster of rocks was uncovered northwest of the Carrière complex during testing operations. Further exposure revealed approximately 40 fieldstones 10 to 25 cm in diameter (Figs. 20, 21). Lack of burning or other cultural disturbance leads to the conclusion that it is a fortuitous pile, perhaps the result of field clearing operations prior to cultivation.

*Midden (21N11U)*
Northwest of the Carrière complex was a 3 x 1 m ash and artifact concentration 10 cm thick. The feature was considered a midden. Future artifact cross-mending and analysis may relate it to a specific complex and time period.

*Depression (21N11V)*
West of the Carrière complex and 1 m lower on the terrace edge was a 1.3 m diameter by 80 cm deep pit (Figs. 10, 15). The top of the pit was approximately 30 cm beneath the sod. The base of the pit and the lower wall portion were packed with bark and wood chips to a maximum thickness of 10 cm. The abundant artifact assemblage within the depression probably reflects its final function as a refuse pit.
Figure 15. Cross-section profile of depression feature (21N11V) (Photograph by T. Gibson).
Clay pad (21N903A0513)

A few meters northwest of the Carrière complex was a thin clay pad roughly circular in form and measuring 2.5 to 3 m in diameter (Fig. 10). The pad was located below the A horizon. Five post remnants one of which was poplar (Populus sp.), were associated with the pad; four were in a line and less than 20 cm from each other, the other was 2 m to the north. The function of this feature is unknown.

Ash Concentration and Shingle Cluster

Northwest of the west structure occurred a small ash concentration (21N11P106) (Fig. 10). Whether or not it was related to the Carrière occupation is indeterminable. Adjacent to the ash concentration was a small cluster of wooden shingles (21N11P113) (Fig. 10).

Summary

The Carriere Brothers' house, probably part of Batoche's holdings, was likely constructed between 1873 and 1885 and dismantled in 1917. Rubble deposited in the cellar dated to as late as 1958. Whether the structure was of balloon frame, log-on-log, or pièce-sur-pièce construction was not determined. In historical context, however, horizontal log construction with dovetail corner notches was most probable.

With respect to future considerations, it is clearly necessary to undertake further research before the area can be properly interpreted. At this time only a small amount of data is available. A minimum requisite would be to continue sampling the area by working north toward Batoche's house and, preferably, by test excavating at closer intervals. Large scale stripping would also be appropriate, but only if plough zone data were controlled for.
The store of Georges Fisher Jr. was located at the west end of the commercial row of structures on the Carlton Trail (Figs. 16, 17). Of its historical background, Payment (1977: 57) states:

...Georges Fisher Sr. had opened the store at Batoche in the summer of 1883. It was managed by his sons, Georges Jr. and Joseph. The store was described as 25' x 30' of logs...

The store was a two storey gable roofed structure with horizontal weatherboard siding (see Figs. 16, 17). It had a central door and flanking windows on a south facing front wall with two flanking windows also located on the front wall second storey. Near the southern end of the gabled roof was a corbelled clay brick chimney. Although it cannot be directly determined from historic photographs, it seems likely that the store was of log construction with dovetail notches; this technique was the standard Métis construction form for external walls and outbuildings (Powter 1977). It also seems probable that the interior and exterior walls were chinked with mixed clay and straw with a willow lathing and plaster subsequently applied. Exterior wall siding would then have been put up.

Following Middleton's capture of Batoche, his forces "...entrenched themselves in a zareba around Fisher's, Boyer's and other buildings to the rear" (Payment 1977: 58). Perhaps because it was the final Métis council house, Fisher's dwelling, which was located 36 metres behind his store, was singled out for destruction. Fisher, however, returned to Batoche
Figure 16. Village of Batoche, from Winnipeg Sun, May 8, 1886. (arrow indicates Fisher's house).
Figure 17. Batoche Village, ca. 1886 (Photograph courtesy of Saskatchewan Archives).
following the insurrection and either rebuilt his house (Payment 1977: 96) or repaired the original dwelling. As well, by 1886 he had added a lean-to to the west wall of the store.

Exactly how long Fisher continued to operate his store at Batoche is not known, although Payment (1977: 96) notes that evidence for his presence in 1902 does exist. In any case, shortly after the turn of the century it would appear that Fisher closed his shop with the buildings probably remaining intact until approximately 1915 (Payment 1977: 123).

Fisher's store was first tested during the 1976 field season and the corners of an estimated 9 x 6.3 m structure were isolated. The 1977 excavations were focused on a more complete examination of this structure in addition to an intensive testing program within the perimeters of the Fisher socioeconomic complex. The boundaries of the latter were defined by the Carlton Trail on the south and grid lines N4800, E4050 and E4000 established for the Batoche village master grid (Fig. 18). Because the Fisher complex included both a store and residence, it was given precedence over other structures within the village.

The initial objective for the 1977 excavation program was to sample the area north of the store structure as extensively as possible. This first consisted of a small random sample of isolated excavation units (21N901A) which was followed by a more intensive trenching program (21N904A). Selected features uncovered in the testing operations were then more fully exposed.

Prior to the main store excavation, a 1 metre grid system was established over the site. Units within this grid system were excavated by first shovel-shaving the overburden which was not screened. Once the overburden had been removed, trowels were used to expose features and associated matrices were screened through 1/4 inch mesh. This excavation
Figure 18. Fisher socioeconomic complex boundaries, excavation units and archaeological features (drawing by D. Milton).
program was directed toward a determination of building construction techniques, relative feature dates based on artifact associations, primary and secondary feature functions, feature reuse after the structure had been abandoned and, finally, artifact patterning.

**Testing Operations within the Fisher Socioeconomic Complex**

*Random Sample Test Program (21N901A)*

Seven 1 m$^2$ units were selected for excavation using a table of random numbers. Five of these units were located within a single block of the Batoche master grid (N4750 to N4800, E4000 to 4050) which was north of the store structure (Fig. 18). Within this block, this accounts for a 0.2 percent sample. Although it was recognized that only limited inferences might be drawn, it was hoped that the sampling technique would eliminate any bias towards excavation of obvious surface features.

For this northern area, the plough zone normally extended to about 15 cm below surface. The B soil horizon underlying the plough zone terminated at approximately 25 cm below surface. Artifact concentrations were most dense within the plough zone and diagnostic artifacts provided relative dates for the area sampled.

Three of the five test units (21N901A043, 21N901A044, 21N901A045) are significant with regard to their excavated assemblage. One (21N901A044) contained a number of artifacts including hand tooled bottle finishes and ceramics which are indicative of both a pre 1900 period and a later occupation. Later, more extensive excavation within this area showed the unit to fall within the boundaries of a possible refuse pit (21N44E). Several of the artifact fragments from the initial unit were cross-mended with specimens from the more extensive feature excavation.
The remaining two units singled out for discussion in the north grid area also had assemblages indicative of a pre 1900 period. In one (21N901A045), mould blown and Ricketts-type mould bottles were recovered. The other (21N901A043) also included mould blown bottle glass as well as a ceramic shard dating to ca. 1892 and a reworked fragment from a bottle base. Although neither of these units was further excavated in later operations, based on the temporal significance and density of associated artifacts, they should eventually be re-examined.

Both of the excavation units outside of the northern grid block (Fig. 27) provided limited cultural materials. This may be surprising given their more adjacent position to the main store. Within these units, the plough zone extended to 10 cm below surface while the B soil horizon continued to about 35 cm below surface. Unlike the more northern excavation units, those artifacts which were recovered most often occurred in the B horizon.

Trenching Test Program (21N904A)
Further testing of the Fisher socioeconomic complex was accomplished through the excavation of 52 trenches (5 m x 30 cm) running in 13 parallel rows (see Fig. 27). Trenches were excavated in a checkerboard fashion so as to intersect any possible features such as Fisher's house or outbuildings. Although extensive structural remains for the residence were not located, a possible cellar feature (21N44E) and several middens (grid co-ordinates N4795/E4005, N4790/E4030, N4780/E4010, N4780/E4020 and N4770/E4020)(Fig. 18) suggest its presence in the northern section of the complex. This interpretation is further strengthened when an artifact density contour map is plotted using SYMAP (Fig. 19). While the northern sections of the sampled area have heavy concentrations of artifacts, the area supposedly intervening between the store
Figure 19. Artifact density map of the Fisher socioeconomic complex (21N901A).
and house has a comparatively lower yield.

In addition to the proposed cellar and refuse pits, the trenching program uncovered two additional features of note. The first (21N904A1351) is what appears to have been some form of fire pit (grid coordinates N4740, E4027). Lacking associated structural remains, this feature may best be interpreted as either an outside hearth or burning area for refuse. The second feature was a heavily disturbed area in the western end of one of the test trenches (21N904A0895, grid coordinates N4780/E4030). This disturbance is possibly related to the 1885 excavation of Middleton's second zareba (see Payment 1977: 58).

Feature Excavations Within the Fisher Socioeconomic Complex

Given the results of the just described testing programs, three features were singled out for more intensive examination. Including the possible cellar (21N44E), a major refuse pit (21N44D) and the possible zareba (21N4L), each is individually examined.

Fisher's House Cellar (21N44E)

Approximately 43.5 m north of Fisher's store was a 2.5 m diameter pit. This pit had been originally exposed during the trenching program and, subsequently, underwent major excavation. With its location roughly approximating the position of Fisher's residence as outlined by Payment (1977: 60), its most immediate interpretation is that of a cellar. Plaster and chinking scattered throughout the adjacent area as well as dense concentrations of artifacts in this northern section support this interpretation. Large scale exposure of this feature, however, failed to find additional structural features for the building. One must surmise, therefore, that the building had been totally dismantled and removed prior to the land being cultivated.
The major pit feature was excavated in arbitrary levels to a depth of 90 cm below surface. The Ap and Ae soil horizons extended to a maximum depth of 25 cm. Below this was a mixed matrix of plaster and wood including an abundant artifact assemblage (Figures 20, 21). Underlying the mixed matrix was a black soil horizon containing a wooden beam segment (1.73 m x 17 cm). The interface of the latter two matrices was initially thought to be representative of a break in feature components. However, later examination of artifacts both from the overburden and lower levels did not bear this out. Except for feature size, the nature and condition of the associated artifact assemblage would seem to suggest a refuse pit such as that subsequently described. The function, if any, of the wooden beam was not determined.

Relative dates were determined for a number of artifacts recovered within the pit perimeters. The earliest of these was obtained on shards of an earthenware vessel manufactured by William Adams and Co., Tunstall, England. They date between ca. 1879 and post 1891 (Godden 1964: 22). Additional earthenware shards in the "Trellis" pattern were also manufactured by Adams and Co.; they reference a post 1896 period. A number of mould blown bottles with hand-tooled finishes are indicative of a ca. 1880 date while a single empontilled bottle base is representative of a post 1850 time frame. Given the above reference points, the assemblage may be assigned a terminus post quem date of 1896. This would reference the minimal date after which the assemblage could have been deposited.

If the feature is taken to be the cellar of Fisher's 1883 residence, the recovered assemblage does not appear to be directly related. This would suggest that after the building had been dismantled, the cellar was used as a refuse pit by a later population. The pit would have eventually been levelled for cultivation.
Figure 20. Excavation of Fisher house cellar (21N44E) (Photograph by K. Hardie).

Figure 21. Profile of Fisher house cellar (21N44E) (drafting by D. Milton).
Refuse Pit (21N44D)

Circa 38 m north of the store and south of the presumed cellar feature was evidence for some form of refuse pit occurring beneath the plough zone (23 cm below surface) (Fig. 22, 23). Following an expansion of the initial test trench, this pit was found to be just over 1 m in diameter and it was decided to excavate its eastern half. Having a depth of 89 cm, the pit had apparently been infilled with a mixed matrix of sand and ash with abundant artifact inclusions. Scattered throughout were burned wood fragments and rocks. The lack of concentrated organic matter ruled out the possibility of it being a privy. On the basis of its fill and associated artifacts, the feature would appear to have been an uncribbed, unlined earthen walled refuse pit. Moreover, the homogeneous nature of the assemblage suggests a relatively brief span of use thus ruling out stratigraphic significance.

The earliest dated artifact within the assemblage was that of an earthenware serving dish manufactured in England in October 1892. Shards from an earthenware vessel manufactured by Pitcairns Ltd., Pinnox Pottery, Tunstall, England could also be dated between 1895 and 1901 (Godden 1964: 496-7). Owens machine-made liquor bottles, manufactured in a post 1904 period, extend the terminus post quem date into the twentieth century provided the pit is representative of a limited depositional event. Whatever the case, the pit most definitely had its employment after the abandonment of the Fisher residence.

Possible Remnants of Middleton's Zareba (21N4L)

As previously noted, following Middleton's capture of Batoche a defensive zareba was established around the Fisher and Boyer complexes. Given the extent of previous cultivation in this area, there is little surprise that visual remnants of this earthwork are long gone. However, disturbance related
Figure 22. Excavation of refuse pit feature (21N44D) (Photograph by K. Hardie).

Figure 23. Profile of refuse pit feature (21N44D) (drafting by D. Milton).
to zareba construction might be expected beneath the plough zone thus identifying its 1885 perimeters.

A heavily disturbed area was initially detected in the trenching test excavation program (grid coordinates N4780, E4030) and the decision was made to strip a larger area to determine its boundaries and function. This work first proceeded by excavating a 4 x 4 m block down to the B soil horizon. Eventually the area was further expanded by 25 cm wide trenches to the north, south and east (Fig. 18).

The disturbance is marked by a rather subtle shift in the matrix composition of the B soil horizon as opposed to adjacent areas. This feature is composed of a mottled clay intermixed with charcoal and cultural materials. On isolating its east and west boundaries, it was found to be linear and running in a north/south direction. It had a maximum width of slightly less than 2 m and did not extend to any considerable depth into the B horizon. Although highly tentative, it may well be interpreted as the western wall of the zareba.

Excavation of Fisher's Store (21N4)

A brief historical account and a review of the excavation methodology and objectives for Fisher's store has previously been given. For descriptive purposes, the excavation results are presented for each of the major features. These include the foundation remains, the cellar and the west wall lean-to.

Store Foundation

The store foundations became immediately visible after the overburden had been removed and the buried A horizon was exposed (Fig. 24). The \textit{in situ} northeast corner sill logs (Figs. 25, 26) were sawn, partially peeled and abutted at right angles. They did not appear to be tied nor half-lap jointed and evidence for notching was absent. The east wall
Figure 24. Structural remains of Fisher's Store (21N4) (drafting by D. Milton).
sill log measured approximately 9.6 m x 20 cm x 5 cm. It was laid on a thinned or partially notched sleeper (10 x 46 cm) resting on the buried A horizon and was located 70 cm south of the northeast corner. The thinned portion of this sleeper extended outside the structure while the sill log rested on the unthinned segment. East wall sill log preservation was poor to nonexistent toward the south end of the structure. Aside from sod removal there was no evidence for preparation of the surface prior to its positioning. An east to west test trench excavated through the east wall of the building provided little additional information. The southeast corner was clearly delineated by a darker culturally disturbed soil outlined by a plaster concentration (Fig. 24). Boulders, sleepers or other structural supports were absent.

South wall foundation remains consisted of two wooden members including a possible sleeper and a possible floor joist support. No evidence for the sill remained. The two wooden supports, positioned 2 m apart, were peeled and sawn. The most westerly specimen was thinned or partially notched (Fig. 24). It measured 106 x 18 cm and is best interpreted as a sleeper. The south wall sill log would have rested on an unthinned portion with the thinned segment extending into the store interior. The more centrally located example (64 x 18 cm) aligns with another possible floor joist support which is situated parallel to the inside north wall of the store (Fig. 24). Apparently turned 90 degrees from its original position, it was sawn and partially peeled but not thinned or notched.

Evidence for the front entryway seen in the 1885 and 1886 photographs (Figs. 16, 17) was limited to the location of one posthole (Fig. 24). Approximately 1.2 m south of the front facing wall of the store, it measured 10 cm in diameter. This may represent the southwest corner upright of the front porch. Since a pit does not appear to have been excavated for its placement, it most probably was sharpened
Figure 25. Construction data, Fisher's Store (21N4) (drafting by D. Milton).
Figure 26. Northeast corner, Fisher's Store (21N632T) (Photograph by K. Hardie).
and pounded into the ground.

Transecting the south wall in the southeast corner of the store was a 4.4 m by 20 to 50 cm north/south oriented trench (Fig. 24). Having a depth of 15 cm, it extended from the interior of the store to the estimated location of the front porch. This trench contained plaster, wood, nails, bone and window glass. Its significance was not determined.

