

Archaeology at Fort Walsh



FORT WALSH FRONTIER POST

Fort Walsh, viewed from the east (in late 1879). Construction of the roof over the bastion (centre right background) at the NW corner of the palisade was not completed at the time the photograph was taken. Credit: Public Archives of Canada, C-17602A.

Frontier Post

Only a handful of Mounties were stationed at Fort Walsh in the 1870s to police an area of roughly 180,000 square miles. Because settlement was sparse in the region, most police work was among the Indians. However, with the arrival of Sitting Bull and 4000 Sioux seeking sanctuary in Saskatchewan after defeating Colonel Custer at the Little Bighorn, force headquarters were transferred to Fort Walsh and personnel doubled. The fort underwent considerable expansion and renovation to accommodate the increase. However, larger did not necessarily mean better; Fort Walsh was a typical frontier post of the period and offered few comforts.

A Gap in the Record

The few surviving photographs, sketches and journals recorded at Fort Walsh reveal little about construction techniques, ground layout or building architecture. Furthermore, conflicting statements exist in the documents and most of the information concentrates on only a few of the buildings. Archaeological investigations were required to round out the historic record. Fort Walsh has become the focus of one of the most intensive research programs undertaken by Environment Canada, Parks, and excavations are now sufficiently complete to present a clear picture of settlement growth at the fort.

