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THE NORTH WEST COMPANY AND THE HUDSON'S BAY COMPANY FORTS:  
1810 to 1830

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Fur trade history at the confluence of the Red and Assiniboine Rivers has been an object of study since the 1800s. Trading was practiced at the Forks even before the North West Company established its first Fort or House in the area. The establishment of forts provided an important trading centre for the area. Four forts that were built between 1810–1830 are: Fort Gibraltar I, Fort Gibraltar II, Fort Carry I and Fort Carry II. Both Fort Gibralters were constructed by the North West Company, a Montreal-based fur trade company established in 1804, while the latter belonged to the Hudson's Bay Company which amalgamated with the North West Company in 1821. The purpose of this paper is to present a structural history of these forts, determine their location at the Forks, and describe the construction techniques of the period. The archaeological significance of the study will be discussed.

The confluence of the Red and Assiniboine Rivers or the Forks refers to the land adjacent to the junction. This area is divided into three sections: (1) the area west of the Red and north of the Assiniboine, known as the Canadian National Railways East Yards, (2) the area east of the Red, opposite the mouth of the Assiniboine, known as St. Boniface, and (3) a narrow pointed projection of land on the south side of the Assiniboine and on the west side of the Red known as Fort Rouge (Guinn 1980:12).

Fort Gibraltar I was the first major North West Company Post to be established at the Forks. According to Douglas (1945:57), there were two major reasons for its construction: (1) to oppose the expanding Hudson’s Bay Company trade, and (2) to discourage settlement, initiated by the Earl of Selkirk, in the Red River District. In 1810, John McDonald of Garth, a North West Company partner, was sent from the Rockies to the Forks to build "Fort Gibraltar" (Guinn 1980:39). McDonald stated in his autobiography that he "established a fort at the junction of the Red and Assiniboine Rivers, and called it 'Fort Gibraltar' though there was not a rock or stone within three miles" (Voornis 1930:74 and Bell 1927:19). Fort Gibraltar was also known as "Canadian House", and its servants as "Canadians" (H.B.C.A., P.A.M., B.235/a/3, Eq. 14).

Numerous descriptive accounts were recorded of Fort Gibraltar I. These range from trial evidence to oral history and historic records. At the trial of Colin Robertson, a Hudson’s Bay Company servant who led an attack against Fort Gibraltar in 1816, two witnesses, Jean Baptiste Roi and Jean Baptiste Hennia, gave evidence which included the state of the Fort prior to the attack. The former testified:

I know the forks of Red River and a fort built there by a man of the name Wills; he was a bourgeois [partner] of the North West Company at the time the said fort was built. It was a wooden picketing, made of oak trees split in two.
which formed its enclosure. Within the said enclosure were built the house of the partner, two houses for the men, a store, two hangars or stores, a blacksmith's shop, and a stable; there was also an ice house with a watchtower over it; these houses were good log houses, large and inhabited (Douglas 1945:56).

According to Mennie:

We were employed a whole year in building it. In the winter there were twenty men there who were all employed. The fort was built by Mr. Willis who died there and was succeeded by Mr. Cameron [Duncan]. There were in the fort, one house sixty-four feet long, one of thirty, a kitchen of fifteen feet, another house twenty-eight feet, a store twenty-two feet, and other buildings (Douglas 1945:56).

Other accounts were related by Green and Bryce. Green (1974:85-6) describes the fort as follows:

Inside an 18-foot stockade of stout oak logs were upwards of a dozen buildings: a 64-foot main residence, two servants' houses, store, kitchen, ice house, and a number of stables for horses, cattle, other livestock and poultry. A high lookout point gave a clear view of the entire countryside in all directions.

Bryce (1885:138), on the other hand, relates the impressions of a resident of Winnipeg, around 1885:

The stockade of Gibraltar was made of oak trees, split in two. The picketing was from twelve to fifteen feet high and enclosed seven buildings. These include: (1) the residence of the Bourgeois (John Willis), sixty-four feet long, (2) two houses for the servants, thirty and thirty-eight feet long respectively, (3) one store, thirty-two feet long, (4) a blacksmith shop, (5) a kitchen, (6) an ice house and (7) a watch tower (guerite) over the ice house.

