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End of 1981 and 1982 Seasons: York Factory National Historic Site

Gary Adams

Archaeology, Prairie Region, Parks Canada, Winnipeg

The fourth year of work at York Factory, 1981, was of a decidedly different complexion than that of previous years. It was intended that a concerted effort would be put into excavating one major structure rather than following the haphazard program of the past. For that reason, the testing and minor excavations were kept to a minimum. Even at that, almost one-third of the season was spent testing and conducting small excavations.

In terms of excavation objectives, three projects were designated for the field season. The first was to take out a section of the ice house wall and finish the interior of that structure to determine its structural technology. The second was to locate the 1789-1830s main structure. The third was to locate and excavate one of the major structures. Additionally, two other areas, the native encampment and the garden, were examined as a result of extenuating circumstances.

The 1982 season marked the last year of field work in the current York Factory research program. As such, excavations would be limited to an attempt to close some information gaps that had resulted from previous excavation biases. Though the entire list of proposed projects was not completed, the following goals were at least partially achieved. The original site plan for York Factory IIIB had a central depot flanked both upstream and downstream by rows of warehouses. Since the Inland Cargo House had been partially excavated in 1981, the first objective of the 1982 season was to excavate an upstream warehouse. The structure closest to the river, the East Fur Store, was chosen and partially excavated. The second project was to locate the centre of activity for the boat building industry that occurred just outside the northeast corner of the



palisade. This, too, was accomplished. Finally, a portion of the long neglected riverbank test operation was reinstated with a series of test units inserted in the area directly in front of the depot.

These three major projects consumed the greater part of the summer but several minor goals were also accomplished. A preliminary survey was conducted in the south village area to locate structures. The graveyard was fully mapped and all extant graves were given a preliminary inventory. The depot interior was intensively photographed and all the graffiti was recorded. Finally, some steps were taken to insure that certain measures would be followed to monitor the heritage resources over the next few years.

1981

The Ice House Excavations

The first objective was to finish the excavations at the ice house by removing the soils from the remaining interior section and by cutting a couple of trenches through the 5 m thick walls. This necessitated the removal of the soil from last year's pits (10.5 m²) and the exposure of an additional 21.5 m². The process was hindered by a constant confrontation with the permafrost but eventually most of the interior was opened, along with two metre wide trenches through the north wall and the west wall entrance passage.

The result of this confirmed much of the structural interpretation from the 1980 season (Adams and Burnip 1981). The structure itself had three major wall constructions. The innermost wall was square timbers with mortise and tenon corners; interior dimensions were 4.9 m north-south by 3.85 m east-west. The floor was built with 16 to 23 cm wide by 5 cm thick planks laying north-south on irregularly spaced joists. These were elevated almost a metre above the ground and the cavity had been filled with a layer of wood chips. In fact, one of the floor supports was the bottom of a very large oak barrel, filled with earth and woodchips (Fig. 1).

The middle wall was of post-on-sill construction and was spaced less than a metre from the inner wall (Fig. 2). It extended down to ground level and created a dead air space between the two walls from the ground to a height of about 1.5 m. Above this, in some areas there appeared to be a roof of longitudinally-placed timbers or logs and the upper section was apparently filled with rocks and earth.

The outer wall was 1.17 m away from the centre wall in the north side. It, too, was of post-on-sill construction that was held in place by spacers

connected to the middle wall. The intervening space was earth filled. Outside this wall, there was at least one layer of wood covering one of the earth embankment phases. It probably extended up to the height of the first floor of the ice house.

The doorway was located on the west wall, extending out from the inner north wall. It was of post-on-sill construction and consisted of a passageway 0.96 m wide and 2.7 m long. The floor was again planked, this time in an east-west orientation. It was slightly elevated over the interior floor so that there was a step at both ends (Fig. 3).