Foundation remains in the southwest corner consisted of two thinned or partially notched wood fragments aligned on a north/south axis and situated between two boulders (Figs. 24, 27). These at one time may have been a single sleeper. West of the southwest corner two thinned or partially notched wood fragments in an east/west alignment may have been part of the store's corner foundation (Fig. 24). If so, they would have served as a wooden upright or support for the southwest corner. Conversely, the 8 x 10 cm wooden tongue on the east face of the west log may have been set in the 9 x 11 cm notch in the adjacent wood remains. At present, the tongued fragment rests on a boulder.

West wall store foundations consisted of possible sill log remains plus two wooden supports and three boulders laid directly on the buried A soil horizon (Fig. 24). Along the west wall, two east/west oriented supports, varying in size from 50 to 60 cm by 15 to 20 cm, lay on the buried A soil horizon approximately 1.2 m apart. The more southerly located support was peeled, sawn and thinned or partially notched. The west wall sill log would have rested on the unthinned portion of this sleeper while the thinned portion extended into the store interior. The more northerly specimen may have been a sleeper or the support for a floor joist. Because it had neither been thinned nor notched, the latter interpretation seems most likely. Two boulders located south of the wooden supports were aligned on a north/south axis. The boulders, 54 x 30 cm and 40 x 20 cm, may have supported the west wall sill log. Situated between these boulders was a
Figure 27. Southwest corner, Fisher's Store (21N4) (Photograph by K. Hardie).
peeled and partially notched wood fragment, possibly a sill log remnant (Fig. 24). It, however, might also represent a sleeper turned on an angle of 90 degrees.

In the northwest corner, foundation remains consisted of one north/south oriented sleeper. Located directly north of a 25 x 50 cm boulder, it could have supported either the west or north wall sill log (Fig. 24). This example was peeled, sawn and thinned or partially notched. The sill log would probably have rested on the unthinned portion.

Parallel to the above noted support was a second north/south oriented, peeled, sawn and partially notched sleeper (20 x 85 cm). The north wall sill log probably rested on its unthinned portion.

Approximately midway between the northeast and northwest corners was a partially peeled and sawn wooden support. Measuring 20 x 70 cm, it lay on the buried A soil horizon. This isolated wood remain may represent a support for the store floor joist. It aligned with the possible floor joist support turned 90 degrees along the interior of the south wall of the store. According to Powter (1977: 72), "the ground floor could be constructed of tongue and groove flooring on squared joists. The joists could rest directly on the ground or on wood sleepers." Because of the way it was sawn and the lack of thinning or notching, it could not be interpreted as a sleeper.

In the northeast corner, sill log remains rested on a north/south oriented sleeper located 50 cm west of the corner (Figs. 25, 26). The sleeper was peeled and thinned or partially notched and the sill log laid on the unthinned portion. The approximately 20 x 5 cm x 6.3 metres long sill was directly situated on the buried A soil horizon. It abutted at a right angle with the east wall. Due to poor preservation, its remnants were isolated to the northeast corner.
Cellar

Direct historical description of the cellar was not available. Its excavation, therefore, was focused on its size and mode of construction. More specific objectives included a determination of the type of wood utilized, the extent of log preparation and whether or not a floor was present.

Roughly oval in shape, the cellar measured ca. 3.5 x 2.8 m (Figs. 24, 28, 29, 30). Following the excavation of the eastern half, the depth during the store occupation was estimated to be approximately 2 m. It contained four stratigraphic layers (Figs. 29, 30). The first three were overburden and probably are a result of the building's destruction and a subsequent deposition of garbage. A 2 cm thick lens of plaster, wood and tar paper, probably debris from collapse of the store, separated the third and fourth strata. The fourth stratum, a sandy silt, may have resulted from slumping of the cellar walls prior to the store destruction. Below this a natural sandy layer marked the bottom of the cellar. Sand outside the cribbed cellar walls was the same as that present in the cellar bottom. Whether or not a wooden floor existed above the sand is uncertain although it does seem probable as later discussed.

Poorly preserved cribbing logs of spruce (Picea sp.) and poplar (Populus sp.) remained from the north, south and east walls (Fig. 31). Peeled or partially peeled and shaped logs were sawn or hewn to rest directly on one another and to facilitate secure corner connections. Cribbing logs from the north and south walls were pointed on two opposite faces. The tapered ends were probably nailed to corner uprights. Whether or not all logs were tapered before being nailed to the corner uprights was not determined due to poor preservation. Sizes of cribbing logs varied. However, the 5 cm thick by 7 to 10 cm wide by 2.8 m (?) long north wall log does provide some indication of size. Among the questions
Figure 28. Cellar outline of Fisher's Store (21N4) (Photograph by K. Hardie).

Figure 29. Profile of cellar trench in Fisher's Store (21N4) (Photograph by K. Hardie).
Figure 30. Profile of Fisher's Store cellar (21N4N) (drafting by D. Milton).
Figure 31. Cribbing in cellar of Fisher's Store (Photograph by K. Hardie).
remaining unanswered are whether or not cribbing logs were split in half and whether spaces existed between the logs.

The poorly preserved southeast corner upright of spruce appeared to be peeled (Fig. 32). Whether it was squared and how it originally maintained its upright position were not determined. East wall cribbing logs were nailed directly to the east face of the upright. As well, a small piece of sawn lumber had been nailed to the west face of the upright, adjacent to the tapered ends of the south wall cribbing logs.

The partially peeled northeast corner upright of spruce (Picea sp.) was also poorly preserved. It could not be determined if the 11 cm wide by 6 cm thick log was squared. Unlike the southeast corner, this upright was positioned outside the corner connection. When excavated, the east wall cribbing logs connected with the west face of the upright, rather than the east face. They were joined by cut nails. Evidence also existed for the tapered ends of the north wall cribbing logs to overlap those of the east wall. Thus, the corner upright was outside this connection.

The location and nature of the wood recovered indicate that the cellar probably had a wooden floor constructed mostly of spruce with some poplar. The evidence consists of transversely sawn planking which had been nailed (Fig. 33). Wood remnants ranged from 1 cm thick by 7 cm wide to 2.5 cm thick by 10 cm wide and were oriented in such a way to suggest the flooring to have been laid on a north/south axis. How the floorboards connected with the cribbed walls remains unknown. Floorboards may have extended into the spaces between the north and south wall logs where they rested directly on the logs, or on supports set on the logs. The floor was probably raised by wooden joists although remains of these supports were absent.

To briefly summarize, the cellar of Fisher's store measured approximately 2.8 m wide by 3.5 m long and was 2 m
Figure 32. Detail of southeast corner upright of Fisher's Store cellar (drafting by D. Milton).
Figure 33. Flooring remains in cellar of Fisher's Store (Photograph by K. Hardie).
deep. The sandy earthen walls, cribbed with peeled, parti-
ally squared and tapered logs were laid one upon the other
and nailed to corner uprights. If the northeast corner
remains were undisturbed and the east wall cribbing logs
have not been displaced, then the northeast corner upright
was outside the north and east wall connection. The south-
east corner connection presently forms an acute angle measur-
ing approximately 85 degrees while that of the northeast
corner connects at an obtuse angle of 95 degrees. The
resulting shape is a parallelogram rather than a rectangle.
Perhaps the four corner uprights were positioned and logs
were then shaped to fit the desired outline. The steps of
construction were undetermined. The cellar appears to have
had a north/south oriented wooden plank floor raised approxi-
mately 20 cm above the sandy bottom. Due to poor preservation,
excavation and interpretation of the cellar was difficult.

Lean-to
A lean-to was present on the west wall of Fisher's store as
noted on an 1886 photograph (Fig. 17). This addition was
built of horizontally laid logs with a south facing entrance
in the southeast corner. Two window openings were in the
west wall. Construction details, the method of attachment
to the store and whether there existed an interior entrance
to the store were not revealed in the photograph. Based on
Powter's (1977) study of Métis log buildings in the Batoche
area, similar additions were described as single-storey low-
pitched shed roofed wings. These buildings were usually
constructed of "...sill logs supported off the ground on
randomly placed boulders" (Powter 1977: 30). Exterior walls
were normally of locally available logs that were hewn, hori-
zontally laid and connected at the corners by dovetail notching.
The wing and the main block were usually joined by a
mortice and tenon construction made"...by dropping the tenon­
ed logs into a groove formed by nailing two pieces of sawn
 timber to the wall..." (Powter 1977: 72). Fisher's lean-to
appears to have been unplastered and unsided. Although it
was not determined from the 1886 photograph whether the roof
was shingled, "roofs were invariably covered with random
width sawn shingles" (Powter 1977: 11).

Evidence for the north wall (5.6 m long) was restricted
to the northwest and northeast corners. This consisted of
a portion of the sill log, remains of which rested on a 54
x 36 cm boulder laid on the buried A soil horizon in the
northeast corner (Fig. 24). The 20 cm wide log was peeled,
sawn, unnotched and poorly preserved. The sawn east end of
the log appeared to abut with a 40 x 20 cm foundation support
to the east. How the northeast lean-to corner connection
was made with the store is uncertain, as the notched wooden
sleeper may have been associated with the northwest corner
of the store and not the lean-to. The northwest corner of
the lean-to was marked by a 50 x 90 cm boulder on the buried
A soil horizon. No sill log remains or wooden sleepers were
present.

Along the 9.20 m long west wall, slight evidence for a
clay filled trench below the buried A soil horizon was un­
covered in association with a row of staggered single and
double course unmortared fieldstones (Figs. 34, 35). The
west wall provided the only evidence at Batoche for a trench
being dug prior to laying down a foundation. The sand and
part of the buried A soil horizon were probably removed and
the boulders laid in the trench. This would then have been
backfilled with the disturbed soil. In the southwest corner
of the lean-to, a 30 x 50 cm boulder rested on the 3 cm thick
buried A soil horizon (not in a clay filled trench) with
evidence for a sill log or wooden support absent (Fig. 24).
However a single wooden sleeper was present at approximately
Figure 34. Foundation remains for west wall of lean-to, Fisher's Store (Photograph by K. Hardie).
Figure 35. Overview of Fisher’s Store excavation (Photograph by K. Hardie).
midpoint of the foundation. This 20 x 80 cm peeled sleeper was thinned or partially notched. If similar to its east wall counterpart, it may have rolled 90 degrees from its original position (Fig. 24). In this respect, both sleepers may have functioned as floor joist supports. Lean-to floor construction was not determined due to the absence of both floorboards and packed dirt.

The south wall lacked evidence for a sill log or wooden sleeper. The southeast corner was marked by the presence of a 30 x 40 cm boulder laid directly on the buried A soil horizon (Fig. 24). This boulder may no longer be in situ although it does follow the pattern of corner foundation construction found in the lean-to. Resting on this boulder were the remains of a peeled, sawn and notched wooden support with an 8 x 10 cm tongue. This wooden member may have been associated with the southeast corner of the lean-to, with the entryway, or with the southwest corner foundation of the store. Heavy plaster concentrations were present in the vicinity of the southeast corner. The significance of the two boulders located south of the front facing wall of the lean-to was not determined, and they appeared to be out of context.

Foundation remains for the east wall were virtually non-existent. This was not surprising since the lean-to had been added to the standing west wall of the store and, consequently, did not require a separate foundation. However, foundation remains interpreted as west wall store foundations may, in fact, belong to the lean-to. Such an interpretation would imply that the lean-to was a separate structure.

The sandy overburden in the interior of the lean-to probably resulted from the initial excavation of the cellar in Fisher's store.
Summary

Excavations revealed a variety of construction techniques used in the store, cellar and lean-to. The store was probably of horizontal notched log construction. Peeled and sawn logs laid one upon the other would have been chinked, lathed, plastered and then sided on the exterior face.

Store foundations consisted of sill logs laid on the unthinned portion of peeled, sawn, and thinned or partially notched wooden sleepers and boulders. Possible floor joist supports were located parallel to the north and south interior walls of the store. The front entrance location was indicated by a single posthole outside the store.

The store cellar was cribbed with locally available peeled logs. The sharpened ends of the logs were nailed to peeled corner uprights. Logs were squared to sit one upon the other. Although evidence for a floor was poor it does seem likely.

For three of the lean-to walls, foundation remains consisted of peeled and sawn sill logs on boulders resting on the buried A soil horizon. West wall boulders were situated in a narrow trench which contained a mixed soil matrix. Evidence for a single wooden sleeper or floor joist support occurred along the west wall. The southeast corner front entryway was indicated by two shaped wooden members. No evidence for an interior wooden floor or a packed earthen floor was uncovered. The possibility of an interior entrance between the store and lean-to was not determined. Poor wood preservation and the fact that the store was razed did not allow for a detailed interpretation.
Batoche Archaeological Survey

Archaeological survey work conducted in 1977 was basically a continuation of a program initiated the previous year (Donahue and Hall 1977). The survey was conducted in two parts. The first consisted of locating and test excavating structural complexes that were recorded in historic sources but had not been identified in 1976. The second segment was directed towards a systematic collection of data related to prehistoric site location variables within the park.

Historic Site Survey within Batoche National Historic Park
Selected areas within Batoche National Historic Park were surveyed by surface examination and test excavation in 1977. The areas selected were those where historic maps and documents indicated the possibility of occupation in the late nineteenth century, or where aerial photographs indicated the possibility of cultural features. Operations are subsequently summarized and located in Figure 36.

Nogier Farmstead (21N85)
A sketch of the 1885 battlefield by Captain H. de H. Haig indicated the possibility that structures existed near the northeast corner of the park on the west side of the river road. This area was occupied by the Cleophas Nogier farmstead as recently as the 1960s. Testing was done to determine if occupation extended into the 19th century. Three
Figure 36. Historic site locations examined in the 1977 field season (Drafting by D. Milton).
separate structural areas were tested, namely the Cleophas Nogier house (21N85A), a shed west of the house (21N85B) and a shed at the west end of the farmstead (21N85C). Both of the former pair appear to have been backfilled with clay when the buildings were razed. Artifacts were found at a clay and black soil interface and, in the case of the house, in an ash lens. The second shed (21N85C) appears to have been undisturbed following its destruction. Consequently, artifacts were found in the Ah and Ae soil horizons. A total area of 4.5 m$^2$ was excavated at the three structures. All artifacts excavated appeared to be quite recent. In addition, the foundation of one shed (21N85B) was constructed of strong, recent concrete. An extant barn and shed also appeared recent. Unless artifact analysis proves contradictory, it must be concluded that this site represents a twentieth century occupation.

Area Survey A - Champagne Outbuildings (21N137)
An 1885 sketch of Emmanuel Champagne's buildings (Payment 1977: Fig. 25) on river lot 44 shows two outbuildings west of his house. According to local informants Emile Parenteau and Father Denis Dubuc, this area was occupied from the late 1940s to the 1960s by Jean and Pat Champagne. A standing outhouse and a cellar hole remain from this occupation. Test excavation and survey were undertaken to ascertain if the 1885 Champagne outbuildings underlay the more recent occupation. Soil cores extending to 50 m northeast of the outhouse revealed a disturbed area (21N137C) where a small barn or shed existed during the later Champagne period. Tests produced one cut nail and other more recent artifacts. Further tests several metres to the northeast failed to recover earlier materials. A surface collection from an area 80 m south-southeast of the outbuildings includes a piece of cobalt blue and two other ceramic fragments.
Rifle Pits

Three rifle pits were located on river lot 47 immediately below the crest of the upper river terrace. They were approximately 2, 2.5 and 3 m in diameter and 0.5, 0.75 and 1 m in depth. They had been spaced about 35 and 20 m apart in a north/south line along the hillside.

Four and possibly five rifle pits (21N129) were once present on river lot 49, in a location that corresponds to a number of eroded depressions visible on a 1949 aerial photograph (A11985-38) (Dubois: pers. comm.). The rifle pits, since destroyed by cultivation, were approximately 240 m west of Saskatchewan Highway 225 on the north side of the lot 49 to lot 50 fence line, at a point below the crest of the upper river terrace on the edge of an aspen grove. Since the 1885 maps and 1949 photograph show the slope to have been forested, these pits were probably within the vegetated area. Both rifle pit groups would be in the typical location for the outer ring of defences at Batoche. Maps from 1885 by Burrows and Denny, and by Cole illustrate Métis rifle pits located near the forest edge along the top of the hillside.

The former location of 12 or 13 rifle pits in the lowest river terrace of lot 46 was also pointed out (Dubois: pers. comm.). The pits were clustered on the sides of a gentle depression. Judging from the aerial photograph (A11985-38), they were situated around a small grass clearing.