The similarities between the descriptions validates the accounts.

Further information is revealed in the accounts of the attack on Fort Gibraltar. In retaliation for the burning of the Selkirk Settlement on June 28, 1815, and to prevent similar action by the North West Company in the future, Colin Robertson and the colonists planned an attack against Fort Gibraltar. March 20, 1816, one day prior to the attack, Robertson noted the following of Gibraltar:

Examined Gibraltar this morning, it is certainly in an excellent state of defence; it has two good bastions at the two angles of the Square and the Square is formed
with Out Palisades, eighteen feet in height and these are proof against Musketry. This is not only a strong place but a very comfortable lodgings, such as I have not been accustomed to for some time past (Douglas 1956:58).

The following day, Robertson led the attack. He wrote:

At half past six I had them under arms ... When I got half way to Gibraltar I halted my men and communicated to Messrs. Mclean, Hoyt and Burke the form of the attack; that I should lead the van [guard] and enter Cameron's hall, that Mr. Mclean should attack the men's house on right and Mr. Burke that on the left ... I came up to the small wicket in the large Gate, just as the guard was attempting to shut it, this I forced, my faithful servant followed me and in a few minutes the Fort was ours (Guinn 1980:51-2).

This initially resulted in the Fort being seized, but it was later returned to the North West Company.

A second attack on Gibraltar resulted in its complete destruction. On June 11, 1816, Governor Semple and his party left Fort Douglas, the Colony Fort, to attack Gibraltar. Their offensive was successful and "the greater part of the N.W.Co. House and buildings and stockades were pulled down and conveyed to Fort Douglas. Part of the stockades and two good bastions were erected" (Guinn 1980:52 - cited from P.A.H., M 173, Selkirk Papers, p. 2524). Thus, Fort Gibraltar was destroyed.

Finally, an analysis of the descriptions provides a profile of Fort Gibraltar. It is important to remember that each account does not constitute absolute fact, and the archaeological evidence cannot be made to fit history (Noel-Hume 1969:27). When these factors are considered, the data suggest the following layout of the Fort. Fort Gibraltar I consisted of a square stockade, 12 to 18 feet high, facing the Red River, enclosing up to twelve buildings. The two men's houses, approximately 30 to 40 feet long, were situated to the right and left of the main gate, since Robertson stormed these buildings first in his attack. The watch tower or guarite was probably on a corner of the Fort that best allowed viewing over the plains and the rivers. Since Fort Douglas was downstream from Gibraltar, a likely location would be a corner towards the river, possibly the northern-most one. This would situate the ice cellar beneath the tower, and the kitchen could be near the ice cellar to facilitate access to a storage area. Two bastions were erected by June of 1815 and one probably replaced the watch tower, while the other was located diagonally to it.

Numerous inferences can also be made from the data. Since the House of the partner, the main residence, and Cameron's Hall all appear to be considered a major structure in the descriptions, they probably refer to the same building, 64 feet in length. The location of Cameron's Hall, the store, two hangards or storeas, a blacksmith shop and a stable were not documented,
but the following inferences may be made. Cameron's Hall could be situated near the men's houses or possibly along the rear wall of the stockade. The store would be located near the hangards to allow easy access to dry goods storage, and the stables and blacksmith shop would be as far as possible from the kitchen and the living quarters for sanitary reasons.

Fort Gibraltar was rebuilt after an enquiry was held. Once William B. Colton, a Quebec merchant who investigated the situation at Red River, issued his report calling for the restitution of all property, the North West Company began to rebuild Fort Gibraltar. In August of 1817, construction began near the original site (Guinn 1980:54 and Seaman 1920:32). Peter Fidler noted its progress in 1819:

... They have enclosed the whole with excellent sawn oak piquents 14 feet above ground set very close together like a continued wall about 100 feet square. Their large dwelling house not yet built but to be this summer, a Mr. McKenzie, a young clerk, is master there this winter with about 4 or 6 men (Guinn 1980:54, cited from H.B.C.A., P.A.M., B.22/d/1, fo.25).