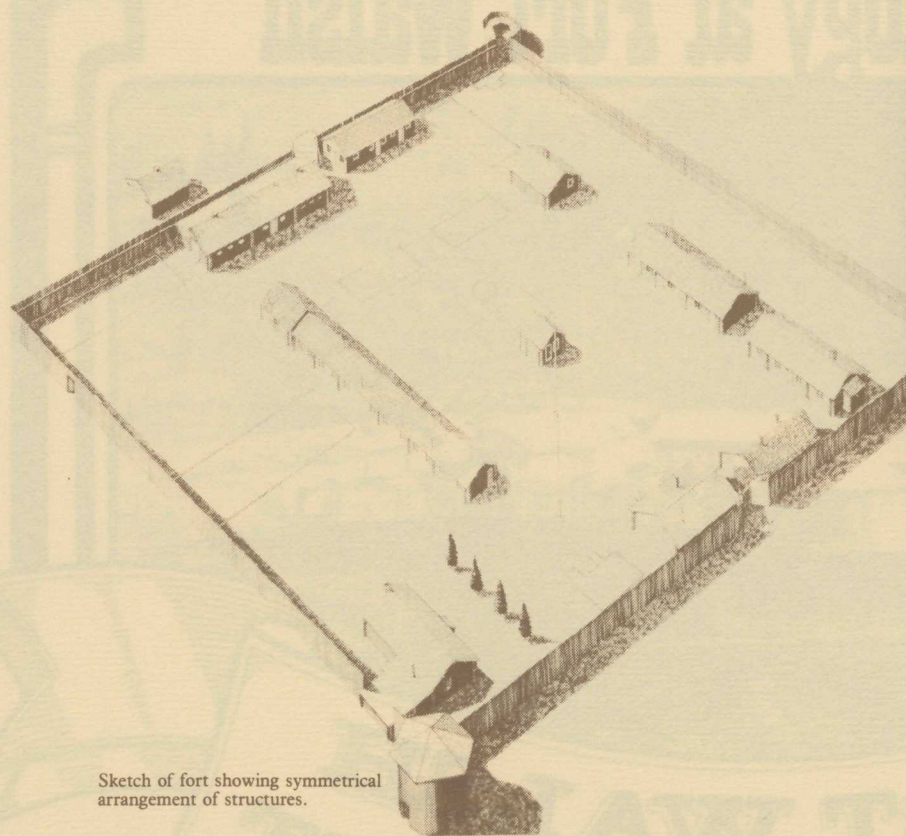


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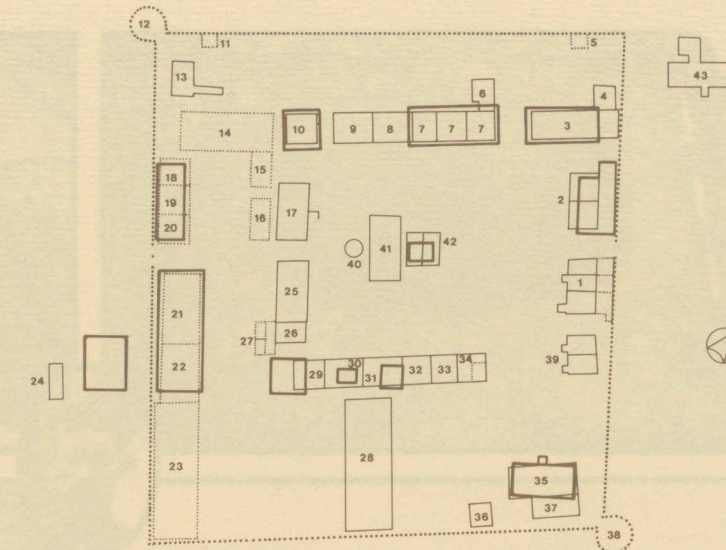
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Sketch of fort showing symmetrical arrangement of structures.



A favourite past time at Fort Walsh — posing for a picture. Fortunately such portraits provide a valuable source of architectural data; in this case, the library constructed in 1881. Credit: Glenbow-Alberta Institute, NA-659-30.



The 1883 layout of Fort Walsh as superimposed over the modern buildings (shown in bold outline).

- | | | |
|--------------------------------|----------------------------|-------------------------------------|
| 1. Officers' Quarters | 9. Saddlery | 28. Barracks |
| 2. Superintendent's Quarters | 10. Armoury | 29. Veterinary's Office |
| 3. Orderly Room/Officers' Mess | 11. NCO Privy | 30. Washrooms |
| 4. Officers' Kitchen | 12. Northwest Bastion | 31. Baths |
| 5. Officers' Privy | 13. Powder Magazine | 32. Barracks |
| 6. NCO Kitchen | 14. Stable | 33. Officers' Mess |
| 7. NCO Barracks | 15. Auxiliary Structure | 34. Division Stores/Sergeant's Mess |
| 8. Shoemaker's Shop/Gunsmith | 16. Harness Shop | 35. Commissioner's Residence |
| | 17. Oat Stores | 36. Commissioner's Privy/Bath House |
| | 18. Work Shop | 37. Commissioner's Kitchen |
| | 19. Blacksmith's Shop | 38. Southeast Bastion |
| | 20. Carpenter's Shop | 39. Library/Recreation Room |
| | 21. Sick Horse Stable | 40. Well |
| | 22. Stable | 41. Quartermaster's Stores |
| | 23. Stable | 42. Guardhouse |
| | 24. Enlisted Men's Latrine | 43. Hospital |
| | 25. Barracks/Mess | |
| | 26. Cookhouse | |
| | 27. Auxiliary Structure | |



Archaeologists removing sod from a NWMP building site. The foundations will be uncovered to collect information on building architecture and construction detail.

The Mounties' Home on the Range

Originally constructed in 1875, Fort Walsh was built entirely from logs and only those structures essential to the immediate needs of the force were provided. The fort was arranged symmetrically on an east/west axis. Seven structures were set around an open square and the complex was partially enclosed by a vertical log wall (palisade). Two structures divided the enclosure into distinct areas — the smaller stable compound on the west side of the fort, and the residential area on the east. The residential area was also divided on the basis of rank, with commissioned officers occupying the east side of the compound and the enlisted men located next to the stable and artisan shops.

With the 1878 transfer of force headquarters to Fort Walsh, changes were made. The north and south palisades were moved some distance outward to enclose an area of approximately 103,000 square feet. In

addition, the square bastion was removed from the east palisade and replaced by circular bastions at the northwest and southwest palisade corners.