Emile Parenteau and Napoleon Fayant report that the lowest terrace of lots 43 to 46 also contained an additional count of approximately 40 scattered rifle pits (Parenteau and Fayant: pers. comm.). Many were in lot 45, west of the gravel pit and south of the lot 44 line.
Area Survey B - Ludger Gareau House

Early maps of the Batoche area by George F. Cole (1885) and Montague Aldous include a number of black dots that may represent buildings west of the St. Antoine de Padoue rectory. Since there is some confusion as to the exact location of Ludger Gareau's house it was first thought that the dots could have indicated his buildings which are described as being three acres south of the church (Payment 1977: 43, 64). This location corresponded with a surface collection area (21N101), with a number of depressions visible on 1949 aerial photographs and with structures mapped by Cole in 1885. A surface survey conducted in lots 50 and 51 failed to locate structural remains or artifact scatters other than those previously noted (21N101). The black dots seem to have been either printing faults or symbolize something other than structures.

Area Survey C

Air photographs of survey area C show two depressions which were examined by surface survey. The depressions were natural features associated with river bank slumpage. A dump was found which appears to be related to the Jean Caron Jr. buildings.

Abraham Montour Farmstead (21N126)
An early surveyor's map and notebook indicate buildings owned by Abraham Montour on the NW 1/4 of section 19 and on river lot 20. These buildings were erected in the 1870s and occupied until the 1890s. The area was extensively disturbed by road construction although one cellar hole (21N126A) was found north of the ferry road in section 19. The depression measured 3.5 m in diameter and 0.6 m in depth. While area soil appeared to
be sandy, immediately below it and surrounding the depression
was a hard clay lens as revealed by test excavations. The
clay seemed to be a chinking or plastering material. Arti-
facts were both excavated and collected from the surface of
this cellar. An additional structure or structures southwest
of the cellar were destroyed by road construction. Surface
collection (21N126B) retrieved several artifacts from the
area. A dump area (21N126C) extended east of the cellar and
downslope.

A second depression (21N126D) was found approximately
50 m north of the cellar in river lot 20. It measured approxi-
mately 2 m in diameter and 0.6 m in depth. Surface collecting
within an approximately 10 m radius from the depression pro-
duced 5 shards of window glass and a tin can fragment.

Farmstead (21N70)
A farmstead (21N70) in river lot 19 was recorded in 1976.
The standing house and surrounding yard, with lilac bushes
and rhubarb still growing, appeared recent. Two dumps were
found on the hillsides southwest and northeast of the house.
The northeast dump was definitely recent and thus was given
no further consideration. Artifacts were obtained for
analysis from the southwest dump.

Area Survey E - Elzear Parisien Farmstead (21N73, 21N74)
In 1875 Elzear Parisien purchased a lot roughly corresponding
to river lots 15 and 16. In succeeding years, he erected a
number of buildings at the eastern end. A farmstead contain-
ing a standing house and two sheds remains on river lot 17
adjacent to the north boundary of lot 16. These buildings
appear to date from the mid 20th century. Test excavations
at the farmstead (21N74) were to determine if an earlier
occupation existed at the same location.
Excavations approximately totalling 16 m² were conducted in five separate areas. One depression (21N74K) southwest of the extant house was tested to a depth of 1.2 m below surface. The diameter and depth of the depression suggested that it was a manure filled well. Recovered artifacts include batteries, colourless window glass, wire nails and other 20th century material.

A test trench was excavated to crosscut the wall ruin of a small building (21N74G) visible on 1949 air photos. The wall now consists of a linear ridge containing burnt wood and chinking. Once again the artifacts were primarily wire nails and colourless window glass.

A depression (21N74H) north of the standing house was tested by a 3.5 m trench running outwards from the centre. The depression did not appear to have surrounding wall remains. Although a large amount of recent trash dating to the 1940s was present, it was not possible to determine a function for this feature.

Three trenches (21N74J) were excavated to test the southern end of the farmstead. No artifacts were found. Excavations at the remains of a shed (21N74L) crosscut its east wall. Outside of this wall, two post bases and a log fragment were exposed. A single cut nail in addition to wire nails was recovered.

In summary, although large areas were tested and almost all parts of the farmstead were sampled only one early appearing artifact (a cut nail) was recovered in comparison to an abundance of recent items. It must be concluded that this site is a 20th century farmstead with no apparent earlier occupation.

Since the site proved recent, a surface survey was conducted to cover the entire area of river lots 15 to 18 within a large cultivated field adjacent to the South Saskatchewan River. An 1885 map by Burrows and Denny depicts a building in
what would be river lot 18. No surface indications remained. The building illustrated by Burrows and Denny was probably the Parisien house, albeit inaccurately located. The survey was able to locate historic materials in but a single area of river lot 16 (21N73). Since the previous farmstead proved recent and no other historic sites were found, this suggests the area might represent the Elzear Parisien farmstead. The site was surface collected thoroughly to obtain as large a sample of material as possible for dating.

Historic Site Survey Outside of Batoche National Historic Park
In addition to the work within Batoche Park, a number of sites were recorded outside the park boundary as a leisure time activity (see Fig. 36). Most of these were initially brought to our attention by interested local people and were documented both as a courtesy to them and as a record of the regional archaeological resources. Information on all sites was recorded on Saskatchewan Museum of Natural History forms and forwarded to Dr. Ian Dyck, Regina Museum, for inclusion in the Saskatchewan inventory of sites.

Depressions (21N66) - River Lot 22
Three large depressions were found in river lot 22, Township 43, Range 1, west of the 3rd Meridian on a hill overlooking the river. This site could either be the farm of Pascal Montour or Hilaire Patenaude both of whom occupied the south 1/2 of Section 30 in the 1870s. Alternatively, it could also be the homestead of Isidore Lafontaine who claimed the south 1/2 of the north 1/2 of Section 30.

The three depressions were between 4 and 6 m in diameter and 1.5 m and 1.75 m in depth. Surface collected artifacts included lithics, cut nails, soldered cans, blue-green window glass and turn paste mould bottles.
Rifle Pits - Bill Yaniw Farm
Bill Yaniw, a local farmer, indicated a cluster of six depressions within an approximate 10 m diameter area on section 14, southwest 1/4, Township 43, Range 2, west of the 3rd Meridian. Each depression was approximately 1.5 m in diameter and 0.5 m deep. The size of the depressions, their clustering and the absence of artifacts suggest rifle pits.

Cuthbert Fayant House – River Lot 33/34
Napoleon Fayant reported that his grandfather had resided on river lot 33 near the river. Napoleon Fayant’s father had recalled living there and the farmstead is apparently indicated by a surface scatter. Payment (1977: 78), however, reports that Cuthbert Fayant lived in lots 34 and 35. The site has not been observed.

Plaster and Whitewash Pit – River Lot 34
Napoleon Fayant pointed out a pit in river lot 34 approximately 300 m east and 300 m south of the river. The pit is also visible on aerial photograph A17587-6. Apparently people from Batoche used this pit to excavate clay for chinking and plaster. The clay was of sufficiently good quality to be used in whitewashing. According to Emile Parenteau, a local resident, the clay was mined until at least 20 or 25 years ago. The site has not been observed.

Daniel Gariepy Farmstead – River Lot 37
On lot 37, Township 43, Range 1, west of the 3rd Meridian, occurred a cellar hole approximately 2 m in diameter and 1 m in depth. It is located 100 m east of the river. Wall outlines and sill support stones were visible around the depression. These indicate a structure measuring approximately
5 x 3 m. Another depression approximately 30 m to the south-southwest measured 1 m in diameter and 0.5 m in depth, while two others approximately 30 m to the east measured 1 m in diameter and 0.5 m in depth. A well defined vehicle trail ran north and south across the site. This trail connected the Champagne, Gariepy, Dumont and other riverside buildings with the ferry in lot 47. It then turned to the northeast to join the main river trail.

Edouard Dumont Buildings and Lime Pits (21N130)—River Lot 38
Six features were observed in river lot 38. Spaced along the hill edge above the river for about 100 m, each feature consisted of a depression from 2.5 to 4 m in diameter and from 1 to 1.75 m in depth. The narrow "wall" of each between the depression and the hillside was in each case cut by a small U-shaped opening. Four of the features had trench-like depressions or a second circular depression cut into the hill-slope. These were connected to the main depression by the U-shaped opening. Deposits of shattered limestone and mortar-like lime surrounded 3 depressions and were scattered downhill. Burnt earth, charcoal and fired clay fragments were also observed around one feature. Three of the features had no deposits of lime around them. No ash, charcoal, burnt soil or extensive deposits of lime were observed within any of the depressions.

Edouard Dumont resided on lot 38 from 1882 into the early 20th century (Payment 1977: 78). According to Napoleon Fayant, who received his information from Cleophas Champagne, Dumont used the features (21N130) to produce lime during this period. Limestone was collected from the river bank below and cordwood was cut from the surrounding fields. Lime was produced by burning limestone for approximately three days, then pouring water on the hot stone to shatter it. Burning
altered the limestone from calcium carbonate (CaCO$_3$) to calcium oxide (CaO). The lime was sold in Rosthern and to local people. Fayant remembered Dumont's house and outbuildings being located approximately 50 yards to the east or southeast of the lime pits. This area is now cultivated. The remains of this habitation were not observed.

Moise Parenteau Farmstead - River Lot 40
Xavier Letendre's brother-in-law, Moise Parenteau, resided on river lot 40 during the late nineteenth century (Payment 1977: 79). Although he was unsure of the first name, Napoleon Fayant reported that William Parenteau's father had resided on river lot 40 at a location marked by approximately ten maple trees. This site is roughly 500 m east of the river. Cursory surface examinations of the field adjacent to the maple trees failed to locate extensive remains. A better examination of the area is needed. A single depression approximately 2 m in diameter and 0.25 m deep was observed near one maple tree.

Rifle Pits - River Lot 42
Two apparent rifle pits were observed on river lot 42 about 300 m east of the river and 90 m south of river lot 41. One depression was 1.5 m in diameter by 0.5 m in depth and the other, an oval one, was 3 x 2 m and 0.5 m in depth. One was just below the top of a ridge and the other on the ridge about 4 m away. Both were on grassland vegetation.

Burials - River Lot 42 or 43
Napoleon Fayant reported that two graves were located near the river lot 42 to 43 line about 300 m east of the river.
An Indian had squatted on the lowest river flat near the turn of the century and his two daughters died during the winter. They were buried in shallow graves covered with sticks. The information on their location and origin had come from Cleophas Nogier, the occupant of river lot 43 during this period.

Farmstead and Rifle Pits (21N125) - River Lot 66
Clearing work exposed two cellar pits, eight rifle pits, and two other depressions of unknown function on river lot 66. The features were located approximately 600 m east of the South Saskatchewan River and between 10 and 120 m west of Saskatchewan Highway 225.

Five depressions were test excavated. These varied between 1.5 and 2.5 m in diameter and from 1 to 1.7 m in depth. They were interpreted as rifle pits because of their size, depth, lack of structural features and the shallowness of trash deposits. Two other depressions 1 m in diameter and another 2.5 x 2.5 m and 0.5 m in depth were also interpreted as rifle pits, although they remain untested. Nine of ten rifle pits were located in poplar forest and mixed grass/shrub on the slopes of a low area. One or two other pits had reportedly been destroyed prior to examination of the area.

Two depressions of undetermined function appeared too deep for rifle pits. They measured approximately 3.5 m in diameter and 1.5 and 2.3 m in depth. Test excavations did not reveal cribbing or structural materials. No artifacts were found below surface and one depression contained at least 40 cm of organic fill.

Two cellar depressions were located approximately 60 m south of the main concentration of rifle pits on grass near the forest margins. Foundation stones were exposed by bulldozing at each of the cellars. Artifacts were surface collected following each bulldozer pass.
La Petite Ville
The remains of La Petite Ville, a large Métis wintering community occupied from about 1870 to 1874, were located in the NW and NE 1/4 of Section 18, Township 42, Range 1, west of the 3rd Meridian. The site, pointed out by Father Dubuc and Mr. Ed Bruce, was situated in a mixed grass and shrub clearing about 40 to 80 m from the west bank of the South Saskatchewan River. Surface remains consist of at least 40 depressions of obvious cultural origin. Approximately 15 were in a linear cluster on the brush/grass edge. Others were in groups of three to six and some were isolated. The depressions varied from 0.5 to 3 m in diameter and from 0.25 to 1.5 m in depth. Approximately half were greater than 1.5 m in diameter. No concrete or masonry foundations were observed. Two depressions had adjacent field stones that may have served as hearths or log supports. Approximately six vehicle (cart?) trails diverging to the west and north were distinctly visible on the slope to the west of the site.

Recommendations for Future Historic Survey Work
Outside of the lot 46 to lot 47 nucleus of stores there remain several areas where surveys should be continued. Some survey activities require more extensive work than was possible in 1977.

Site 21N87 in river lot 46 consisted of a fairly dense scatter of historic artifacts mixed with lithic material. The site appeared too far removed from any known residence area to have been used for a garbage dump. The same location was covered by a small clump of bush in 1949 within which were several depressions that have since been filled. They may have been cellar depressions dating to the late nineteenth century. Excavations were conducted at the adjacent site (21N85) to search for this type of occupation.
The depressions on aerial photograph A1985-38 should be accurately mapped. More intensive surface collection could then determine if the densest artifact scatters corresponded in location to the former depressions to support the hypothesis that these were cultural features.

Site 21N100 consisted of a small scatter of historic and lithic artifacts (66N1). The site was recorded in 1976 and no further work was done in 1977. The location roughly corresponds to a single house shown on George Cole's 1885 map. The house was north of two mapped structures which were interpreted as Ludger Gareau's, and east of the trail between the Caron houses and the church. The only reported structures not accounted for in this area were those of the Sauve Brothers, who squatted in the vicinity of lots 50 to 53 "earlier" than 1882 (Payment 1977: 70). The structure mapped by Cole could be that of the Sauve Brothers. The surface collection from this site should be intensively analysed and further materials should be collected from the area. If the site does not prove to be the house mapped by Cole, that house has most probably been destroyed by road building.

The approximate location of the two Champagne outbuildings was suitably confirmed by a survey at the Champagne complex (21N137). Since the outbuildings were probably stables or sheds with small numbers of artifacts, their precise location was too difficult to determine without massive excavations. Bush along river lots 43 to 44 near the river edge could be resurveyed for early trash deposits. Further work, however, would be impractical.

The true extent of the outer ring of Métis defences has not yet been determined. Some historic records indicate that they may have extended for two miles along the river. The find of eight rifle pits in river lot 37 this year suggests this may be correct. Unfortunately, any pits which may have been located in lots 38 or 39 were destroyed in the mid 1970s along with the Edouard Dumont farmstead. River lots 35, 40 and 41 remain wooded although lots 40 and 41 are scheduled
Prehistoric Site Survey
Prehistoric survey was restricted to the west side of the South Saskatchewan River in 1977. The 69 sites recorded during the 1976 field season were limited almost entirely to cultivated areas. Since the west side of the park was almost entirely uncultivated, it offered an opportunity to find undisturbed sites for future excavation. By testing all vegetation, landforms and soil types, it was hoped that a sufficient inventory of sites would eventually be obtained to determine what microenvironments were chosen or rejected for utilization by prehistoric populations.

A random transect sampling program was devised to select areas for testing. Four hundred and eleven arbitrary lines were drawn at 1 mm intervals across an aerial photograph composite. These imaginary lines transect the west side of the park from east to west at 11.75 m intervals. Test excavations were conducted along four randomly selected lines during the 1977 field season (Fig. 37). Selection of these lines by a random numbers table ensured an equal chance for all types of microenvironments to be tested.

Test pits were excavated at intervals of approximately 34 m, each test point being marked on air photographs. The
Figure 37. Randomly selected transects, prehistoric site survey, Batoche 1977 (drafting by K. Walton).
excavation points were located on the ground by using the photographs in conjunction with pace measurements and compass. At each point, four pits were excavated at the corners of a square approximately 5 m x 5 m. Each test pit measured approximately 50 x 50 cm and was excavated to a depth of 20 to 30 cm. Test excavations at four prehistoric sites in 1976 revealed that almost all lithic material was within 20 cm of the surface and that very little was found below 30 cm. Test pit depths of 20 to 30 cm were sufficiently deep to pass through cultural levels and encounter C horizon soils in almost all cases. When a site was encountered, additional test pits were used to determine site extent and artifact density.

Two persons excavated test pits using a short handled spade. Sod was removed in a thin layer and 1 to 5 cm thick layers of soil were rapidly excavated. Backdirt was examined thoroughly as it was replaced by trowel. This technique allowed the soil to be examined during both shovelling and backfilling. Artifacts smaller than 1 cm were observed during excavation and flakes as small as 2 mm were collected when backfilling. The testing program took place over 21 days in which 768 pits on four lines were excavated.

The testing lines were fairly well spaced from north to south in the park (Figure 37) and, in running east to west, they crosscut the following vegetation, landform, and soil types:

Landforms: I - well-drained aeolian plains
   II - poorly-drained aeolian plains
   III - riverbank complex
   IV - alluvial plain

Soils:  
   I - dune sand, well drained
   II - dune sand, poorly drained
   III - dune sand - meota
   IV - hillwash
   V - alluvium
Vegetation:  
I - forest  
II - upland shrub  
III - flood plains  
IV - wetland  
V - grassland  
VII - cultivated

Test areas also included all types of terrain and all levels of elevation.