This structure is known as Fort Gibraltar II (Figure 1).

However, Fort Gibraltar II or Fort Garry I would seem to be in a state of disrepair. After the amalgamation of Hudson's Bay Company and the North West Company, March 26, 1821, the Fort name "Gibraltar" was changed to "Garry" to commemorate Garry's role in the take-over. The name change had been instituted by November 9, 1821 (Guinn 1980:56). Within a one year period, Fort Garry I was in a state of disrepair. In a letter dated May 20, 1822, to Andrew Colville, George Simpson stated:

The Company's place here is a piece with all our other old establishments, filthy, irregular, and ruinous, I am therefore getting the New West Fort in order so as to remove into it next Fall; there is a good frame of a Dwelling House already up ...(Douglas 1956:85-6).

On September 11, it was recorded that:

The buildings in the old fort of the H.B.G. are in a decayed and ruinous condition; the dwelling house can furnish accommodations for only two gentlemen; there is only one building for the purpose of a provision and wholesale store, a retail and Indian-shop, and even that is in such a dilapidated state as to be penetrated by every shower that falls. The dwelling houses for the men (and their families) are mere hovels ... (H.B.C.A., P.A.M., B.235/a/5, fo.2).

Therefore, a new Hudson's Bay Company fort was needed, and it was being constructed adjacent to Fort Garry I.
Construction on the new Fort, Fort Garry II, lasted from 1822 to 1825. The magnitude of this undertaking is indicated by the number of structures planned for the site. These included a new dwelling house, a retail shop, a kitchen, a store, enlargement of the fort’s pickets and the construction of two bastions. Numerous smaller buildings were also constructed. An itemized account of these structures is as follows.

Dwelling House

Construction on a new dwelling house and cellar commenced on September 18, 1822 (H.B.C.A., P.A.M., B.235/a/5, fo.3). Construction of two chimneys was begun on October 7th, and both were completed on the 19th (H.B.C.A., P.A.M., B.235/a/5, fos. 11 and 13). The lower flats (rooms) were completed January 11, 1823, and Messieurs Clarke (Chief Factor) and McMurray (Chief Trader) were the first occupants of Fort Garry II (H.B.C.A., P.A.M., B.235/a/5, fo.31).

Retail Shop

On September 14, 1822, Esson and Carron (carpenters) were employed in repairing the retail shop in the old N. Coast Fort (Fort Garry I) (H.B.C.A., P.A.M., B.235/a/5, fo.2). By October 3rd, property was being removed from the lower fort (Fort Douglas) into stores prepared for it (H.B.C.A., P.A.M., B.235/a/5, fo.9). Seven days later, the "old fort was taken down ... to make use of the timber for building a kitchen" (H.B.C.A., P.A.M., B.235/a/5, fo.11).

Kitchen

Construction of a new kitchen began soon after October 10, 1822. Its chimney was completed by the 25th (H.B.C.A., P.A.M., B.235/a/5, fo.14).

Store

Work commenced June 21, 1824 on the construction of a larger store. Construction of an ice house began on August 5, 1824 and was probably enlarged the following April (H.B.C.A., P.A.M., B.235/a/6, fos.3,8,27-28d).