The 1981 Testing Program

The first test was conducted in the form of two trenches, both oriented north-south and both extending out from the central garden feature. The south trench was 7 m long. At the north end a stone-filled ditch (Fig. 4) was uncovered which appeared to be a portion of a east-west oriented trench that served as part of the drainage system for the south perimeter of the central garden. This trench was approximately 1.2 m wide and of undetermined depth. It seemed to run from the back of the gardens to the front palisade area. Located 4.0 m to the south was a single east-west oriented log in a clay-filled footer trench that was judged at that time to be the north wall of the Eastern Fur Store.

The 6 m long trench that began off the north perimeter of the front gardens had a very similar character as its counterpart. Once again there was a stone filled trench although this one was only partially excavated. It was expected that the wall of the "Inland Cargo House" would appear a few metres to the north. Instead, there was a thick clay layer that actually formed a slight mound extending east-west along the north border of the garden. Further investigation through the excavation of an 8 m long trench paralleling the mound revealed that it was up to 20 cm thick and had a base of twigs laid in small bundles at irregular intervals in a north-south orientation. Without further analysis, it can only be speculated that this mound was the result of some form of garden preparation.

The disappointment that the structure was never located caused an 11 m interval to be skipped. The trench was started again, still digging in a north direction. The Inland Cargo House was discovered almost immediately so this testing operation became part of the larger excavation of that structure.

The final trenching operation was undertaken inside the northeastern most room of the depot. Here, a portion of the floor-boards was raised to excavate a 10 m² area. The purpose of this test was to discover traces of the earlier occupation, formerly called "the Old Octagon". This was the last flanker-style fort, originally constructed in 1789. Each year some work had been commenced in an attempt to locate the main building but all previous tries had failed. Recently, however, archival evidence had been discovered that suggested that the building had been torn down in segments beginning in 1831. As each segment was removed, a portion of the existing depot building was erected to replace it.

At first, the archaeological test was again a disappointment. The ground beneath the depot was completely disturbed to a depth of 40 cm with what appeared to be a single fill level. Eventually a set of squared timbers emerged that intersected to form a corner on a 45° angle to the depot. It evolved that this was the former cellar below the men's residence (the NE flanker) of the Old Octagon. It had been rubble filled and proved to be a treasure trove of frozen organic artifacts, including various pieces of cloth, felt, wood and a small cache of peanuts.

Though only three courses of the cellar wall were uncovered, it was enough to verify that remains of the Old Octagon were indeed directly under the current depot structure. Furthermore, it gave a good indication that any further search for portions of the flankers would probably be characterized by very poor returns.

The Inland Cargo House

The major portion of the summer's activities focused on the excavation of the Inland Cargo House, a structure used for the storage of cargo packs destined for the inland posts. It was originally built in 1824 and was one of the longest surviving warehouses at the site as it was still in use in the 1930s. It was described in 1897 as being 75 (22.7 m) by 26 (7.9 m) feet, one-and-a-half storeys tall and of frame construction. It was clap-boarded and lined (Hudson's Bay Co. Archives B.239/e/17,f.2a, York Factory Inspection Report, 1895-1897, F. Matheson).

Excavations were started near the short, east wall and continued to expose 4 m inward from the east wall and a little over one-half of the south wall and adjacent boardwalk. An unusual set of trenches extending east from the northeast corner of the structure was also exposed.

The stratigraphy of this structure was relatively uniform throughout most of the site. The topsoil contained recent artifacts and superimposed a layer or two of mixed peats and clays. These layers seemed to be some form of ground insulation, deposited around the foundation sills which were essentially at ground level. The lowest occupied layer was black peat and very rich in artifacts.

The construction of the building, though not yet fully analysed, revealed yet another in a series of foundation styles and one more attempt to counteract the problems incurred by the permafrost. In this case, two long sills were laid parallel to the walls and set a little less than a metre apart. Sometimes there were sleepers below these sills but not usually. Above these, there appeared to be short lengths of squared timber that were laid across the parallel sills at irregular intervals about a half metre apart. Over these was laid a ladder-like frame that probably acted as the base of the walls per se, creating a structure that actually sat above the ground (Figs. 5 & 6). There were also sill beams from an apparently independent floor system and a few fragments of possible wall lining.