Although increased building construction altered the symmetrical layout and shape of the fort, the organization of space remained essentially unchanged with separate areas set aside for officers, enlisted men and the stables. By 1880 each rank (enlisted men, noncommissioned officers, officers and commissioner) was provided with separate residences, latrines, kitchens and mess areas. The division of daily activities on the basis of rank was no doubt an attempt on the part of the force to imitate the rigid class consciousness of Victorian society in eastern Canada.

There was also a tendency during the expansion to specialize the activities performed in some structures. For example, in 1875 only one building was required to meet all the storage needs of the post. By 1883 storage areas included the quartermaster's stores, division stores, officers' stores, magazine, armoury and oat stores. Similarly, some activities which the enlisted men were previously required to confine to their barracks were

assigned to other buildings within the fort. The formal separation of activities may reflect a more rigid behavioral structure within the N.W.M.P. force.

A Tame Frontier

Of particular importance, archaeological research has shown that, despite the popular concept of a "wild" frontier, defense was not a major concern in the construction and layout of Fort Walsh. The palisade merely consisted of logs, thirteen feet in length, set vertically in a shallow footing trench. Rocks or other materials were not used to stabilize the wall base and the upper section was only secured by a single horizontal log nailed about four feet from the top of each post. The varying log sizes and the irregular spacing of the posts probably gave the wall a makeshift appearance. In addition, the acidic soil acting on the untreated logs created a lack of stability resulting in the collapse of a section of the palisade in a wind storm.

Because the palisade was also built without a firing platform or catwalk, it would have been very difficult for defenders to protect the walls. Although the palisade would provide the post with some protection in case of an attack, the design and construction of the structure was not undertaken as part of a major military defensive strategy. Instead, the palisade functioned primarily as an elaborate fence or barrier to isolate the post from the civilian community and keep order and control over personnel.

The military significance of the bastions was also secondary. Archaeological investigations have indicated that the structures were not built with firing platforms but were roofed and used for grain storage. Although the bastions would probably provide some protection in an emergency, they were primarily designed and built as granaries.

All the structures at Fort Walsh were single storey, constructed from skinned, unshaped logs, chinked with a mixture of clay and sand. The buildings, including the palisade, were also whitewashed on the interior and exterior surfaces with a coating of local white clay. Methods of construction generally conformed to one of two techniques. Utilitarian structures such as the stables and some storage buildings and privies were built of upright logs placed side by side in a

shallow footing trench. Residential buildings and major warehouses, however, were constructed from horizontally laid logs which were saddle-notched at the corners. The upright log technique was also used to build a partition in the officers' stores and in the construction of an addition to the officers' quarters.

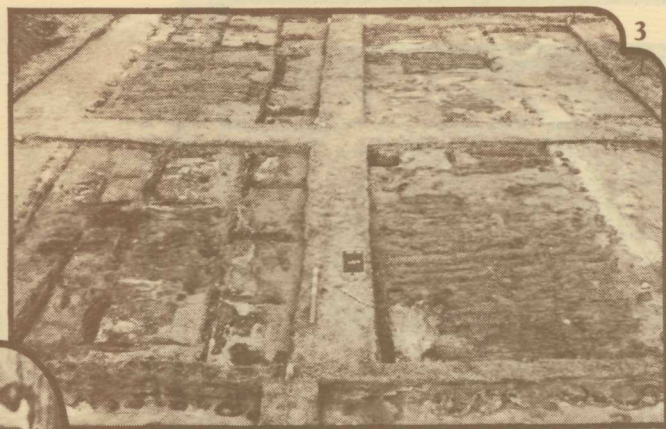
The N.W.M.P. made only limited efforts to prepare and level a building site before construction. The lower wall logs and floor supports were placed directly on the ground surface without a raised foundation. Floor elevations generally followed the ground level. For example, east/west floor elevations in the officers'/divisional stores complex varied as much as 0.9 metres over the length of the structure.