Seven new sites were located by test excavations and three of four sites located by surface survey in 1976 were also encountered. Photographs of vegetation, soil type and site view were taken. Each site was assigned a Parks Canada site number and was plotted on aerial photographs as well as soils, vegetation and landform maps (Abouguendia and Coupland 1976). Other prehistoric variables were recorded at each site.

It can be observed from Table 1 that all sites located by test pitting were found on dune sand in the well drained aeolian landform. The conjunction of the landform and soil type was not particularly significant since these two types occurred almost solely in association with each other. Selection for either or both variables by a prehistoric population would produce the same observed site distributions.

It is almost definite that those areas under cultivation on the west side in 1949 were originally under grassland vegetation. Redman and Ripley (1976) conclude that the current pattern of clearings and wooded areas is similar to that which existed prior to agriculture. Heavy machinery for extensive clearing was not widely used prior to 1950. Clearing on the large west side flat would have been impractical and, in addition, too costly in relation to the productivity of the soil. No bush piles were observed around the margin of the large flat and no evidence of bush burning was found during test excavations. On the other hand, the clearing of a portion of river lot 19 in the 1950s produced brush piles
around the field margins and deposits of ash, burnt wood and bone are clearly visible in test excavations. The portion of lot 19 cultivated prior to 1950 appears to have natural grass/forest blending at the margins. Once again, no brush piles were evident at the sides. The conclusion was that both areas of the west side cultivated in 1959 were originally under grassland vegetation.

This conclusion meant that both sites 90N and 49N were grassland prior to cultivation. This produces three sites on grassland, two on the grassland/forest margin, four on or very near margins between mixed grassland/upland shrub and forest, and one partially in upland shrub/partially in forest. Based on this small sample, the favored location was grassland immediately adjacent to forest. Comparisons of 1949 and 1962 aerial photos, 1885 photographs, current vegetation and observations of forest and shrubs spread on the ground indicated that the amount of upland shrub has increased substantially since agriculture began in the area. In addition, forest has increased in vigour and extent. Consequently, although current maps are a valid indication of prehistoric vegetation, sites previously located on or near grassland/forest margins are now covered by shrub or mixed shrub/grassland.

Any site now under upland shrub or mixed upland shrub and grassland should be interpreted as previously being under grassland. This means that nine of ten sites were at least partially on grassland.

The favoured terrain for occupation seems to have been a level area with adjacent slopes up to the north and/or west and down to the south and/or east. Whether these distributions were due to active choice or simply a result of the prevalence of this slope type could not be properly determined. This type of setting naturally gave shelter from the north and west winds. Interpretation of a selection for view was difficult as the increase in vigour, density and area of poplar forest and shrub have altered this variable remarkably since the advent of cultivation.
An interesting site setting was represented at sites 83N, 84N, 89N and 92N. These sites were all located in small clearings of grass or grassland/upland shrub, totally or almost totally surrounded by forest. As discussed above, these should probably be interpreted as grassland locations, surrounded by forest. These locations could possibly have been selected to take advantage of winter shelter offered by the surrounding trees. All four of these sites are also very small, producing only one to four artifacts in spite of fairly extensive areal testing.

Although not recorded in Table 1, it seems that sites were located adjacent to potential sources of water. Sites 83N, 84N and 89N were adjacent to or within 50 m of a small coulee which may have contained water in the prehistoric period. Sites 30N, 31N, 49N and 90N were within 110 m of poorly drained aeolian plains and poorly drained dune sand. The high water table and impervious subsoil in this area may have produced standing water during the prehistoric past. Sites 30N and 92N are also within 210 m of wet, depressed slough areas. Sites 31N, 82N and 90N were within 260 m of the river.
Table 1. Prehistoric site location variables.

<table>
<thead>
<tr>
<th>Site</th>
<th>Landform</th>
<th>Soils</th>
<th>Vegetation</th>
<th>Artifacts</th>
<th>Site Extent</th>
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<tr>
<td>30N</td>
<td>x</td>
<td></td>
<td>x x x</td>
<td>flake and core fragment</td>
<td>100 m x 100 m</td>
</tr>
<tr>
<td>31N</td>
<td>x</td>
<td></td>
<td>x x x</td>
<td>possible biface plus a core remnant</td>
<td>100 m x 100 m</td>
</tr>
<tr>
<td>49N</td>
<td>x</td>
<td>x</td>
<td>x x</td>
<td>eight flakes</td>
<td>200 m x 70 m</td>
</tr>
<tr>
<td>82N</td>
<td>x</td>
<td>x</td>
<td>x x x</td>
<td>725 items including flakes, core fragments, bone, fire cracked rock and a pecking stone</td>
<td>180 m x 25 m</td>
</tr>
<tr>
<td>83N</td>
<td>x</td>
<td>x</td>
<td>x x x</td>
<td>one biface</td>
<td>isolated find</td>
</tr>
<tr>
<td>84N</td>
<td>x</td>
<td>x</td>
<td>x x x</td>
<td>one core</td>
<td>isolated find</td>
</tr>
<tr>
<td>87N</td>
<td>x</td>
<td>x</td>
<td>x x x</td>
<td>one flake</td>
<td>isolated find</td>
</tr>
<tr>
<td>89N</td>
<td>x</td>
<td>x</td>
<td>x x x</td>
<td>three flakes, one core fragment</td>
<td>5 m x ?</td>
</tr>
<tr>
<td>90N</td>
<td>x</td>
<td>x</td>
<td>x x x</td>
<td>one biface, three flakes</td>
<td>5 m x ?</td>
</tr>
<tr>
<td>92N</td>
<td>x</td>
<td>x</td>
<td>x x x</td>
<td>three core remnants</td>
<td>5 m x ?</td>
</tr>
</tbody>
</table>

I/II forest/shrub \( f=1 \)
I/II/V forest/shrub/grassland \( f=1 \)
I/V forest/grassland \( f=2 \)
II/V shrub/grassland \( f=3 \)
V grassland \( f=3 \)

Total \( \approx 3 \)

\( \approx 3 \)
Summary and Conclusions

The 1977 field season of archaeological research at Batoche was oriented towards a continuation of the previous year's historic resource assessment as well as the excavation of two major socioeconomic complexes within the Batoche Village proper. This work forms the second year of a four year program, the major objective being an understanding of human history in the park, particularly concentrating on the Métis and their involvement in the 1885 insurrection.

The resource assessment basically took the form of historic and prehistoric archaeological site surveys. The former consisted of locating sites identified in historic accounts but not located in 1976. As well, historic site survey was conducted in leisure time hours outside of the park perimeters. The prehistoric site survey totally concentrated on the west river area where a random transect sampling scheme was employed. Ten new prehistoric sites were located.

Excavation was conducted in four general areas (testing operations) as well as at two major sites in the village of Batoche. The test programs included the village as a whole, Batoche's blacksmith shop, the nonstructural areas of the Carrière complex and the nonstructural areas of the Fisher complex. The structural features of the latter pair constitute the major sites selected for intensive excavation. With the possible exception of the Blacksmith shop testing operation, each of the excavation programs proved to be relatively successful. Future analyses of recovered materials will expand preliminary interpretations offered in the preceding report.
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Abstract

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The 1978 Batoche archaeological program was the final year of field research at Batoche National Historic Site. Research objectives for the project included a continuation of the archaeological survey and resource assessment work initiated in 1976, an intensive excavation of two sites in the Batoche village area, and a preliminary test excavation of military features associated with the 1885 Northwest Insurrection. The following report is a summary description of this field work including methodology and the most substantive results.
The Batoche archaeological project was initiated in 1976 under the direction of Paul Donahue and continued under his supervision until the spring of 1979. With Donahue's departure, the responsibilities of the program were placed on my shoulders. One of those responsibilities was the writing of a report on the 1978 field season. Since I had no active participation in the fieldwork and, in fact, have had only limited exposure to the park, this task proved somewhat difficult. I have attempted to standardize the descriptive contents of the report with those produced by Donahue and others in 1976 and 1977. The report contents are extracted from field records and summary reports by each of the archaeological field supervisors.

The 1978 field project employed a large number of individuals who were divided into four crews. Bev Nicholson conducted the archaeological survey and was aided by one other person. Jack Ives supervised the excavation of Letendre's store and had a five person crew. Karie Hardie, with six crew members, undertook the Letendre house excavations. Finally, a six person field lab for artifact processing was supervised by Dana-Mae Grainger. Paul Donahue was overall project director.
Introduction

Batoche National Historic Park, the site of the major engagement in the 1885 Northwest Insurrection, has been singled out for substantial interpretive development by Parks Canada (Fig. 1). The park encompasses an area in excess of 2,700 acres which is sectioned by the South Saskatchewan River. It includes a variety of geographic features with both open grasslands and forested zones. Batoche, as an historic Metis settlement, was firmly established in the early 1870s (see Payment 1977). Probably the major stimulant in its early growth was its location at the intersection of the Carlton Trail and the South Saskatchewan River. In 1885 it was the focal point of the Northwest Insurrection with the final engagement between the Canadian and Metis forces being staged there. Since that time Batoche has gradually declined as a commercial and population centre. However, it continues to be recognized by the Metis as a most significant site in their historical development.

The 1978 field project at Batoche was the third successive year of archaeological research. The thematic research framework under which the project operated has been previously defined by Donahue (In press: 3). These goals, in combination with development oriented objectives, determined the specific nature of the 1978 investigations. In this regard, the project was to:

1) continue archaeological survey and resource assessment work within the park and, at the request of other divisions, selected other non-park areas;

2) undertake major excavation projects at two sites within the Batoche Village proper, and
Figure 1. Batoche National Historic Site and surrounding regions (Drawing by K. Graham-Stevenson).
3) undertake a preliminary investigation of selected military features associated with the 1885 engagement.

The following report is largely a descriptive summary of the 1978 fieldwork. It is by no means comprehensive in either interpretation or analysis; albeit, several hypotheses are offered regarding individual sites or features. The recovered material culture remains are in the process of being analysed and, upon completion of this work, should offer additional new insights into Batoche in particular and Metis culture in general.
Batoche Archaeological Survey

Ongoing from the inception of archaeological fieldwork at Batoche, the archaeological survey program was first intended to gain an adequate knowledge of the resource base encompassed within the park (see Donahue In P.). Secondly, however, its results were to be used as the basis for research on prehistoric and historic land use patterns in the Batoche area (Putt In P.). The first year of the Batoche program almost totally concentrated on a resource assessment with limited test excavation. Over 30 historic sites were recorded as well as a large number of prehistoric resources. In addition, a limited survey of historic buildings outside of the park perimeters was undertaken. The 1977 field season, while largely oriented toward structure excavations in the main village of Batoche (Donahue et al., this volume) continued the survey work by implementing a subsurface testing program on Parks Canada properties on the west side of the South Saskatchewan River. This work was primarily directed towards the location of prehistoric resources with no visible surface features. A second aspect of the 1977 survey concentrated on the location and test excavation of historic sites known to have been present from historic sources but not located in 1976.

The 1978 survey was to continue the subsurface sampling program west of the South Saskatchewan River. Following the completion of this work, a previously recorded large prehistoric site adjacent to the church and rectory complex was subjected to a systematic surface collection. Finally, at the request of Historic Sites Planning, a preliminary survey was conducted at
the Fish Creek battle site. As discussed in a later section, the survey crew also undertook test excavations at the site of General Middleton's zareba southeast of the Batoche Village.

Prehistoric Sites and a Transect Sampling Strategy in the West Park

Because the park areas west of the South Saskatchewan River are not under cultivation, the detection of archaeological sites from surface remains alone is highly restricted. The lack of cultivation, however, serves to enhance the resources in that they tend to be little disturbed since the time of occupation.

Recognizing the problems of finding sites in the west river zone, the 1977 field program implemented a sampling strategy whereby small excavation units were dug at periodic intervals along specified transect lines. Using aerial photographs, these lines were drawn from the water's edge to the western park boundary at ground intervals of ca. 11.75 m. Transects were chosen for inspection via a random numbers table and 50x50 cm pits were excavated at points every 34 m along the line. Four transect lines were completed in 1977 and seven previously unidentified prehistoric sites were located (see Donahue et al., this volume).

The 1978 survey crew, with modifications, continued to employ the sampling scheme. The modifications, basically, were designed to enhance expediency. Rather than lay in and excavate square test pits, a "post holing" method using circular pits ca. 50 cm in diameter was employed. Although exact horizontal control was lost, the pit could be quickly dug once a point was located. All materials were screened through \( \frac{1}{4} \) inch mesh as in 1977. The second modification was to reduce the interval size between testing units from 34 to 26 m. This provided wider spatial coverage. Prior to outlining the results of this survey, one additional adjustment in implementation should be noted. In 1977, transect starting points were plotted on aerial photo-
Figure 2. Transect locations of 1978 West Park Survey (Drawing by K. Graham-Stevenson).
Table 1. Prehistoric Site Variables

<table>
<thead>
<tr>
<th>Site Number</th>
<th>Lithics</th>
<th>Bone</th>
<th>Nearby Water Source (300 m)</th>
<th>Directions of Land Rise</th>
<th>Drainage</th>
<th>Inferred Prehistoric vegetation</th>
<th>Location</th>
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<tr>
<td>93N</td>
<td>1</td>
<td>*</td>
<td>Yes</td>
<td>East</td>
<td>Good</td>
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<td>Batoche Park-west bank</td>
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<tr>
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<tr>
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<td>*</td>
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<tr>
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<tr>
<td>109N</td>
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<td></td>
<td>Yes</td>
<td>West</td>
<td>Good</td>
<td>Brush</td>
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<tr>
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<tr>
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<td>11</td>
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<td>Bush</td>
<td>South of Batoche-east bank</td>
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<tr>
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<td>*</td>
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<td>West</td>
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<td>Southwest</td>
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</tr>
<tr>
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<td>West</td>
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<td>Prairie</td>
<td>Batoche Park-west bank</td>
</tr>
<tr>
<td>121N</td>
<td>3</td>
<td></td>
<td>Yes</td>
<td>Level Plain</td>
<td>Good</td>
<td>Prairie</td>
<td>Fish Creek-east bank</td>
</tr>
<tr>
<td>122N</td>
<td>11</td>
<td></td>
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<td>Prairie</td>
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</tr>
<tr>
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<td>Good</td>
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</tr>
<tr>
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<td>Prairie</td>
<td>Fish Creek-west bank</td>
</tr>
<tr>
<td>125N</td>
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<td>Yes</td>
<td>Level Plain</td>
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<td>Brush</td>
<td>Batoche Park-west bank</td>
</tr>
<tr>
<td>126N</td>
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</tr>
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<td>8</td>
<td></td>
<td>Yes</td>
<td>North Slope</td>
<td>Excessive</td>
<td>Prairie</td>
<td>Fish Creek &amp; S. Sask. River</td>
</tr>
</tbody>
</table>

*Present
graphs and visually identified on the ground. Transects were then run along the magnetic north line to the park perimeter. In 1978, the starting point was chained in from a datum reference and, to conform to the aerial photograph, a magnetic declination of ca. 22 degrees west was applied in determining transect orientation. This difference should make the task of relocating transect positions easier.

The subsurface testing program in 1978 saw the completion of nine lines in which 1538 pits were excavated (Figure 2). Twenty-one new prehistoric sites (Table 1) were located using this strategy. Prehistoric sites were identified by the presence of worked lithic materials. In addition, several previously recorded sites were reinspected and additional materials collected. Although somewhat general in nature, Nicholson has typified site locational variables as being

...well drained land on open ground with the land rising to the west and within 300 metres of a water supply. As a general observation this statement is supported by Putt's Survey (1976 and 1977) and the 1976 and 1977 surveys conducted by the Regina Museum of Natural History....(1978: 3-4).

Recovered assemblages varied in size yet none had an abundance of materials. Few sites provided diagnostic artifacts from which culture historical or chronological inferences might be drawn.

Aside from those sites discovered in the west park, one additional site was located on the east bank of the South Saskatchewan River south of Batoche and five others were recorded during the preliminary survey of Fish Creek (Table 1).

**Historic Sites**

Although not directly discovered through the west park sampling strategy, the following out of transect lines led to the identification of two historic sites without previous documentation. These include a possible early habitation site (21N143) and a rifle pit cluster (21N140)(Figure 2).
The habitation site was visually identified by a rectangular depression around which were a number of shallow pits. The rectangular depression, ca. 9 x 7.5 m in size, was enclosed by a low earthen embankment. Running off the south wall, a second narrow depression may have been an entrance way. Limited test excavation at this site did show the feature to be intentionally formed. Associated artifacts, however, were limited to a single sandstone cobbler fragment which is tentatively identified as a hammerstone. Since subterranean features are anomalous in regional prehistory, it is putatively related to the historic period. The form of the feature and the single artifact may suggest the site to be pre Batoche "hivernant" Metis. The evidence is extremely limited and further testing would be needed for a positive identification.