To the immediate south there was considerable structural evidence of a boardwalk that paralleled the long wall of the building. The basic structure appeared to be composed of short cross sills in shallow trenches overlaid by long timbers which would indicate that the actual planks walked on were laid parallel to the line of the walkway.

The artifacts collected from this area were particularly interesting, especially since this was the first time that the field crew had actually encountered an area that reflected the fur trade. The fur trade artifacts tended to concentrate in the lowest occupation level and were probably associated with the earlier (1789-1830) construction phase. They included numerous beads and shot and such items as pocket knives, trade silver, strike-a-lites, jewelry, brass buttons, gun parts and so forth. Analysis of the 1981 season will concentrate on this structure.

The Native Encampment

Two projects were conducted back at the native encampment, first encountered in 1979. The first was the removal of 12 m² to expose a brick fireplace. The fireplace was constructed some time before 1880 and two hypotheses have been formulated to explain its function. The first suggestion was that it was used as a processing station to render whale oil from the

beluga whales that were often hunted in the vicinity. The second hypothesis was that it was constructed especially for the use of the natives encamped nearby, to limit the numbers of fires in the vicinity and reduce the hazard of conflagration.

The fireplace itself still retained the three lowest courses of brick, neatly laid, apparently without mortar. The bricks appeared to have been re-used and a number of them bore the RUFFORD STOURBRIDGE mark. The feature itself was 2.12 m long and 1.9 m wide in a north-south orientation. The internal firebox was 0.82 m by 0.71 m with a 0.63 m long tunnel accessible from the north. The chimney cavity was at the south end and measured 0.31 m by 0.24 m. Samples of the ash and charcoal were collected for analysis.

The second project was to expand the knowledge of the actual camp. A total of 21 m² was excavated stratigraphically, continuing the checkerboard pattern that was initiated in 1980. It was hoped that alignments of post holes and abandoned pegs would emerge to confirm the existence of tent rings at York Factory. Though a number of both pegs and post holes were recovered, along with two hearths, the indisputable evidence of a tent ring was still lacking. However, one arch with an off-centre firepit and some internal features, is being examined as a good example of a probable tent ring. Present interpretations are suggesting that it had internal division of space, interior features and possibly a double cover.

Miscellaneous Projects

Three other small projects were conducted in the field. Marion Parker of Forintek Canada Corp. was on the site for two days. He and the archaeologist toured the depot building noting the existence of several structural timbers that had been re-used in the construction of the building. The purpose was to assess the value of the structure for a dendrochronological analysis. It was decided that enough timbers were available to provide an adequate dendrochronology for the area for a period that would go back at least to the contact period.

Bruce Donaldson, historian for York Factory, was at the site for several days. During that period he and the archaeologist toured the depot a number of times, carefully examining every aspect of the structure. The purpose was to determine, if possible, the structural renovations and functional use of as many of the rooms as possible for a use history. They were very successful in adding considerable new information about the depot.

Walter Zackarchuk from the underwater section of Parks Canada was at the site for a week of survey work. He and his colleagues were looking for evidence of the many shipwrecks that were recorded at or near York Factory. One of the wrecks they encountered was the stern of a boat buried in the mud right at the mouth of Sloop Creek.

1982

The East Fur Store

The first goal of 1982 was to locate this structure and expose as much as possible in a limited time. The test trench dug in 1981 was supposed to contain the north wall of this building but further investigation revealed that it had exposed some other feature, perhaps a garden perimeter. Unfortunately, this misinterpretation led to a false start and some relatively useless excavation was conducted before the situation was rectified. Eventually, a considerable portion of the north wall area was exposed as well as a couple of short sections of the south wall. It was further believed that both the northeast and northwest corners of the building were exposed but that interpretation relies upon some supposition. The historic documents suggested that the fur store was constructed in 1821 to overall dimensions 7.6 m by 24.3 m (25 by 80 feet). The excavations encountered a double foundation system. The innermost foundation was 6.15 m by 20.8 m, by far too small to match the historical evidence. The outermost foundation 7.8 m by 24.5 m would be more appropriate. However, the outer location of the west wall was an interpreted feature lacking substantial remains and there was a third structural member in the east wall. These ambiguities provided a 2 m variation in the interpreted, overall length of the fur warehouse.