Fort’s Pickets and Bastions

On November 1, 1824, men were employed "shifting parts of the pickets of the fort, to enlarge the wood yard" (H.B.C.A., P.A.M., B.235/a/6, fo.16d). The following spring, picketing began on the northeast side of the fort and work commenced on the erection of a bastion at the north angle (H.B.C.A., P.A.M., B.235/a/6, fos.28d-30d). By April 30, 1825, the picketing and bastion walls, which were two storeys high, were completed (H.B.C.A., P.A.M., B.235/a/6, fo.30d). A similar bastion was initiated on the east angle of the Fort on June 13, 1825, and its walls were finished by the 27th (H.B.C.A., P.A.M., B.235/a/7, fo.2).
Timber repairs began on the root house of Fort Garry I on September 28, 1822 (H.B.C.A., P.A.M., B.235/a/5, fo.5). On December 2, 1822, Cameron started to work on "a large box for the purpose of containing grain" (H.B.C.A., P.A.M., B.235/a/5, fo.23). And a temporary powder magazine was erected on September 9, 1824 (H.B.C.A., P.A.M., B.235/a/6, fo.12).

Furthermore, the closure of Fort Douglas in 1825 enhanced the expansion of Fort Garry II. "The buildings of Fort Douglas were in a ruinous state and could not have stood another year, the Main House (was) rotten to the foundation and tottering" (Douglas 1956:86). It was conditions such as these which prompted Simpson to consider "... it advisable both in reference to convenience and mutual safety that the two forts [Fort Douglas and Fort Garry II] should be under the protection of the same bastions and the same range of picketing" (Douglas 1956:86). The result was the movement of the stores at Fort Douglas to Fort Garry in October, 1822, and the closure of the Fort, June 11, 1823 (H.B.C.A., P.A.M., B.235/a/5, fo.9 and Martin 1898:46).

Similarly, Francis Heron and MacKenzie refer to a Fort Garry II - Fort Douglas complex. Heron noted that an "old Fort Douglas" was sold to Robert Logan and a "new Fort Douglas" was built (H.B.C.A., P.A.M., B.235/a/7, fos.10-11). A letter dated August, 1826, from MacKenzie to Andrew Colville, described the condition of the forts after the 1826 flood:

Our fort being situated at the junction of both rivers it has been subject to great dilapidation, more especially the side belonging to the Company. The main body of the Colony buildings [Fort Douglas] stood out the pressure, but the stockades ... have either been smashed in pieces or carried away by the stream. However between the buildings of both, enough can be repaired for purpose without material expense (Heron 1950:42).

Thus, the statements indicate that a Fort Douglas II was erected adjacent to Fort Garry II.

Undoubtedly, the 1826 flood had a dramatic effect on the Fort complex. The Red River inundated its banks on May 5, 1826. "The waters rushed into the Forts, but the banks being fortunately high, the ice only rubbed against the corner of our bastion" (H.B.C.A., P.A.M., B.235/a/7, fos.32d-33). By the 13th, the ice on the Assiniboine had broke and "the pickets and the chimneys of the houses were falling daily, as well as the plastering of the walls; and even the houses themselves began to totter on their foundations" (H.B.C.A., P.A.M., B.235/a/7, fo.34). On May 14th, at the height of the flood, the buildings began to give way to the rushing flood waters:

Our New Block-House, on the front side of the fort, the best in Rupert's Land, built last summer, was this morning carried off in an instant with part of the picketing. It fell with a crash like thunder, as if to extinguish our
hopes for the safety of the remaining buildings. The chimneys of the houses are nearly all fallen, and the shattered walls of the buildings also begin to give way to the overpowering force of the current. The houses rock to and fro ... like a ship at sea, every joint opens, every beam bends ... (H.B.C.A., P.A.M., B.235/a/7, fo.34d).

Two days later, the remaining servants "abandoned the Fort as being too unsafe to reside in" (H.B.C.A., P.A.M., B.235/a/7, fo.35). By the 15th of June, the Rivers had retreated enough to allow the Company men to return to their Fort. They "found it in a complete pile of ruins, and pitched along side it, there being no houses yet habitable for our reception" (H.B.C.A., P.A.M., B.235/a/7, fo.43). Thus the majority of the Fort's buildings were in ruins.