The rifle pit cluster was located on a sloped embankment commanding an excellent view of the South Saskatchewan River. It bordered on a wooded area of poplar with dense underbrush of Saskatoon and hazelnut. Four rifle pit depressions were noted.

Systematic Surface Collection of Site 79N
To increase the sample of prehistoric materials from the park and, hence, gain a better understanding of park culture history, it was decided to intensively surface collect one of the previously recorded sites. Site 79N was selected for this task. The site is located immediately west of the church and rectory complex on an upper terrace of the South Saskatchewan River. Previous test excavations at this site showed the primary deposits to lie within a 15 to 20 cm deep plow zone. The site was known to be relatively large in extent and, on the basis of previously collected materials, was thought to have been particularly rich in content. A cultural chronology for the site was absent due to the lack of diagnostic materials.
A 2 x 2 grid system was laid out over the site surface. The grid extended 200 m along the north/south axis and 70 m east/west. This included 1750 possible collection units. Because of site size and time limitations, it was feasible to collect only a ten percent sample. The collection strategy included ten east/west randomly chosen transects encompassing 350 units (Fig. 3).

For the most part, the site was covered by a sod layer making the collection task somewhat difficult. However, sod density was variable and where old swath was present, it was removed. The greatest abundance of materials were recovered along the southern end of the grid. Because of the sod, it is unlikely that a true spatial distribution was obtained. Future analysis of the collected assemblage should provide further insights into this site in particular and the prehistory of the park in general.

Fish Creek Battle Site Survey
A preliminary survey of the Fish Creek battle site and adjacent terrain was undertaken at the request of Historic Sites Planning (Figure 1). The major objective was to gain an overview of the historic resources within the boundaries of the Parks Canada properties and to accurately locate the major site of the engagement. Toward the latter end, the location of one specific structure, the residence of Mme. Tourand, was considered to be a key identification point.

The survey technique was simply a "walk over" and surface inspection of all areas along both shores of Fish Creek up to its juncture with the South Saskatchewan River and the site of the post battle Canadian Forces camp. The survey was first initiated in the early spring and continued in late summer when large segments of the area were in fallow.
Figure 3. Site 79N. Darkened areas represent collection transects (Drawing by K. Graham-Stevenson).
Although, as previously noted, several prehistoric sites were recorded, the survey proved to be somewhat inconclusive regarding the battle site position. First of all, the current landscape features could not be matched with those distinguishable in historic photographs (Figure 4). Moreover, since the Metis did not excavate rifle pits but, rather, used natural dips and depressions (Woodcock 1975: 198), no marked features were expected. Finally, the physiographic detail within the 1891 survey notes of J. Lestock Reid (1891) does not appear to conform to that currently present.

While the above statements may seem to imply that the battle site could possibly be located on properties other than those surveyed, this is not wholly the case. Both the photographs and Reid's notes are subject to interpretation. The photographs were taken well back from the actual battle scene and, beyond a general lay of the land, it is difficult to find specific physical markers. Likewise, Reid's survey notes are far from adequate particularly with regards to scale (Letourneau 1980: pers. comm.). It is notable that two depressions, one of which is a cellar, were identified in the general vicinity of Reid's positioning of the Tourand house. Finally, the survey along Fish Creek north of the present park was unable to find a suitable locale that could possibly have served as a crossing point for wagons.

In terms of positive evidence for the battle, aside from the putatively identified cellar, a single artillery shell fragment constitutes the only recovered item of significance. It was found protruding from the surface of a field to the north of the park.

The residence of Mme. Tourand was shelled by the Canadian Forces during the Fish Creek battle and, apparently, had at least partially burned (Payment 1980: pers. comm.). Whether the structure was abandoned or rebuilt after the battle is presently unknown. As stated, two depressions were located in the general vicinity of Reid's (1891) positioning of the
Tourand house. These were located on the crest of a hill overlooking the ravine just north of the park perimeters. Limited test excavation into one of these depressions showed the feature to be a filled in cellar of ca. 1.2 to 1.3 m in depth. The lowest stratum within the cellar had a scatter of boards and no direct evidence for burning. The remaining strata appeared to contain post abandonment fill. Whether this building is the 1885 Tourand house or a later residence is uncertain. Further testing may provide a more positive interpretation.

Summary

The 1978 survey program at Batoche was a continuation of the resource inventory and assessment work initiated in 1976. In this regard, three specific projects were undertaken aside from a test excavation program of military features discussed later. These include a subsurface sampling program in park areas west of the South Saskatchewan River, the surface collection of a previously recorded large prehistoric site (79N) and a preliminary evaluation of resources at the Fish Creek battle site. In addition, a small number of other prehistoric and historic sites was located.

The resource inventory within the park is now considered to be relatively complete for the historic period and a large number of prehistoric sites has also been documented. These data have significant import from both the perspective of thematic research ends and park development objectives. With reference to the latter, such data are integral to the drafting of a comprehensive management plan for the park as well as providing the basis for a cultural resource management program for sites not related to period interpretive development.
To match his growing social and economic position, in 1878 Xavier Letendre (dit Batoche) contracted for the construction of a new and elaborate residence in the village of Batoche (Payment 1977: 42-43, 1979: 89). Built by a French Canadian tradesman, Ludgar Gareau, the residence has been described by Payment (1977: 89) as

a large two-sectioned log house on a fieldstone foundation, clapboarded and according to some accounts, painted white with green trim. It was somewhat reminiscent of a chateau, with its ornate wood columned verandah, barge-boarded trimmed roof gables and decorative bay dormers.

Roughly following a T-shaped pattern in ground plan, the building had an approximately 9.5 x 7.3 m main section, the longer axis oriented southwest/northeast, and extended central annex (ca. 6.5 x 4.5 m) off the back wall (Figs. 5, 6). The elaborate verandah noted above was not an original feature of the house, it being added in 1886 (Payment 1977: 89). However, prior to that time a small porch did exist along the front facade (Payment 1979: pers. comm.).

From the available photographic record, it is difficult to get a total perspective of the properties surrounding this structure, particularly as they changed over time. To the southeast was the dual building Carrière complex (Donahue et al., this volume, Fig. 6). Although the original portion of this structure may have been used as an early store or residence by Letendre (Payment 1977: 89), by 1885 he was either renting or allowing the Carrière brothers to use it as accommodation. Other outbuildings in immediate association with the Letendre house in 1885 are most difficult to document. The 1886 Winnipeg
Figure 5. Batoche's house, circa 1890 (Courtesy of Saskatchewan Archives Board).

Figure 6. Letendre's house, circa 1886 (Courtesy of Saskatchewan Archives Board).
Sun sketch of Batoche (Fig. 7) shows at least two small outbuildings along the terrace edge to the north and south. The log structure south of the Carrière complex was also probably owned by Batoche.

Some time after 1885 and possibly included as part of the post rebellion renovations, a seemingly square hipped roofed log structure was built to the immediate rear of the central annex (Fig. 6). It does not appear to have been attached to the main building and had its own door to the east. Beyond storage, the function of this building can only be speculated upon.

If Letendre set out to construct a monument to his socio-economic position, there can be little doubt of his placement in local Metis society. His residence was worth approximately $5,500 in 1885 and was considered to be one of the most sumptuous homes west of Winnipeg (Payment 1979: 89). It also served as a focal point for many distinguished travellers in the Saskatchewan district (ibid.).

Following the 1878 construction, the Letendre family appears to have lived uninterrupted in their home until the 1885 rebellion. At that time, the Metis force commandeered the building and used it for accommodation and as a hospital (Payment 1977: 43). During the ensuing battle, Letendre's house suffered some damage. However, as noted previously, repairs and renovations in 1886 upgraded the building to its former mode. Letendre appears to have been among the few Metis to suffer only a short term setback to his commercial enterprises as a result of the rebellion (Payment 1979).

Letendre, with his family, continued to live in his home until 1895 when 20 acres of his property along with his residence were sold to the Crown for use by the Northwest Mounted Police. The latter used the residence as a barracks up to 1906 (Payment 1977: 113). Following 1906, the building was abandoned and appears, from subsequent photographs, to
Figure 7. View of Batoche, Winnipeg Sun, May 8, 1886.
have quickly fallen into disrepair (Fig. 5). In ca. 1915 the structure was dismantled with the lumber apparently being used for a barn in Fish Creek. By 1948, the area surrounding the Letendre residence was under extensive cultivation (Fig. 8).

Excavation Methodology and Objectives
The excavation of the Letendre residence during the 1978 field season must be considered an integral part of the interpretive development of the Batoche Village proper. With Letendre being one of the major village personalities and his home an early historic landmark, his importance cannot be understated. In addition, however, the excavation fits well into the long term research program for archaeology at Batoche (Donahue et al., this volume). Letendre was unmistakably a person of very high socioeconomic position and, as such, provides specific insights into one end of the organizational scale at Batoche. How Letendre's position is reflected in his material culture remains when compared to those of the general Metis populace was a problem of major interest.

On a more development related level, an excavation of the former Letendre building served to provide specific details on construction mode and landscape features. An extension of this work over the entire Letendre residential complex also fostered data on outbuildings, grounds features, interpretable activity areas and the spatial relationships of each to the primary building.

As in other major excavations in the village of Batoche, the Letendre residential properties were to be treated as a single socioeconomic complex as defined by Donahue et al. (this volume: 1). Initially this concept posed some difficulty in terms of boundary definition and the presumed relationship of this unit with that of the Carrière brothers (see Donahue et al., this volume). It was decided, nevertheless, that the Letendre complex would be independent of the
Figure 8. Foundations of Letendre house, 1948, (Courtesy of University of Saskatchewan Library).
latter, at least for purposes of analysis. As a result, the northern boundary of the Carriere complex, grid line N4550, was also to serve as the southern perimeter of the Letendre complex (Fig. 9). Two of the three other borders, those of the north and east, were again arbitrarily established using the Batoche master grid (respectively, N 4600 and E3950). The western perimeter, on the other hand, was taken to be the slope leading towards the river. This slope, while being a boundary marker, was also to be given prime research consideration since it would have served as a natural location for refuse deposition.

The excavation program is best considered as being composed of two independent operations. The first of these is that of a general test excavation of the entire socioeconomic complex exclusive of the residence proper. The second operation concentrated on the Letendre house, the objective being to excavate as much of it as possible within the given time and manpower limitations. Each of these programs and their results are subsequently discussed.

Letendre Residential Complex Testing Program

The testing program for the Letendre complex initially followed an interval transect sampling strategy where 10 east/west oriented trenches spaced 5 m apart were excavated. These trenches were 0.5 m in width and had variable lengths ranging up to 60 m (see Fig. 9). Since a majority of the area to be tested had undergone some form of past cultivation, excavation was undertaken with shovels and provenience data were kept by means of 1 m long units. Material from excavated matrices, however, was screened through ¼ inch mesh. This transect strategy provided a sampling fraction in excess of 10 percent.

The primary objective of the sampling scheme was to locate features and/or structures for which evidence existed only
Figure 9. Letendre Residential Socio-economic Complex boundaries and excavation units.
beneath the disturbed plough zone. As well, it was hoped that specific types of activity areas might be identified from various artifact concentrations isolated through a functional and spatial analysis of the material culture assemblage. Given the size of the sampling fraction, it seems probable that at least the means for fulfilling these goals have been accomplished. It should also be pointed out that the actual area of excavation was expanded further following the trenching program with a more intensive investigation of specific features.

As a whole, the soil profile for the area tended to be consistent. This included an upper Ap soil horizon (plough zone) underlain by a dark silty loam B horizon which graded into a lighter yellowish brown C horizon. Varying between 10 and 25 cm in depth, the termination of the plow zone also served as the termination point for excavation if a lower feature was not encountered.

The testing program uncovered a variety of features ranging from simple soil disturbances in the B horizon to a fence line in direct association with the Letendre house. Subsequent descriptions concentrate only on the major features not considered to be part of the residence proper. These include a pit feature and clay pad to the southeast of the house, a relatively large midden located along the terrace slope to the west and a possible rifle pit in the same area.

Pit Feature (21N9D)
Undetected prior to the trenching program, this feature (Fig. 10) was visible only after the plow zone had been removed. Rectangular in outline form, the feature perimeters of ca. 2.4 x 2 m were marked by an inclusive disturbed zone of mottled light to dark brown soil. Further excavation of the southern half showed this disturbance to be an infilled straight sided pit approximately 1.3 m deep. Although scattered
Figure 10. Location and profile of pit feature 21N9D.
wood sections were found in the uppermost levels, there was no direct evidence for either cribbing or other means of wall stabilization. As well, evidence for a suprastructure was also lacking. The pit floor was marked by a thin stratum of dark soil, probably related to floor use, and a dense tamped clay zone overlying a sand and gravel horizon. Few cultural materials were found in the pit fill and an equally small number was recovered from the floor.

It is improbable that the just described pit is a cellar for a major structure. The lack of suprastructure evidence and the absence of any quantity of cultural material seem more indicative of a temporary cold storage or root cellar. Scattered deposits of birch bark and wood fragments in the depression floor within the black stratum might also suggest an ice house. Whatever the case, the pit does not appear to have had a long period of use and its size would suggest that the fill used in levelling was brought from a borrow pit rather than obtained on site.

Clay Pad Feature
Slightly southeast of the preceding feature (Fig. 11) what appeared to be a clay pad was exposed. Surface stripping of this feature showed it to cover an elongated rectanguloid area approximately 2.5 x 1.2 m oriented east/west. Scattered lenses of ash and a single wooden post 80 mm in diameter were also revealed. Soil augering and excavation of a 1.5 x 0.5 m trench (21N906B1236) through this feature showed a depth of less than 0.8 m. The small assemblage of artifacts associated with this pad is varied in nature (nails, ceramics, fauna) and does not clarify its specific function. In addition, the single occurrence of a wooden post does little to aid interpretation.
Figure 11. Clay pad feature excavation.
Refuse Midden (21N9G, 21N9E)
West of the Letendre residence and roughly oriented northwest to southeast, the terrace edge drops off sharply towards the South Saskatchewan River. This slope, by its nature, would appear to create a natural refuse dumping location. Test excavations along this perimeter not only bear out such an impression but show virtually the entire slope to be one large midden which had been used over a considerable time span.

Two areas of this midden were tested (Fig. 12) and, eventually, the material culture assemblages will be compared for chrononological variation. With the exception of a small number of Northwest Mounted Police artifacts which came from one of these areas (21N9G), the materials and their associated contexts, at least in a preliminary sense, appear similar. The midden includes a large sample of faunal remains interspersed with concentrations of wood ash and artifacts. Interestingly, the majority of the faunal remains are not burned suggesting the ash is related to a separate event. Given that the greatest density of refuse occurs on the steepest slope of the embankment, it would seem that an effort was made to throw this material as far over the edge as possible.

Rifle Pit (21N906B1600)
A slight depression southwest of the residence and at the foot of the above described slope at one time may have been a Metis rifle pit (see Putt In P.). This depression, 2.5 x 3 m in size, was sectioned by a single 3 x 1 m trench. While its original depth appears to have been approximately 90 cm, the pit had later been filled with refuse identical to that of the adjacent midden. As with other Metis rifle pits, the limited use of such a feature is not conducive to the deposition of major associated deposits. Therefore, the rifle pit identification is rather tentative.
Figure 12. Refuse midden location and profile.
Figure 13. Letendre house excavation (Drawing by K. Graham-Stevenson).
Letendre Residence and Associated Features
The excavation of the Letendre residence, aside from exploratory test excavations conducted in 1976 (Donahue In P.) consisted of exposing a large area around the outside of the extant foundation remnants. In addition, a central trench and selected other areas of the remaining cellars were excavated within the interior. On the basis of construction modes for the foundations of the main house and central annex, it would appear that each was built independently. For the purposes of the following discussion, the foundations and cellar features for each are discussed separately. Other features in direct association with the Letendre residence are also reviewed.