The construction itself appeared to be very simple, though the remains were somewhat fragmentary. A set of mud sills were laid around the perimeter of the building and the frame was set on top. There was no evidence of sleepers or additional supports and no remains of the superstructure were recovered. A second set of mud sills were laid about a half metre inside the first set and floor sills were set about 1.5 m apart in a north-south orientation inside the inner sills (Figure 7). All of these foundation parts were probably the lower of a double silled construction. Though analysis has not yet been fully conducted, it is suspected that cross sills were laid over the two walls and a frame sill set over those, over or just inside the outer mud sill. Likewise, the floor would have required a double or triple set of sills and joists.

Two other feature of the East Fur Store will require intensive analysis. First, along the western end of the building there was a pit that was of indefinite length 3.2 m wide and too deep to be completely excavated in a permafrost situation. There was no evidence of cribbing. The purpose of this hole has not yet been determined. Second, the westernmost unit included several drainage trenches and the remains of a wooden drain.

The Boat House Area

Archival research has indicated that the northeast riverbank area, just downstream from the palisade was always a centre of activity for boat building and storage. The first launch house was constructed in that area in 1804-6. Subsequent buildings included an 1840 Boat Builders Shop, a Sail and Buoy Storehouse, a 1916 Boathouse and an 1881 Tar Shed. It was the intention of the 1982 field crew to locate some of these structures as reference points to determine their condition and degree of danger from erosion. To accomplish this, a single trench was excavated in 1 m by 3 m units in the anticipation that it would cut across some of the structures. In fact, the 45 m long trench eventually intersected both the 1840 Boat Builder's Shop and the 1916 Boathouse.

The 1840 Boat Builder's Shop was by far the best preserved, most complete set of foundations ever recovered at York Factory. This very fact led the crew to attempt to expose both the northeast and southeast corners of the building. An additional 24 m² were removed to locate and excavate the desired portions of this building and the foundation of a former firebox and boiler that formed part of a warping box. The actual foundation remains included mud sills and upper sills, portions of the frame for the superstructure and areas of intact flooring (Figure 8). It was the first structure where all the nails had not been removed.

In terms of construction, it appeared that a trench was dug to receive short half timbers which were used as sleepers. These were covered with three layers consisting of log sills, half timbers, square timbers and half timbers again. Over the uppermost layer was laid a square timber frame.

One aspect of this structure necessitates further detailed analysis. All around the other perimeter of the building were massive quantities of nails mixed with ash and what appeared to be burnt ground. This looked suspiciously like the building had burned but that was not the case. There was no evidence of the nail concentrations or the ash inside the structure.

Two other features were found in direct association with the building. One was the aforementioned warping box and the other was a garbage pit dug right through the floorboards of the building sometime in the 1960s or 1970s.

In contrast, the 1916 Boathouse contained practically nothing in the way of structural remains. A few sleepers and the remnants of construction trenches along the walls were all that could be distinguished of this recent building. It was conjectured that its very newness was the cause for the lack of material remains. This structure was still standing in 1970 but it had already been partially dismantled for firewood and salvage. That process continued until not a trace was left.