A period of reconstruction was now initiated. "The people of the Forts were busily employed ... repairing houses for the winter" (H.B.C.A., P.A.M., B.235/a/8, fos. 2-2d). On June 15, 1828, "men were hired to repair the Fort, such as pulling down old houses and erecting new in their stead" (H.B.C.A., P.A.M., B.235/a/12, fo.1d).

In spite of the constant repairs, Fort Garry II was in a state of disrepair by 1830. At a Northern Departmental Council meeting, on July 3rd, the following resolution was passed:

The establishment of Fort Garry being in a very dilapidated state, its situation not sufficiently central, much exposed to the spring floods, and very inconvenient in regards to the navigation of the river and in other points of, it is resolved that a new establishment to bear the same name be formed on a site to be selected near the lower end of the rapids ... (Cowie 1913:161-2).

This ended a period of continuous construction at the Forks, and began the construction of Lower Fort Garry.

An analysis of the structural history of Fort Gibraltar II, Fort Garry I and Fort Garry II are dependent upon each other. This method is required because only the name has changed from Fort Gibraltar II to Fort Garry I, and Fort Garry II was built adjacent to Fort Garry I. Fort Gibraltar II - Fort Garry I had a 14-foot, sawn oak, continuous wall about 100 feet square, enclosing a large dwelling house and at least one men's house. Since a provision and wholesale store and a retail shop were recorded as being in ruins in 1822, they were probably built during the Fort Gibraltar II phase. No indication is given as to the structural arrangement of the buildings within the Fort. Thus, the structural history of the Fort is not extensively documented.

The Fort Garry II complex includes three stages of construction. A new dwelling house with a cellar, a retail shop, a kitchen, and a store were major constructions in Fort Garry II. Although no indication is given as to the layout of the Fort, some existing buildings of Fort Garry I were
utilized in the complex. An example of this is the utilization of a root house originally built for Fort Garry I by the Company. The closure of Fort Douglas and its relocation adjacent to Fort Garry II facilitated an expansion of the complex. Thus, the Fort Garry II complex was an incorporation of the salvagable buildings from Fort Garry I, the buildings of Fort Garry II, and the structures attributed to Fort Douglas II.

Fort Locations

The precise locations of these forts are not known. References to them are at the "Forks", on the west side of the Red and on the north side of the Assiniboine. Poison, Bell, and Bryce all recorded approximate locations for the forts, but the changing water systems and topography have made their descriptions out-of-date. The location of Fort Gibraltar I was identified from a Story of John Poison, Farmer. Poison remembers that "old Fort Gibraltar stood between old Fort Garry and the Upper Ferry, about where the immigrant sheds are now" (Figure 2) (Bryce 1882:160). Bryce's informant also remembered that:

It [Fort Gibraltar] faced towards the Red River rather than the Assiniboine, and was situated below the site of the recently removed immigrant sheds ... this fort was about fifty yards back from the river ... the river was then 150 yards wide; it is now at this point about 200 yards ... (Bryce 1885:137-8).

And Bell thought he saw the remains of Fort Gibraltar in 1871. He states:

I took a walk down the Assiniboine from Fort Garry a few hundred yards to the traditional site of Fort Gibraltar, and there plainly to be seen very near to the edge of the bank, were recognizable hollows representing cellars, and the mixture of semi-calcined limestone, remains of chimneys ... it was clear to us that buildings of some kind had been on that ground, though it was also evident that almost the whole area of the enclosure that had once been there ... I am quite satisfied that the hollows and chimney debris which we then saw were the last remains of Fort Gibraltar (1927:19).

But these features could have been from earlier or later structures, and not necessarily those of Fort Gibraltar. Therefore, the exact location of Fort Gibraltar I is not known.