Main Structure Foundations and Cellar
The foundations for the main portion of the Letendre residence, as also for the central annex discussed later, remain relatively intact (Fig. 13). Outlining a 9.3 x 7.6 m understructure, and main building foundations have been constructed of various sized angular fieldstones of a limestone-like variety of material. Prior to the actual laying of these foundations, a footing trench had been excavated into which they were placed. Varying in width, this trench was dug to a depth of 50 to 60 cm. Following the trench excavation, it appears that a single course of fieldstones was laid in and topped with mortar. This process was continued to a height of approximately 1 m. The entire outside wall of the foundation, the top, and the inside wall up to the ground surface were then faced with mortar. Why this process was not continued for the above surface inside wall is not known. After the trench had been refilled, the end product was a foundation system approximately 50 cm wide which extended 40 to 50 cm above the ground surface. A slight rise in the surface level on the outside of the foundations may suggest that it had been banked with earth to aid in rainfall runoff.
Limited evidence for understructure framing was present. This came in the form of timber impressions in the mortared upper surface of the north foundation wall. An east/west running continuous ridge indicates that the sill had been placed directly into the wet mortar. This sill appears to have been 13 cm in width and was composed of a number of segments. The longest of these was 3.09 m. Transversely situated and abutting this sill are a number of slight impressions which seem indicative of a series of north/south oriented joists. It is probable that the flooring was set directly on these joists.

The interior cellar of the main house was noted prior to excavation as a ca. 4 x 5 m depression located in a roughly central position within the foundation walls. From the appearance of the slope and depth of the cellar walls, it was apparent that this feature had undergone slumping and/or had been partially filled. The initial excavation strategy (Fig. 13), that of a 1 m wide lengthwise trench, was to determine the cellar form and identify any structural features which might be present.

As the stratigraphic profile of this trench indicates (Fig. 14), a considerable amount of fill had been deposited in the basement. However, since a majority of this material was plaster rubble it undoubtedly resulted from the dismantlement of the building as opposed to intentional levelling. The stratigraphic composition is largely heterogeneous with various strata of clay, sand, loam and plaster. Underlying these is the original cellar form where floor and walls consist of unaltered B horizon soils.

Following the excavation of the lengthwise trench through the main house cellar and that of the central annex, it was decided to fully expose the total southeast quadrant within the interior of the foundation perimeters (Fig. 13). As well, two additional excavation units were opened in the northwest corner of the foundations to expose the interior face. The results of this work allow for a relatively accurate assessment of the original cellar feature.
Figure 14. Profile of cellar features, Letendre house (Drawing by K. Graham-Stevenson).
The original cellar beneath the main house does not appear to have had an outside entrance. Therefore, there can be little doubt that access was gained through the interior, possibly by means of a trap door. Moreover, given the central position of the cellar within the foundation system, this entrance must have been located in one of the main rooms of the lower level. In terms of size, the cellar would have measured ca. 3.5 x 4.5 m and had a standing height below the floor of roughly 1.7 m. Cellar walls were neither cribbed nor had any other stabilizing feature. Similarly, a wooden floor was absent. It is also important to note that in both the floor and walls, the soil was not tightly compacted and was probably not intentionally tamped.

The above characteristics, particularly the lack of structural features, suggest a highly limited use of this feature. The absence of major cultural deposits on the floor area and the access from one of the main floor front rooms support this assertion. Its most likely function, if one did exist, might have been that of long term storage.

Central Annex Foundations and Cellar
The central annex of the main house also had both a stone foundation and interior cellar. Although historic sources are unclear as to whether this annex was built as part of the main house construction, differences in the foundation system suggest that it was not. This is not to say that one was built at a substantially later date although such a situation may eventually prove to be the case. Rather, it seems more reasonable to argue that the foundations for each segment were laid independently and later joined.

The central annex foundations (Fig. 15), prior to their excavation, were composed primarily of river cobbles laid in such a way as to produce a flat outside surface. Although it appears that only minimal amounts of mortar were used in the
Figure 15. Excavated features, Letendre house (Drawing by K. Graham-Stevenson).
construction process, at least one exterior side (north) has been faced with mortar. Interestingly, this wall is parallel to the south foundation of the main house. The height and width of the two foundation systems are directly comparable despite the fact that the annex did not have a top capping of mortar.

The excavation of the annex followed a pattern consistent with that of the main structure (Fig. 13). This work concentrated on exposing a major area outside the foundations in search of adjoining structural features and identifiable activity locales. Within the foundation perimeters, aside from the previously mentioned central trench, the eastern half of the cellar was excavated. This was supplemented with a pair of excavation units inside the space created by the junction of the two foundations.

With regard to the statements concerning different periods of construction for the annex and main house, two supportive lines of evidence were forthcoming from the excavation. First, and of major significance, the annex foundations were found to rest directly on the A soil horizon. Unlike the main house, a footing trench had not been dug below the surface. The second factor relates to the interceding foundations between the two major foundations (Fig. 15). While they also rested on the A horizon, they appeared to have been joined to rather than incorporated into both the south wall of the main house and the north wall of the annex. Moreover, both fieldstone and river cobbles were used in their construction; this is contrary to the fieldstone foundation of the main structure and the river cobble foundation of the annex.

The central annex cellar, as was the case of that for the main structure, was quite distinguishable prior to its excavation. Consisting of a ca. 4.2 x 2.7 m rectanguloid depression, this feature encompassed a majority of the area within the interior of the foundation perimeters. It was also evident that post abandonment slumping of the cellar walls had occurred.
The initial trench excavation (0.75 x 5.73 m) revealed a stratigraphic profile similar in context to the main house cellar (Fig. 14). In particular, there was no discernible pattern to the cellar fill with wood fragments, rocks and burned lenses incorporated into the mixed fill of clay, sand, black loam and plaster. In depth, the cellar would have measured roughly 2 m from the top of the foundation wall, thus providing sufficient standing room. As well, the remains of wooden flooring and plastered-over wall cribbing were encountered (Fig. 16). To more fully expose the latter features, the entire eastern half of the cellar was excavated.

The flooring consisted of a series of east/west running boards varying in width between 13 and 15 cm with a standard thickness in the range of 2.5 cm. Despite extensive decomposition, from its general appearance the flooring appears to have been slightly raised from the surface. Unfortunately, direct evidence for the size and spacing of joists was not found.

The cellar wall cribbing was also highly decomposed. Limited remains were found for both the north and south walls which, with a major intact segment along the east wall, illustrate that the entire cellar had been enclosed. The east wall was marked by two upright cornerposts 2.85 m apart. Each post was of squared lumber of roughly the same size (7 x 13 cm compared with 8 x 12 cm) and each had been set on a footing stone as a means of subsupport (Fig. 16, 17). Deterioration of the posts and slumping of the cellar wall did not allow a height estimate for the wall. Horizontal boards running between the uprights seem to have varied both in width and thickness although the extent of the latter may at least partially be due to wood decomposition. As with the floor, cribbing board widths ranged between ca. 13 and 15 cm with thicknesses of up to 2.5 cm. Horizontal boards seem to have been set in lateral grooves on the uprights and toenailed into place. In the case of the south post, a second upright appears to have been attached to the outside of the planking for stabilization. As illustrated in Figure 16 a plaster coating had been applied to the interior face of the cellar.
Figure 16. Wood remains in central annex cellar, Letendre house (Drawing by K. Graham-Stevenson).

Figure 17. Upright corner post, central annex cellar.
Because only the eastern half of the cellar was excavated, the actual width of the cellar floor was not determined. However, given the extent of the west side perimeters, an estimated width of 1.75 m is not unreasonable. With the east wall measuring 2.85 m, the usable floor space would have approximated 5 m$^2$. From the cellar size, both height and floor space, and the effort involved in construction of the floor and walls, there can be little doubt as to its intended long term use. Indeed, given its position under the central annex, it may well have been used as a cold room for vegetable and/or other food storage. This would be commensurate with the interpretation of the annex as a kitchen. As with the main building cellar, no evidence for an outside entrance was located. Thus it must be surmised that access was gained through the interior.

Associated Features of the Letendre Residence
Excavations outside the foundation perimeters of the Letendre residence uncovered a variety of features in direct association. These included evidence for the north and east facade verandah, a step or porch attached to the northwest corner of the central annex, a log structure off the south wall of the central annex and, finally, a front yard fence. Each of these features is subsequently described.

*Verandah*
As earlier noted, the elaborate verandah associated with the Letendre house (Fig. 5, 6) was not part of the original construction of Ludgar Gareau. Rather, it appears to have been added in 1886 when other major repairs were being undertaken as a consequence of the Insurrection. The verandah, completely extending along the north and east facades, replaced a smaller porch off the main north entrance. Evidence for the original porch was absent.
Figure 18. Footing stones for verandah, north facade.
Along both the north and east facades, a series of large flat stones was inset into footing trenches to act as foundation supports for the verandah (Fig. 15, 18). Scattered remnants of wooden sleepers and sills were found lying on top of a number of these rocks. Although deterioration of these members does not allow a total reconstruction of understructure framing, it does appear that the sills were oriented parallel to the building wall and were set upon shorter perpendicular sleepers. The largest intact segment of a sill was located in the northeast corner; it measured 1.2 m in length and was 24 cm wide.

The footing stones were originally laid in pairs running outward from the house wall. Given that the outer rock of each pair was consistently placed 1.3 to 1.5 m from the house foundation, the verandah width is estimated to have been approximately 1.5 to 1.75 m. The distances between pairs vary considerably ranging from 1.5 to 3 m along the north facade to 1.5 to 2.2 m on the east. On the northern verandah feature two rocks, 1.9 m apart and located in a central position, are thought to be footing stones for the stair structural supports. They are 1.9 m out from the foundation.

Annex Porch
In the northwest corner of the central annex, structural members were uncovered which seem indicative of a porch or step platform (Fig. 15). Unfortunately, historical photographs of the Letendre residence do not show this particular facade. A number do, however, reveal that a door to the annex was not located along the east or south walls thus providing at least a speculative basis for the above interpretation.

The porch or step is documented by a parallel pair of north/south running logs, 3.2 and 2.6 m in length, and a badly decomposed member oriented east/west. A single stone in the southwest corner of this feature may have been used as a
structural support. Of the north/south running sills (?), the inside specimen appears to have been set on a sleeper or shim. Interestingly, in either end of this specimen a ca. 4 to 5 cm hole had been bored; the function of these holes remains undetermined.

Although an interpretation of the preceding feature is based totally on speculation, the structural evidence does appear to be consistent with understructure framing. In this regard either a platform or enclosed porch was attached to both the south wall of the main residence and the west wall of the central annex. In size, the feature would have measured ca. 2.3 x 3 m. By implication, we should expect a rear entrance to the residence in this corner. As previously noted, aside from the main door to the front, evidence for additional doorways is lacking in the collection of residence photographs.

Log Structure
In an 1886 photograph of the Letendre residence, a seemingly hipped roofed log structure is notable to the rear of the kitchen annex (Fig. 6). This building does not seem to have been attached to the annex and its specific function is unknown. Since it does not appear in pre 1886 photographs, there is little doubt that it was erected during the summer of 1886.

The archaeological remains for this structure consist of a series of relatively intact, albeit badly decomposed, wooden sills and wall logs (?) as well as a number of foundation footing stones (Fig. 15). It appears that six footing stones were used in the understructure, five of which remain in place. The stones have been spaced at 1.7 to 1.9 m intervals running north to south with a 3.7 m interval between the northeast and northwest corners. Using the footing stones as evidence of building size, the structure would have measured
ca. 5.1 x 4.4 m, the longer axis being oriented north to south. An approximate interval of 1.2 m separated this structure from the south wall of the annex.

A large variety of decomposed wooden structural members was exposed during the building excavation (Fig. 15). A number of these are in direct line with the footing stones and are taken to be the north, east and west sill logs. The remaining specimens are tentatively thought to have been wall logs which were displaced during dismantlement.

Although the excavated materials from this building might eventually provide a basis for interpretation, only speculative statements regarding its use can currently be offered. Since the building was not attached to the main structure, it may simply have served as a wood shed or, perhaps, a storehouse for Letendre’s commercial enterprises.

Fenceline
Two linear series of post holes, roughly parallel to the north and west walls of the residence, were uncovered (Fig. 19). These features are taken to be the fence line enclosing the Letendre front yard. Unfortunately, excavation northeast of the structure was insufficient to outline its eastern perimeters.

The north/south running fence appears to have begun slightly north and ca. 5 m to the west of the northwest corner of the main building. Extending north for roughly 12 m, it included five major posts separated at intervals of 2.8 to 3 m. Perpendicular to this line the east/west running fence, including the corner post, also had 5 major uprights. Again spaced at intervals of ca. 2.8 to 3 m, this fence was positioned approximately 13 m away from the north facade of the residence (foundation). Although a length of 12.8 m was documented, excavation did not proceed far enough to the east to isolate the eastern corner or intercept the presumed eastern line. In all cases, post holes tended to be similar
Figure 19. Letendre house and features, circa 1886 (Drawing by K. Graham-Stevenson.)
with depths ranging from 35 to 50 cm below surface and hole diameters between 36 and 50 cm. In one case where a segment of the post remained intact, it revealed a squared upright of 14 x 16 cm size. This post had been sunk to a depth of 38 cm below surface.

Letendre Residential Complex Summary
The excavation program of the Letendre residential socioeconomic complex was undertaken in two major stages. The first consisted of an interval trenching test program throughout the properties adjacent to the main structure while the second was a concentrated excavation of the residence proper.

The testing program intercepted a number of features surrounding the building. These included a relatively large pit south of the house as well as a clay pad feature to its east. A large refuse midden over the western slope was also sampled.

The residence, prior to excavation, was well marked by an intact foundation system and two cellar depressions. Although it had been assumed that the building had been constructed by Ludgar Gareau as a single unit, differing materials used in various foundation segments seemed anomalous. Upon excavation, it was also found that the foundation for the main section of the house had been laid in a footing trench while the rear portion, a segment labelled the central annex, had been built directly on the ground surface. This would seem to suggest that Gareau either incorporated the foundation (or perhaps the whole building) of a previous structure into the residence or undertook the work in two phases. In addition to the foundation differences, the cellars associated with each segment differed radically. The main house cellar had no stabilizing structural features and appears to have been little used. Contrary to this situation, the cellar under the annex had both a wooden floor and wall cribbing. Aside
from the foundations and cellars, the residence excavation also revealed a number of other features. These included a step platform or porch in the northwest corner of the annex, the structural supports for the north and east wall verandah, the front yard fence and the foundation remains for a log building to the rear of the annex.
Letendre Store Complex

Aside from his pioneering efforts in the establishment of
the village of Batoche, Xavier Letendre was a central figure
in commercial enterprises throughout the region in general
and Batoche in particular (see Payment 1979). By 1872 he
had established a trading shop at the future village of
Batoche and was also operating a ferry service across the
South Saskatchewan River. Unfortunately, the site of his
original store(s) has not been located. By 1885 a new shop
had been erected although not yet provisioned, at the eastern
end of "Batoche Ave." (Payment 1979: 93). This work had
been contracted to Ludgar Gareau who, as earlier cited,
had constructed the Letendre residence in 1878.

Letendre's new store seems to have played a substantial
role in the 1885 engagement at Batoche. Commandeered by the
Metis forces, the cellar of the store was used to house their
prisoners. As well, at one point Louis Riel had supposedly
turned the structure into a chapel for his "new religion"
(Payment 1977: 42). It goes without saying that whatever
useable items were present in Letendre's store were confis-
cated by the Metis.

In his rebellion loss claims, Letendre described his
store as being "28 x 18 feet and high ceiling with an upstairs,
not quite finished..." (as cited in Payment 1977: 40). From
the available photographic record, it is best described as
being of two storey log and frame construction, possibly Red
River frame, with a false front (Fig. 20). On the front, two
large display windows flanked a central recessed door. The
upper storey must have been well lit having three windows to
the front as well as along both sides. A description of the cellar, fortunately, has been provided by the prisoners who were jailed there. The cellar was "about 12'x14', 9 feet deep, no floor except the ground...it was logged in, the door nailed down and secured by stones and timber" (as cited in Payment 1977: 41).

Although the store did sustain damage during the Metis/Militia engagements, it fared better than many other buildings in the village (Payment 1977: 41). Quickly making the necessary repairs and restocking his supplies, Letendre had the store back in operation by 1886. He continued to operate his store until ca. 1897 to 1900 and, with the sale of his residence in 1895, converted the upper storey into living accommodations (Payment 1977: 89). Shortly before his death in 1901, the store was turned over to the Grant brothers of Duck Lake. In turn, they maintained the business until ca. 1915. In 1915, Joseph Branconnier acquired the property and also continued the commercial operation until the building was razed by fire in 1922 or 1923.

Historic photographs of the store provide few details on structures or activities behind the building proper. They do show, however, that by 1915 an annex had been added to the western side (Fig. 21) and a small shed had been attached to the southeast corner.