The Riverbank Test

It was decided that the one area which was vitally important and, as yet, insufficiently tested, was the area directly in front of the depot. It was known that during the 1830 to 1957, period, this area contained the front gate, boardwalks, and drainage ditches and that somewhere in the vicinity, there had been a boat house built in 1790. Therefore, a stratified random sample of the area was initiated. In this instance 420 m² would be intensively sampled (8.3%) by establishing seven lines 30 m long and randomly removing five units of 1 m² from each line. In addition, 7 m² were excavated after the initial test to gain a better understanding of specific features. The first feature was known about before excavation began. A deep trench indicated the former combination of boardwalk and drainage ditch that extended from the front door of the depot through the front gate (Figure 9). The second line from the river set the pace as it exposed both a drainage ditch of very complex construction and the footer trench for the original palisade. The third line contained a boardwalk just inside the palisade that extended from the depot walk, west to the fur houses.

The fourth and fifth lines, as well as some of the subsequent pits revealed a series of poles. These were laid end to end to form lines about a metre apart and may have been part of a ground stabilization program. The sixth line exposed a miraculously well preserved drainage ditch. It may have been affiliated with the gardens which were now just a few metres west of the digs. The last line contained no features.

Although artifact analysis is still pending, one impression of this area was that there was surprisingly little in the way of artifact recovery or artifact diversity. This was possibly one of the most traversed

areas in the post, a location which probably saw half to three quarters of all commodities pass by, yet virtually nothing of that nature was recovered.

Miscellaneous Projects

No field season at York Factory would be complete without undertaking a number of miscellaneous projects that have been missed by others or are required for various reasons. A priority was set on the graveyard in 1982 and a plane table survey was conducted to map every grave for which some kind of surficial evidence remained. A total of 161 gravesites were mapped and 101 enclosures were recorded. The 29 inscriptions that still existed were also recorded (Figure 10).

The depot also took on a priority. The interior structure was intensively photographed as that project had never been done and all the graffiti inscriptions were recorded. This latter project was deemed necessary as the process of defacement still continue despite efforts to halt it. Occasionally these new inscriptions obliterate others. It was also discovered that graffiti was a long standing practise that involved many of York Factory's historical personages and several pieces of relevant archival documentation.

Finally, the foundations for the 1934 church were mapped and recorded as there were indications that those timbers would be removed for re-use within the next year.

Summary

The 1981 field season at York Factory had five basic research projects. The excavation of the ice house walls and entranceway was successful in that it presented an excellent view of the unusual construction techniques used in that building. The excavations at the native encampment were a qualified success. The completely excavated fireplace was both different and in exceptional condition but the primary objective of finding an identifiable tent ring was still missed. The three tests for the Old Octagon and for the warehouses were all completed to the satisfaction of the investigators.

The final project, the warehouse excavation, was a mixture of success and disappointments. There was less exposed than anticipated but the return was richer than was hoped. The lowest level offered a whole new dimension to analysis of site patterning but the architectural model was not as complete as desired. Perhaps the most significant aspect of this was that it offered a realistic view of exactly how much can be excavated under the present circumstances.

The 1982 season included three main research projects. The excavation of the East Fur Store provided an excellent comparison to the Inland Cargo House. The boat area test enabled us to establish firm locations for two structures and relative locations for three others. It also provided some much needed structural information. The final test in front of the depot uncovered several features associated with the later period but failed to locate an early period structure.

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Figure 1. Interior of ice house looking north (photo by J. Hamilton).



Figure 2. Section of north walls of icehouse (photo by J. Hamilton).



Figure 3. Entranceway to icehouse looking east towards interior (photo by J. Hamilton).



Figure 4. Rock filled drainage ditch for central garden (photo by G. Adams).