Similarly, the location of the Fort Gibraltar II - Fort Garry I - Fort Garry II complex is also problematical. The location of Fort Garry I or II was recorded by Bryce, who states that an old resident remembered seeing the Fort in 1849:

It was 200 feet on upwards on each side. The master house [or what had been used as such] was opposite the gate, and his office window looked out on the square enclosed.
Fig. 2. River junction, 1871-1880. Parks Canada, Manuscript Report Number 395, p. 335.
Along the square on each side were the necessary buildings; store, men's houses, carpenter and blacksmith's shops, storehouses, etc.; for a large fur trade (Bryce 1885:143-44).

Another reference to its location is in MacKenzie's letter of 1826, in which Fort Douglas II is identified as being adjacent to Fort Garry II (Neron 1950:42). Although the locality is known, the exact location of the complex is not (Figure 3).

Construction Techniques

The construction activities at the Forks utilized locally-available resources. Two useful accounts of materials available at the Forks are by Alexander Henry the Younger and by Daniel Williams. Henry, who passed the junction in August of 1800, stated:

The beach along this river [Assiniboine] being black mud, the last rain turned it into a kind of mortar that adheres to the feet like tar, so that in every step we raise several pounds of it, and everything that touches it receives a share. The S. side of the Assiniboine, particularly near the Forks, is a woody country, overgrown with poplars so thickly as scarcely to allow a man to pass on foot; this extends some miles W., when the wood is intersected by small meadows. The woody country continues S. up Red River to Riviere la Sale. On the E. side of the Red the land is low, overgrown with poplars and willows, frequently intersected by marshes, stagnant ponds, and small rivulets. The banks are covered so thick and close as scarcely to admit going through; adjoining these is commonly a second bank of no great height. This is covered with very large wood such as liard, bois blanc, elm ash, and oak; some of these trees are of enormous size (Guinn 1980:12-13).

In 1805, Williams also noted that:

The Forks or where the Upper [Assiniboine] and Lower Red River form a junction — and herewith the country appears to have a richer soil than at any other place, I have observed in this part of the world — and is covered with Oak, Basswood, Elm, Poplar and Birch, etc., also here are Red Plums, and Grapes ... (Guinn 1980:13).

The timbers would be felled with an axe or a saw, rafted down to the building site, then squared or properly finished for construction (Bealer 1978:33-35 and H.B.C.A., P.A.M., B.235/a/3, fo.1d).

The construction type of the period, from 1810 to 1830, is characterized as "Red River Frame" or "Hudson's Bay Style" (Wade 1967:4). For implementing of this technique, it was recommended in 1882, that "vertical oakan posts be placed at each corner, five or six feet in length and sills, foundation timbers, spiked firmly to them" (Spence 1882:17). These verticals
Fig. 3. River junction, 1822-1850. Parks Canada, Manuscript Number 355, p. 265.
and other uprights along the structure were grooved to allow horizontal logs to slide between them (Figures 4 and 5) (Wade 1967:4). Buildings built of this type probably had a cellar which would allow for easier access in installing the vertical corner posts.

Other possible construction techniques include dove-tailing, saddle and flat or square-notch. All of these types are identified by their corner joint (Figure 5). There are also variations of these types. Dove-tail notching is a French technique, which was brought to Red River by the North West Company. This method is the strongest and most durable (Hoogk 1977:34). The saddle and square-notch are not as durable and are moved relatively easily by settling and climatic conditions. All of these techniques require long straight timbers to be most effective.

Construction techniques of specific features have been documented. These include methods for building the foundation, the roof, the chimney, windows and doors, floors and wall plates, and plastering techniques and are itemized below.

Foundation

The foundation timbers were usually larger than the wall timbers. This added support to the structure and increased the time by which the foundation would rot. These timbers are referred to as "sills" (Bealer 1978:36 and 40).

Roof

Roofing construction took three forms: (1) shingles nailed onto the roof, (2) boards lashed down onto the roof, or (3) mud or sod applied to the roof (Bealer 1978:36 and H.B.C.A., P.A.M., B.235/a/5, fo.14). The roof was gable-shaped and the boards and shingles were split with an instrument called a "froe or frow" (Sloane 1964:30).