In 1885 a log structure occupied by Phillipe Garnot was located immediately to the west of Letendre's store. This building apparently suffered extensive damage during the Batoche campaign and may have been torn down after the battle (Payment 1980: pers. comm.). Whatever the case, a flat roofed structure appears in roughly the same locality in an 1886 photograph (Payment 1977: Fig. 33) and in 1891 a gabled roof building is noted in the same position (Fig. 22). Rather than three separate structures it is also possible that we are dealing with the evolution of a single building. Such an interpretation
Figure 21. Letendre's Store, circa 1915 (Courtesy of the Saskatchewan Archives Board).
Figure 22. General view of Batoche Village 1891. (Courtesy of the Acker Collection, Manitoba Archives).
is partially supported by the seemingly identical size and location of the structures. By 1915, however, a rather low lying gable roofed structure is present (Fig. 21). This building may relate to the presently standing foundations of an ice house, a feature directly west of the archaeological remains of the store.

Excavation Methodology and Objectives
As with the Letendre residence, the excavation of the store was considered a priority because of both its historical significance in the Northwest Insurrection and its major interpretive position in the Batoche Village complex. In addition, the store had a continued usage from 1885 up to 1922 under three different proprietors. Thus, it offered a microscopic research view of more general changes in the evolution of the village itself. Again, development related problems regarding construction mode, associated outbuildings, activity area locations and the like could also be addressed.

The perimeters of the area incorporated within the store socioeconomic complex were defined on the basis of known archaeological features and the Batoche Village master grid (Fig. 23). The southern boundary (line 4715N) runs parallel to the standing storefront foundation remains along a line approximately located in the centre of the "Batoche Avenue" segment of the Carlton Trail. The western edge (line 4080E) lies between the store and adjacent Boyer property. It is immediately west of the earlier described ice house foundations. The eastern perimeter (line 4130E) runs through the crest of the hill at the beginning point of "Batoche Ave." while the northern border was simply defined as grid line 4800N. This area, 50 x 85 m in size, was expected to encompass a majority of the features, outbuildings and activity areas which, historically, were associated with the store.
Figure 23. Letendre Store Socio-economic Complex boundaries and excavation areas (Drawing by K. Graham-Stevenson).
The excavation program once again was divided into two relatively independent operations. Excluding a block area surrounding the remaining store foundations, a trench testing program was conducted throughout the entire area defined within the socioeconomic complex boundaries. Upon completion of this operation, concentrated excavation of the store structural area and selected other features was undertaken. The results of this work are presently described.

Letendre Store Complex Testing Program

Because the available collection of historic photographs fails to depict the area behind the store, little is known of its former use and whether or not associated outbuildings were present. As well, since it seemed reasonable that Letendre's earlier store was situated on lot 47 (Payment 1977: 21) and previous test excavations and survey on this lot had failed to locate the building, the possibility that it was located immediately behind the 1885 structure was also a consideration. These factors and their potential role in the interpretability of the site fostered the extensive testing program of the store socioeconomic complex.

The testing program excluded a block area (15 x 28 m) encompassing the standing foundation remains of the store and ice house as well as adjacent areas encompassing depressions to the east and west of the store foundations. Initially, it consisted of the excavation of 11 north/south trenches 25 cm in width with lengths of either 65 or 80 m. Trenches were spaced at random east/west intervals as chosen from a table of random numbers (Fig. 23). The rationale for the random interval strategy, as opposed to regular intervals, was based on the possible spacing of rear buildings if any did exist. Specifically, it was felt that should outbuildings or activity areas be regularly spaced, as was more or less the case for
structures along "Batoche Avenue", then regularly spaced transects might be out of phase and, consequently, miss whatever features could be present.

Although the ideal sampling fraction was considered to be 10 percent, by virtue of manpower limitations only a 5.3 percent sample proved feasible. The trench width of 25 cm is somewhat restrictive in terms of areal exposure for feature interpretation. However, it allows for a much greater spatial coverage within the defined sampling fraction than do transects with greater widths. Trenches were excavated by shovel to the base of the plow zone in 1 m long lots. All excavated matrices were screened through $\frac{1}{4}$ inch mesh.

Following the trench excavation program and coordinate with the initial excavations of the store, features encountered in the sampling program were assessed and a number were chosen for more extensive exposure. The sampling program along with the selected feature excavation allows for at least a preliminary assessment of land use in areas to the rear of and adjacent to the store. It is possible that such an interpretation will be modified on completion of the material culture analyses.

A great deal of care was undertaken during the testing program to identify and characterize soil matrices. In general terms, soils in the tested area are typically orthic black chernozems. As described by Ives (1978: 5) they have

...thick Ah (humic) or Ap horizons (plowzone), followed by mesic B horizons (Bm). At this location, carbonates are being leached out of the upper portion of the solum and these accumulate in the upper portion of the C horizon (Cca)....Because carbonates are present in the C horizon, positive reaction to acid testing is not unquestionable proof of lime bearing building materials.

The excavation of test trenches removed either the Ah or Ap horizons to expose features in the B and C horizons. Where it occurred, the Ap or plow zone stratum proved to be between 11 to 15 cm thick.
The testing program revealed few major features any distance to the rear of the store. Possible exceptions to this statement, as later discussed, are a charcoal capped pit feature and a number of post holes. More directly behind the store a large number of post holes and a rubble filled depression were encountered. In addition, to the east of the store a feature dominated by a wood chip mixed matrix was exposed.

The failure to locate either outbuildings or Batoche's earlier store suggests a limited use for the rear properties. Artifact densities within each of the transects tended to substantially increase moving from north to south. Several dense concentrations at varying intervals and in the approximate vicinity of post hole clusters may possibly be explained as fence line accumulations. Although a wide variety of materials was uncovered, the presence of horse shoe nails and forge slag, manure inclusions in the excavated matrices and presumed fence lines as interpreted from the large number of post holes seems to indicate the area was employed predominantly for animal husbandry. The forge slag also suggests limited other activities.

Specific features selected for more exact excavation are now reviewed.

Pit Feature (21N905B2400/21N001X2500)
Located approximately 57 m north of and slightly west of the rear facade of the store, this feature initially showed up as an intense concentration of charcoal. More widespread excavation revealed a pit feature ca. 60 cm deep and 1 x 1.25 m in size (Fig. 24). The upper stratum of this pit was primarily composed of charcoal while layers of soil and manure lay below. Artifacts from the pit fill included a number of bottle glass fragments, a wire nail, a machine cut nail and an abundance of faunal remains possibly from a single animal. South of the
Figure 24. Post hole and pit features to the rear of Letendre's Store. (Drawing by K. Graham-Stevenson).
A concentration of small posts and post holes was found as also was a smaller depression again capped in charcoal. An interpretation for the pit feature is rather difficult to provide. The charcoal concentration in the upper stratum might suggest a smudge pit which had been surrounded by stakes. However, the depth of the pit seems anomalous for such a use as does the nature of the fill. An alternative explanation might include the disposal of a diseased animal although the faunal remains do not appear to be complete enough for a total individual. The presence of the post holes and, in particular, two larger examples adjacent to and south of the feature might also suggest this area to have been in proximity to a gate.

Post Holes and Fence Lines
During the test excavation program and later during the excavation of selected features a large number of post holes was exposed. These varied considerably in size ranging from 4 to 17 cm in diameter. Because the sampling design is ill-suited to exposure of complete fence lines, there appears to be a lack of patterning to the isolated post hole distribution. However, three clusters are notable; two in the northern rear lot and the other immediately behind the store (Fig. 24). The northern concentration, at least in part, may be related to the northern and eastern fence lines although it is obvious that differing fencing episodes would be present.

Prior to the initiation of the area sampling scheme, a linear running ridge 9 to 10 m north of and parallel to the rear of the store was noted. Although speculative, it is thought that this ridge is a direct result of material accumulation along a fenceline. Extensive testing of this feature was not undertaken and only a single post hole was found in direct association. However, a Symap density distribution map of fence staples in the testing area shows the densest concentrations along the ridge line (Fig. 25). This is taken to be a measure of support for the fenceline interpretation.
Figure 25. Interpolated SYMAP density distribution of fence staples.
Rubble Filled Depression (21N001X2400/21N905B2500)
Initially located during the testing operation, this feature first appeared as a plaster concentration immediately to the rear of the store foundations (Fig. 24). More complete exposure revealed a roughly ovoid depression approximately 2 x 2.6 m across and 85 to 90 cm deep. The fill within this depression included an upper stratum of mixed soils underlain first by a thick rubble/plaster layer and subsequently a gravel/sand matrix on top of wood (shingles, bark) remains. Below the wood was a mottled A to C soils layer (Fig. 26).

In terms of cultural materials within this pit, the upper soil stratum had a variety of preserved organic remains (seeds, egg shells) as well as a quantity of rusting cans. The rubble layer assemblage was dominated by building hardware and window glass while the sand gravel zone had an abundance of butchered rib remains. Preliminary impression of these materials suggests a post 1885 date.

As with the previously described pit feature, it is difficult to provide an exact functional interpretation for the depression. Its shallowness precludes a privy or well identification and its general size seems insufficient for a cellar. Since the fill appears to be predominantly rubble from the store, a refuse pit is also ruled out. The remaining possible alternatives include either a rifle pit from the Batoche military engagement or a small root cellar.

In addition to the depression feature, excavation also exposed a variety of post holes (Fig. 24). Although it is not totally excluded, the absence of an interpretable pattern suggests they are most likely representative of changing fencelines at differing temporal intervals. As such, they would have no direct association with the rubble filled pit.
Figure 26. Pit Feature 21N1X2400 - location and profile.
Wood Chip Concentration (21N904B3600/21N904X3600)
The extreme eastern test trenches crosscut an area on the southern ends having relatively abundant quantities of wood chips and bark fragments (Fig. 24). Further excavation of an 8 x 8 m block shows no basic pattern to the feature but, rather, interspersed concentrations of wood remains. A mixed assemblage of artifacts, largely refuse scatter, does not appear to have a direct association with the activities responsible for the wood remains. An 1891 photograph of Batoche (Fig. 22) shows a wood pile located east of the store and there is little doubt that the remains of this feature are a direct result.

Letendre Store Structural Excavation and Associated Features
The 1976 Batoche archaeological program had undertaken limited test excavations at the site of Letendre's store. As described by Donahue, site features evident in 1976 included

...a cut fieldstone and mortar foundation surrounding a cellar depression. West of this foundation is a raised earthen rectangle; to the east of this is a second sizeable depression....(In P.: 15).

The standing foundation remains were assumed to have been those beneath the main store while the raised feature to the west was interpreted as the substructural area of an attached annex appearing in a ca. 1915 historic photograph (Fig. 21). These interpretations formed a basis for the planning of the 1978 excavation strategy. Unfortunately, as will be discussed, they proved to be incorrect thus minimizing work on the 1885 period store.

Excavation of the store structural area proceeded in several stages of which a number were taking place concurrently (Fig. 27). Included here was a large scale exposure of the areas surrounding the structural features; a trench excavation in the front of the store crosscutting the Carlton
Figure 27. Letendre Store excavation area. (Drawing by K. Graham-Stevenson).
Trail; an exploratory trench excavation through each of the features flanking the foundation remains and a more detailed excavation of features within the defined structural perimeters. Prior to reviewing the specific results of this work, a general outline of the most substantive conclusions on structural evolution is presented for clarification.

As has been noted, prior to the 1978 field season the standing foundation remains were assumed to have been those of the 1885 period store. Excavation of these remains and a reassessment of the historic photograph collection shows this to have been only partially the case. Specifically, the east wall of the extant foundations is the former west wall of the store while the additional remains are those of the west annex noted in the 1915 photograph. The depression east of the standing foundations, therefore, is the cellar of the main store. Although detailed description is left for later discussion, these interpretations have been based on the following lines of evidence (Ives 1978: 24).

1) The south, north and west walls of the standing foundation are approximately half the thickness of that on the east. In addition they are more crudely constructed of river cobbles and slope irregularly from the top. The east wall, on the other hand, is uniformly made of flat limestone slabs and has been faced with mortar on the interior (west) face. Both in terms of material and facing, this foundation segment is similar to those of the main foundations of Letendre's residence, a structure also built by Gareau.

2) Neither the south nor north walls are joined to the east wall. In the south they merely abut with an overlap of three large stones suggesting a parallel running foundation. To the north, the corner has completely broken away.

3) Excavation of the east depression revealed a cribbed cellar of the approximate size described by the 1885 prisoners. The cellar feature within the foundations is considerably smaller and lacks a log cribbing. Artifacts recovered from this cellar also seem indicative of a post 1900 period.
4) Within the east depression, a large portion of the rubble fill was foundation segments of a nature comparable to that of the standing east wall. This seems to suggest that some earlier foundation had been pushed into the depression after the 1922 fire.

5) A close inspection of the 1915 store photograph (Fig. 21) shows the annex to have also had a stone foundation which, in width, appears to approximate that of the standing remains.

With the preceding conclusions having been outlined, it is now possible to review the excavation results. For descriptive purposes each of the main features, the western raised rectangle, the central foundation remains and the east depression, are treated independently. Associated features to the rear and front of the store are also examined.

Standing Foundation Remains (21N1B)
Because the foundation remains were originally believed to have been the store foundation, a greater amount of time and manpower were expended on their excavation than was the case for the flanking features. The foundations themselves outlined an area of ca. 9.8 x 3.8 m and encompassed an interior depression having a surface depth of approximately 65 cm from the foundation bottom. The foundation was from four to five courses in height (ca. 45 cm) and at the top measured 30 cm wide along the north, south and west walls and 50 cm wide along the east wall. Notable construction and material differences between the east and other walls has already been noted.

The excavation strategy (Fig. 27) first concentrated on a 1 m wide trench running the full length of the structure. This would provide the necessary information on stratigraphy for further excavations. Having completed this trench, the entire southeast quadrant within the foundation remains was exposed. Finally, a single 1 x 1 m unit was excavated in the northwest corner.
Stratigraphy within the foundations (Fig. 28) was relatively homogeneous in noncellar areas. The upper stratum, roughly 50 cm in thickness, was primarily composed of coarsely mottled fills. Beneath this zone was a burned layer marked by melted glass, corroded nails and some rubble. This stratum rested directly on natural soils (Bm horizon). Cellar stratigraphy was somewhat more complex with several episodes of filling probably being the case. In particular, slumping of the south cellar wall did not allow for its exact definition. This problem was compounded by the fact that the burn layer could not be followed along the cellar slope. It did, however, occur in the bottom of the cellar overlying stained sands which constitute the floor.

The cellar beneath the structure would have been roughly centered in a position ca. 3 m from each of the north and south walls (Fig. 29). In size it appears to have been between 2 to 2.5 m in length with an approximate width in the same range. Cellar depth was 1.8 m below the top of the foundations. No cribbing or other stabilizing features were uncovered although shingles and wood fragments were found in the fill.

In the southeast quadrant excavation, a steep sided circular pit was revealed protruding through the burn layer (Fig. 29). This pit was 70 cm in diameter and 30 cm deep. Included in the pit were several pieces of wood, seed beads, a tin can, window glass and putty. Because the pit would have been located beneath the floor, access would have to have been gained by means of an interior trap door. Beyond its use as a secret storage area, alternative explanations are lacking. The size of the pit rules out its association with a structural support.

East Cellar Depression (21N1A)
Initial testing of the eastern depression consisted of a 1 x 12 m east/west trench. Because its main purpose was
simply to locate the boundaries of the feature, excavation did not proceed to any extended depth but, rather, amounted to little more than a surface stripping. Notable in this trench was a large segment of foundation which in material and construction technique matched the standing foundation of the east wall. It also was apparent that the feature had been infilled both with foundation remains and a variety of other materials. Unfortunately the eastern perimeter of the feature was not clearly demarcated.

The results of the exploratory trench served to support the hypothesis that the eastern depression was, in fact, the original store cellar. With this recognition, a hurried excavation program was mounted to gain at least a minimal perspective on this feature. This first phase consisted of a second east/west trench, 1 x 6 m in size, which was taken to its full depth. Following its completion, an intersecting 1 x 3 m unit was excavated to the south (Fig. 27). This work was supplemented by rear store excavations (21N904B3400) which exposed an area in the approximate location of what would have been the north wall. The major east/west cross section trench did expose a cribbed cellar while the south trench provided information on its southern perimeter.

The stratigraphy of the cellar fill material included four strata (Fig. 28). The upper layer primarily consisted of mixed A and B horizon soils ranging between 20 to 40 cm in thickness. Immediately below this stratum was a 10 to 20 cm thick layer of manure and bark which in turn was underlain by a thick deposit of sand/clay fills. At the cellar bottom was a burn/rubble stratum. Stratigraphy along the edge of the cellar was considerably more complicated as a result of slumping. As described by Ives (1978: 25) large units of natural soil tilted forward and fell inward, creating pockets of pure natural soils. Once sectioned, it was clear that C horizon sands in the slump blocks had laminations that failed to correspond to the horizontally oriented undisturbed
Figure 28. Profile of cellar features (drawing by K. Graham-Stevenson).