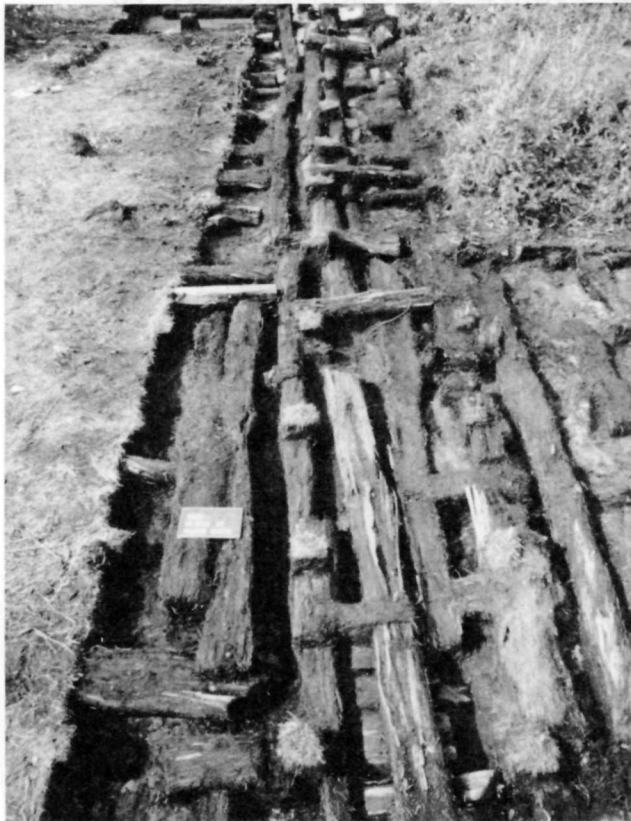


Figure 5. View along south wall of inland cargo house looking west. Structures to left are portions of boardwalk (photo by G. Adams).



Figure 6. View along south wall of inland cargo house east (photo by G. Adams).



Figure 7. East Fur Store excavations looking east from west end of structure (photo by G. Adams).

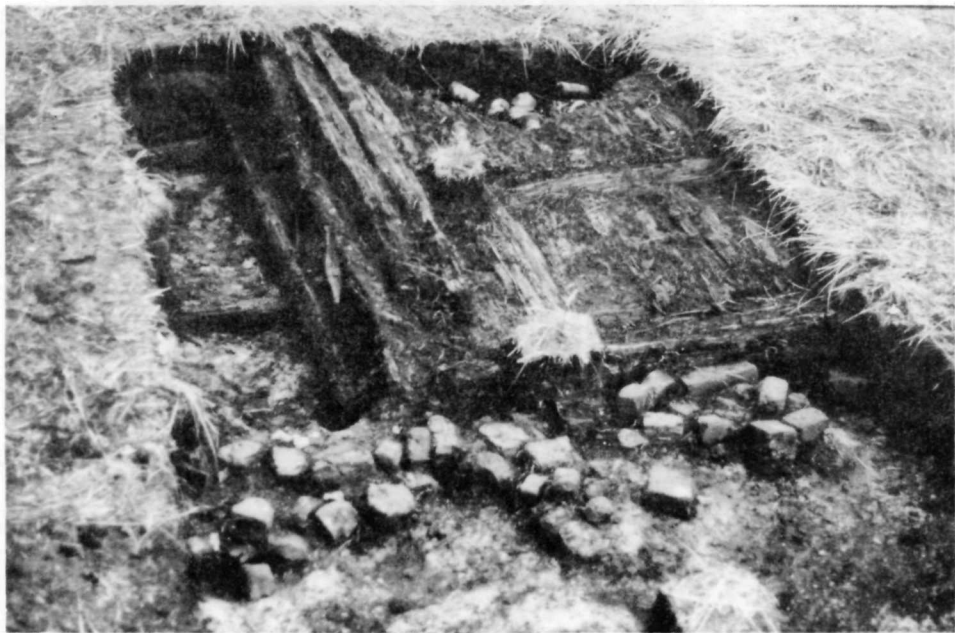


Figure 8. Southeast corner of Boat Builders Shop. Note intrusive garbage pit (Photo by G. Adams).

Figure 7. East Fur
Stone
excavations
looking
east from
east end of
structure
photo by
Adams).



Figure 9. Planview of tongue-in-groove top of drainage ditch extending from the depot to the riverbank.

Figure 8. Southeast corner of Boat Builders Shop.
Note intrusive garbage pit (photo by C.
Adams).