Lumber for flooring, roofs and doors was pitsawn by the enlisted men who earned extra pay for the work. Since a considerable amount of time and labour was required to produce boards in this fashion, cut lumber was probably at a premium for several years. Some structures, such as the veterinary's office and one room in the divisional stores complex, were not provided with a wood floor until some time after initial construction.

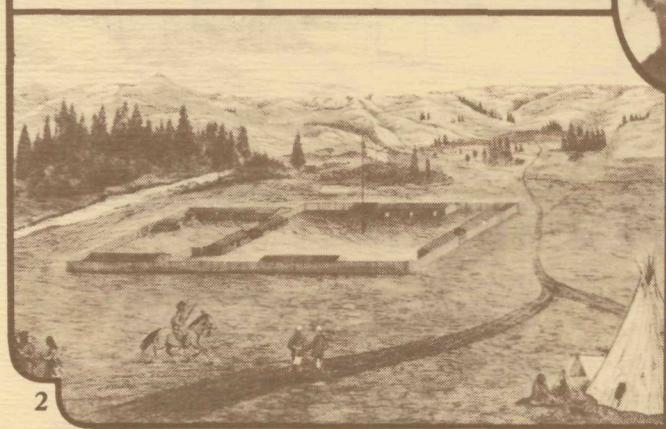
Except for the 1880 enlisted men's barracks and the 1875 barracks/mess, the roofs of all residential buildings



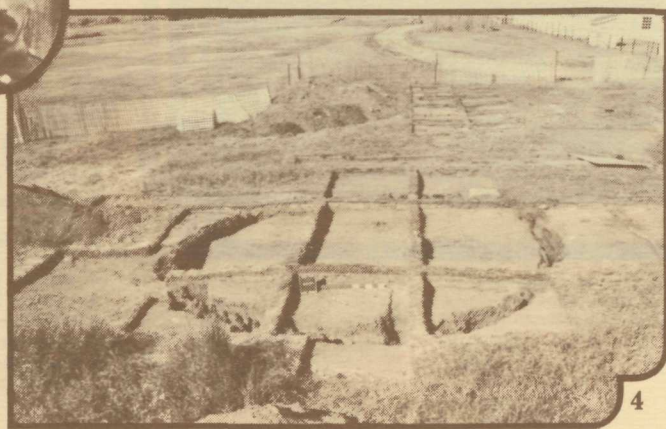
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1 The remains of the log walls and pit in the officers' privy as uncovered by the archaeologists. The entrance to the structure is delineated by the opening in the wall at the bottom of the photo.

2 Fort Walsh as drawn in 1875 by A.J. Delaney for the *Canadian Illustrated News*, July 1876.

3 The remains of the north stables as uncovered by the archaeologists. Floorboards, joists, and vertical log walls can be seen in the photo (view facing northeast).

4 The excavation of the northwest bastion footing trench (view facing northeast).

and workshops were low pitched and constructed from split poles laid flush from the central ridge pole to the plate logs. The roof was insulated with about 8-15 cm of clay and surfaced with overlapping planks. The roofs of stables and privies (except the commissioner's latrine) were constructed in a similar fashion but without the clay insulation. As might be expected, this type of roof construction was not particularly suitable for water run-off. The historic documents frequently contain complaints about leaks and dampness after a major storm. Storage buildings, therefore, were usually built with a high pitched roof and finished with a more expensive shingled surface. The extra expense of a shingled roof was apparently justified on the grounds that the building interiors would be kept dry and there would be less spoilage of stored goods.

Perhaps the strongest impression to be drawn from the structural history of Fort Walsh lies in the simple

techniques used in the design and construction of the post. Although building a frontier fort was certainly no easy task, more sophisticated methods of log construction would have been possible. However, the police apparently avoided such practices. This may in part be explained by the lack of trained carpenters on the work force. This suggestion is consistent with the rapidity of construction noted for the initial years at Fort Walsh and attempts on the part of the force to keep expenses at a minimum by undertaking much of the construction on their own rather than through contract.

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