1. Upper fill of Ah-Bm soils
2. Organic layer, predominantly manure
3. Dark clay fill
4. Light sandy clay fill
5. C Horizon sand
6. Stump block of C Horizon sand
7. Stump block of C Horizon sand & some Ah & Bm soils
8. Burn and rubble
9. Mottled lens
10. Fill consisting of Ah & Bm soils
11. Rodent disturbance

Main Store Cellar E/W

Annex Cellar N/S
Figure 29. Excavated features, Letendre's Store (Drawing by K. Graham-Stevenson).
laminations closer to the edge. These sloping lines are quite well defined and represent either the cellar or something close to it.

The above noted slumping activity has also created a situation where the cribbing has been pushed forward toward the interior of the cellar.

Although it is difficult to get a totally accurate perspective of the original cellar from the limited excavation which was undertaken, at least a tentative appraisal is possible. From the top of the east wall foundation remains, the cellar depth would have been ca. 2.4 m, a figure quite comparable to that provided in the prisoner's description (8.2 as opposed to 9 feet). The cellar appears to have been approximately 4.3 m in width. This measurement, again, is virtually indistinguishable from that given by the Metis captives (14.1 as opposed to 14 feet). The cellar walls were cribbed with logs approximately 10 to 11 cm in diameter. Although a few structural members were found in the central area of the floor, their appearance is most probably a result of roof fall or cribbing slump as opposed to an actual wooden floor. No direct exterior entrance was located and it is probable that access was gained through the interior. In the cellar burn layer a large quantity of carbonized potatoes was recovered, seemingly indicative of a cold storage function for this feature.

Excavation in the area which would have included the north wall of the store failed to find any direct in situ segments of foundations. However, two large sections, both out of context, were exposed (Fig. 29). On the south wall, an additional foundation segment was found lying on its side.

In terms of the post fire events which led to the destruction of the original store foundations, it appears that the foundations along with other fill materials were simply pushed inward into the cellar. Why this should have occurred only for the eastern foundations while others were left standing can be but a matter of speculation. Possibly the depth
of the cellar along with its stabilized walls left a rather hazardous pit for children living in the area. It may also have been the intention to completely level the site for agricultural purposes but for some unknown reason the work was never completed.

Raised Feature West of the Standing Foundations (21N1C)
The feature west of the standing foundation remains is not evident in any available historic photograph and thus remains somewhat of a mystery. Because the soil development over this feature was rather poor, it was possible to quickly excavate the entire interior area (Fig. 27). In addition, there appeared to be no discernible stratigraphy beyond natural soil horizons and a clay banking against the standing foundation.

Following an east/west exploratory trench through the interior (21N904B3000) and the subsequent total feature exposure, it was apparent that some form of structure had at one time been attached to the west annex. Both the north and south perimeters of the feature were marked with dry stone footing supports or foundations which abutted the west wall of the annex (Fig. 29). In addition, a 20 cm wide wooden structural member was found lying to the inside of the south wall while a 15 cm wide piece of timber lay to the outside of the northern foundation. It is possible that these represent displaced sills. The west wall of the feature, surprisingly, was not marked by a similar line of stones. Rather, there appear to be footing stones placed at two intervals along this line. Possible sill remnants were also uncovered along the west wall.

The interior of the structure lacked any notable features indicative of a specific function. In fact, the natural soil floor shows little use whatsoever. Against the annex wall,
a clay banking had been applied suggesting the structure had been built some time after the annex itself. This banking has its greatest width in the north interior and diminished towards the south.

At present, it is somewhat difficult to provide a reliable interpretation of the feature. It would seem that some time after the annex had been constructed, a second appendage was added. Whether this was a simple lean-to or a more permanent structure is open for question. The lack of a specifically defined west wall, however, suggests the former. Having a dirt floor, it may have been used as an equipment shed or served any number of similar functions. Although charcoal scatter was present, the lack of a heavy burn layer could indicate that the structure was torn down prior to the store fire.

Features to the Front and Rear of the Store
Widespread excavation surrounding the store structural remains was able to expose a variety of features both to the front and rear. In addition, a test trench was excavated out from the store front facade crosscutting the Carlton Trail (Fig. 27).

The single most dominant feature immediately to the rear of the store is a trough-like depression oriented along a northwest axis (Fig. 29). Having roughly parallel sides, this depression intersects and appears to run below the standing foundation remains of the annex north wall. Although the northwestern boundary is in question, the results of limited test excavation and soil coring suggest it becomes rather shallow and eventually disappears as it moves toward the back lot. Ranging between 25 and 40 cm in depth and having a 1.5 to 2 m width, it would seem that the soil has been scooped out and, eventually, was filled in with a mottled soil mixture (Fig. 30).
Figure 30. Possible Zareba, location and profile. (Drawing by K. Graham-Stevenson).
It is difficult to provide an interpretation for this depression. Because it appears to run below the foundations and traces of it were evident in the interior of the standing remains, there seems little doubt that it predates the west annex. It is possible that it might be the partial remnants of Middleton's second zareba which, apparently, was constructed around a portion of the commercial row (see Donahue et al., this volume). However, it would be oriented off axis when compared to the zareba remnant to the rear of Fisher's store.

As with the just described depression there can be no absolute interpretations for the remaining rear store features. Two small pits, one circular and the other rectangular, were exposed directly behind the line of stones marking the westernmost structure or lean-to (Fig. 29). As well, a 3 to 4 cm thick circular concentration of plaster was found to the side of the proposed zareba remnant and behind the store annex. Because of its diameter (50 cm) and thickness it may simply represent the dumping or cleaning of a plaster barrel used in store construction or renovations. Finally, aside from a small number of post holes, the only other major feature was a large disturbed area of organic fill which was found to the rear and northeast corner of the original store. This disturbance, undoubtedly, is related to the destruction of the store foundation after the 1922 fire.

Major features to the front of the store are absent. However, a variety of post holes, on-edge wood fragments and wood traces were present. While several of these appear in the approximate location of where stair structural supports should be, there does not seem to be a consistent or overall pattern. Individual pieces are not described here; rather, features are plotted in relation to door locations along the front facade (Fig. 31).

The Carlton Trail test excavation consisted of a 1 x 7 m trench extending beyond the defined structural area and was
Figure 31. Excavated features to the front of Letendre's Store (Drawing by K. Graham-Stevenson).
so oriented as to crosscut the trail feature. Across the top of the trench was a 10 to 25 cm stratum of dark plow zone materials which was underlain by a mottled soils layer. The latter was terminated at the natural Bm soil horizon. The mottled zone appeared to have undulating layers, as might be expected of rut marks, beginning at a point ca. 5 m out from the storefront and extending for another 5 m. This undulating stratigraphy is assumed to be a remnant of the Carlton Trail.

Letendre Store Complex Summary
Excavation of the Letendre store complex, as at other sites with concentrated excavation programs, was basically conducted in two parts. The first consisted of a large scale sampling program of areas to the rear of the store while the second focused on the structural area of the store itself. The sampling scheme used a random transect excavation methodology with 11 north/south oriented trenches ranging in length from 65 to 80 m. This accounted for a sampling fraction in excess of five percent.

The testing program failed to uncover any major structures in the rear lot of the store and it seems improbable that any did exist. A large number of post holes, manure concentrations and, possibly, a smudge pit all seem indicative of a fenced area for animal husbandry. Directly behind the store, oriented along a northwest axis, was a shallow trough-like feature which may be a remnant of Middleton's 1885 village zareba. As well, a rubble filled depression also behind the store is tentatively interpreted as either a Metis rifle pit or small root cellar while a wood chip concentration to the east identifies the location of a wood pile.

The excavation of the store structural area proved to be more complex than had been anticipated at the beginning of the field season. Prior to investigation, the structural area was
marked by a rectangular dry stone foundation with a depression on the eastern flank and a raised earthen rectangle to the west. On the assumption that the foundation remains belonged to that of the original store, the excavation strategy was first oriented to maximum concentration on this feature. However, subsequent test excavation results combined with evidence from the standing foundation seemed to indicate that the east depression was, in fact, the store cellar and the central feature was related to a later annex evident in a 1915 photograph. Intersecting trenches through the east depression proved this to be the case by the exposure of a cribbed cellar which, both in size and form, matched the prisoners' descriptions. Large segments of foundation were also found in the fill suggesting that the original store foundations had been destroyed and pushed into the open basement. The westernmost feature is considered somewhat problematical since historic photographs of the store have failed to record its existence. However, the surviving structural evidence does indicate that a second appendage, albeit with an earth floor, had been attached some time after the annex had been completed. It also appears that this structure had been dismantled prior to the 1922 fire.
Batoche Military Features - Test Excavation Program

Aside from the general resource inventory program and the major excavation projects in the Village of Batoche, a final objective for the 1978 field season was to investigate the known military features associated with the 1885 engagement. In particular, test excavation programs were conducted at the Canadian Forces zareba on the Caron farm as well as on documented rifle pits of both the Canadian and Metis troops. The latter was oriented towards an understanding of variability in construction techniques.

**Middleton's Zareba**

Realizing that the capture of Batoche would require more than a brief engagement, General Middleton ordered the establishment of a defensive zareba. This feature would provide a protective stronghold for his troops and allow the supply columns to advance to the edge of the battle. The zareba was outlined with a series of earthworks possibly four to five feet high which encompassed an irregular polysided area of ca. four acres (Letourneau 1980). Within the earthworks were several additional defensive lines of wagons and areas for a hospital, troop quarters and corral (see Letourneau 1980 for a complete description).

The standing zareba remnants consist of a series of intermittent low earth mounds (Figure 22). Only three sides of the former feature are visible with one of those, the eastern flank, having a multiple row of earthworks. Test excavations
in 1976 unsuccessfully attempted to locate subsurface features for the fourth (south) side (Donahue In P.). Although it is possible that this area of the zareba may have been solely enclosed with wagons or the like, recent historic research by Letourneau (1980) suggests this wall was much farther to the south than anticipated in the testing operation. If this proves to be the case, then substantial segments of the east and west perimeters are also missing. Here it is important to note that the standing remains closely border the north, east and west fencelines of one of Caron’s fields. As such, they may not have been an obstacle for cultivation. The south flank, however, would have crosscut the properties to the rear of the Caron home and may have been levelled for agricultural purposes.

The 1978 testing program at the zareba focussed on two specific objectives. The first of these was a general test excavation of areas within its perimeters in search of features or activity areas related to the 1885 Canadian forces occupation. The second goal was to cross section the eastern and western mounds to obtain feature profiles and collect data on construction techniques.

To ensure an adequate spatial distribution of test pits within the zareba enclosure, a systematic sampling strategy was employed. To cite Nicholson (1978: 6), pits were oriented in the following way.

The transit was set up over survey peg 3650N/5550E and oriented true north. Pegs were shot in at 20 m intervals inside the perimeter trenches. The transit was rotated 45 degrees and the procedure repeated until a 360 degree circle was encompassed.

Twenty-two test pits (1 x 1 m) were excavated which have a fairly widespread spatial distribution (Fig. 32). If anything, this testing program has indicated that extensive occupation debris from the 1885 employment is now absent. No subsurface features were encountered and only a minute sample of material culture remains was recovered. Within the latter was a Sneider rifle ram rod as well as
Figure 32. Zareba remains and test excavation units. Darkened areas are test pits (Drawing by K. Graham-Stevenson).
limited evidence for smithy activities. As a followup to the test excavation program, it would be useful to undertake either a magnetometer or metal detector survey of this area. The results of such a project could be extremely useful in isolating either subsurface features or existent artifact concentrations.

To crosscut the eastern and western wall of the earthworks, 1 m wide trenches were excavated through the standing remains (Fig. 32). Excavation of the western flank intersected a point near the southern end. Here the earthworks consist of a single earthen mound of ca. 3.5 m width. The excavated trench, oriented east to west, was 7 m long. The profile of the sectioned feature shows that earth from the current interior was thrown on top of the former surface level (A horizon) to construct the zareba wall (Fig. 33). This wall, as it presently appears, was built to a height of 65 to 70 cm. Limited material culture remains were recovered along the sloping edges of the earthworks. At least some of these items may be associated with Middleton's occupation.

The eastern flank of the zareba is notable for the presence of a multiple line of earthworks which have an approximate width of 11 to 12 m. The significance of this feature is yet to be determined. Its general location would have been in the vicinity of the camp hospital and it may owe its form to extra protection for that quarter. The eastern earthworks were sectioned with a 14 m long trench which extended across a number of mounds and depressions (Fig. 32). Again, the profile shows that at least the innermost mound was constructed by scooping earth from the interior onto the former surface level (Fig. 34). During the excavation, two features of note were encountered. On top of the original soil surface beneath the outside zareba wall, several poles were encountered. These appear to have served as fill. On the inside slope of the interior mound a possible hearth was present as indicated by a charcoal concentration. Associated with this feature were faunal remains, wood fragments and a cartridge casing.
Figure 33. Profile of test trench on zareba west wall (Drawing by K. Graham-Stevenson).
Figure 34. Profile of test trench on zareba east wall (Drawing by K. Graham-Stevenson).
In addition to the major crosssection trenches, two units (1 x 3 m) were excavated in an area where, on the basis of surface indications, an inner partition was thought to be present. These excavations proved to be inconclusive.

Rifle Pit Test Excavations
In excess of 300 individual Metis and Canadian forces rifle pits have been recorded during the three years of archaeological survey work at Batoche. These pits generally occur in clustered groupings with up to 10 or so features present. Following the initial 1976 field season, attempts were made to analyse rifle pit spatial distributions within the park in search of interpretive data on associated battle strategies (Putt In P.). This effort was somewhat limited by the almost total destruction through cultivation of military features surrounding the Batoche Village proper. Problems aside, Putt (In P.:15) came to the tentative conclusion that rifle pits tended to cluster near former trails, were located on or near sloping terrain and were also situated on or near a grass/forest interface. He also made note of the dense concentration of defensive features in the vicinity of the west side ferry crossing. Preliminary test excavation of a number of pits showed them to be relatively sterile of cultural materials.

The 1978 program was to be basically a followup to Putt's work. Four possible rifle pits, two associated with the Metis and two identified as Canadian Forces, were singled out for test excavation. The major objective of this exercise was to look for any notable variation in construction styles between the two groups.

The Canadian Forces rifle pits were part of a cluster (Fig. 35) located on an upper terrace projection overlooking the South Saskatchewan River and slightly south of the zareba. They, most likely, were part of an outlying perimeter of defenses for the zareba. Both rifle pits chosen for excavation
were cross sectioned with a trench such that a profile could be obtained (Fig. 35). The result of this work illustrates that the original pits were shallow (ca. 40 cm) and suitable for protection only if the individual was in a prone or kneeling position. Both pits were similar in size with approximate dimensions of 2.5 x 0.75 m. A number of cartridge shells were recovered indicative of at least minimal action at this site.

The Metis pits chosen for examination were situated south of the west village area and likely guarded its approach. Again, these features were part of a large cluster. One pit appeared to be unique in terms of its large size and also by the presence of a sloping earth ramp into the bottom. Pit excavation suggests this depression was not a military associated feature but, rather, a seepage well. The second pit, however, is most definitely related to the Metis defenses. Originally, it appears to have been circular with diameters of 1.5 m at the top and 1 m at the bottom. The original depth of 1.5 m suggests it was suitable for a standing individual. This pattern was also noted by Putt (In P.).

Summary
Test excavation of the Canadian Forces rifle pits and zareba as well as two Metis rifle pits was carried out by the survey crew. Limited remains were found inside the zareba perimeters and an interpretation of former activity areas or features could not be made. Cross sectioning of the zareba eastern and western flanks provided limited information on construction techniques and dimension. The rifle pit excavations show some variation between those of the Metis and their opponents. Whereas the Metis pits were deep enough for standing marksmen, the Canadian features were shallow and offered limited protection.
Figure 35. Canadian Forces rifle pit cluster and cross profile of one pit (Drawing by K. Graham-Stevenson).
Conclusions

The preceding report is a summary description of archaeological field research of Batoche National Historic Park in 1978. The initial section concentrates on activities of the Batoche survey crew including a subsurface sampling program in areas west of the South Saskatchewan River, the surface collection of a large prehistoric site near the Church and rectory and a preliminary evaluation of archaeological resources at the Fish Creek Battle site. Subsequent chapters concentrate on excavation programs at the Letendre residential socioeconomic complex, Letendre store socioeconomic complex and selected features related to the 1885 military engagement at Batoche.

The 1978 field season was the last for archaeological research at Batoche until a comprehensive management plan is drafted for site development. The vast majority of historic archaeological resources within the park has now been recorded and extensive excavation has been undertaken at a number of sites. The three years of fieldwork have provided a voluminous data set for analysis and interpretation. A completion of this analysis will lead toward a major report on the recovered cultural materials and an interpretive synthesis of the research project. It is hoped that such an undertaking will be a contribution both to site interpretive development and the discipline of historic archaeology.
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