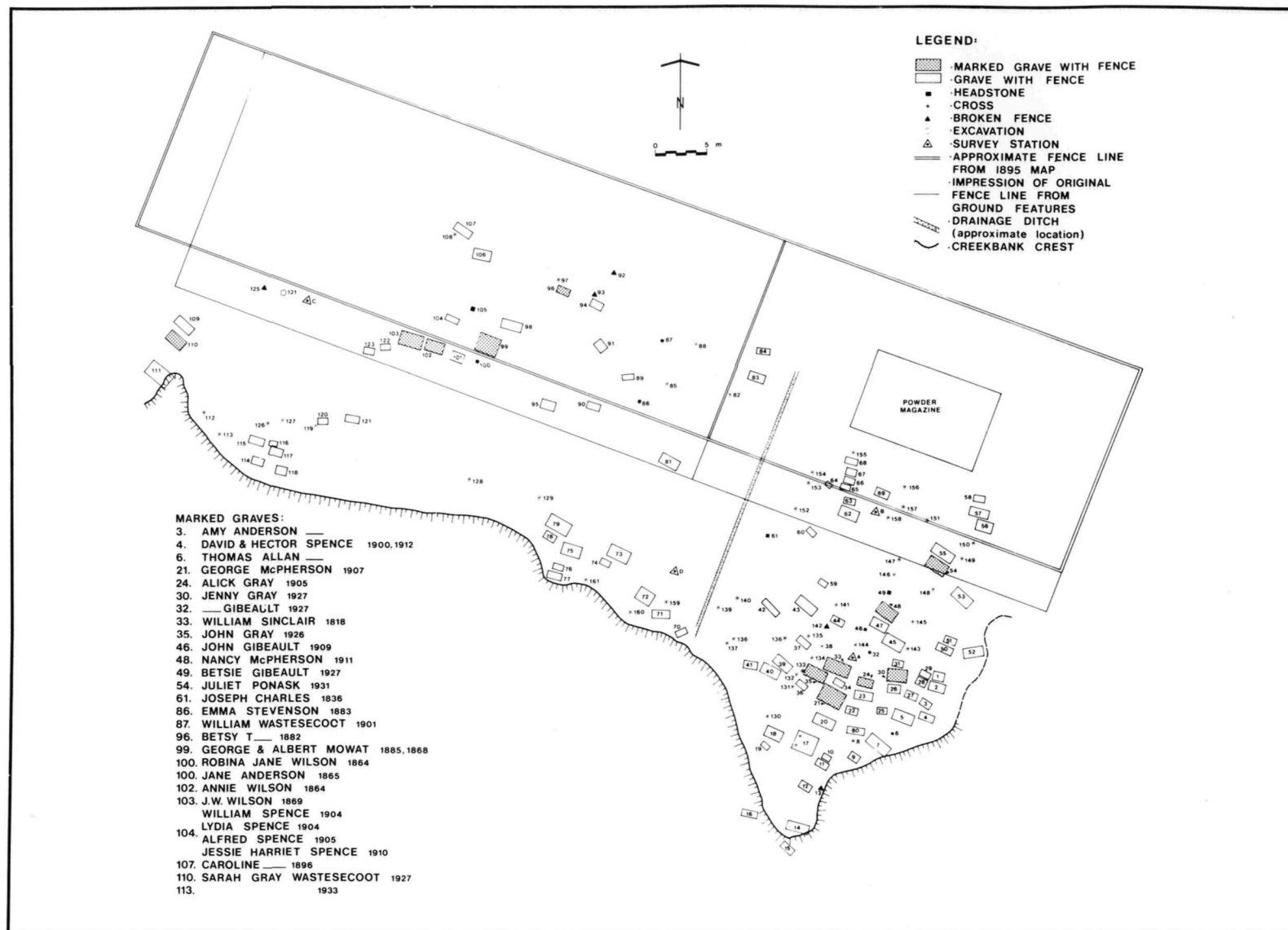


Figure 10: Map of York Factory graveyard. (K. Graham-Stevenson, draftsman.)

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