Chimney

Chimneys were usually constructed once the main body of the structure was completed. It consisted of a mixture of earth, clay, straw, and water kneaded into a paste and baked hard by the fire (H.B.C.A., P.A.M., B.235/a/3, fo.10 and B.235/a/6, fo.12 and Wade 1967:51). "Once the mixture had hardened the chimney would be replastered" (H.B.C.A., P.A.M., B.235/a/5, fo.13). Finally, the "earthen chimney ... was encased in boards" (H.B.C.A., P.A.M., B.235/a/5, fo.61).

Windows and Doors

Windows and doors were small in comparison to the entire wall surface (Wade 1967:51). They were probably cut into a finished wall surface (Bealer 1978:44). Windows were placed within a frame, and doors were multi-paneled (H.B.C.A., P.A.M., B.235/a/5, fo.55 and 2.8/8, fo.31d).
Fig. 4. "View in Selkirk Settlement, Manitoba", a sketch ascribed to Lord Selkirk, c. 1817. Public Archives of Canada c8714.
Red River Frame Construction

Saddle-Notching

Flat or Square-Notching

Dove-Tail Notching

Fig. 5.

After Wade 1967:5

After Bealer 1978:40-41
Floors and Wall Plates

Preferably oak or poplar timbers were sawn into planks, and then grooved to allow for a proper installation (H.B.C.A., P.A.M., B.235/a/3, fo.11 and B.235/a/6, fo.7). These planks could either be used for laying a floor or installing wall plates, an interior and/or exterior covering for the timber walls (H.B.C.A., P.A.M., B.235/a/3, fo.9 and B.235/a/5, fo.15).

Plastering Techniques

These techniques were: chinking, "muddening", and white washing the structure. Initially, the spaces between the timbers were filled with chinking, a mixture of mud, clay, straw, buffalo hair, etc. (Wade 1967:50). This procedure was done to both the exterior and interior of the wall (H.B.C.A., P.A.M., B.235/a/4, fo.2 and B.235/a/6, fo.17). "Muddening" refers to the use of mud to plaster over the walls of the structure. This method was probably used on out-buildings, as was the case for the "cow houses and stables" (H.B.C.A., P.A.M., B.235/a/7, fo.11). Another technique was to substitute the chinking with bark, such as "elm bark", and then "mud" the structure (H.B.C.A., P.A.M., B.235/a/6, fo.3-5). Lastly, both the exterior and interior walls were whitewashed (H.B.C.A., P.A.M., B.235/a/5, fo.20 and B.235/a/6, fo.18).

Archaeological Significance

The archaeological significance of incorporating structural history and location, and construction techniques can be demonstrated in the following manner. Once the structure, its location, and its method of construction have been determined through the historical (archival) record, it can be complemented by the archaeological record. The archaeological data can be examined within the available historical base. If relevant, the historical and archaeological data can complement each other. But the history cannot be made to fit the archaeological evidence or vice versa (Noel-Hume 1978:27). Through this type of comparative analysis, a combined archaeological/historical (archival) study can result in the formation of a theory (Noel-Hume 1978:32); the study provides a probability outline as to how many individual structures there were, their possible locations, and how they may be structurally identified in an archaeological context. The reverse of this situation is shown in fieldwork. Once a feature has been identified, its analysis may resemble structures that have been identified in the historical record, thus possibly identifying the associated fort. Therefore, archaeological as well as historical evidence can effectively complement each other.

Conclusion

During the period 1810 to 1830, four forts were situated at the Forks: Fort Gibraltar I, 1810 - 1816; Fort Gibraltar II, 1817 - 1821; Fort Garry I, 1821 - 1822/5; and Fort Garry II, 1822/5 - 1830. A structural history of these forts, accompanied with probable site locations and construction techniques, provide a portion of the history available at the Forks. The remainder will be provided by future archaeological fieldwork.
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MOOGK, Peter N.

NOEL-HUME, Ivor


OLIVER, Edmund H.
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<td>1882</td>
<td>Useful and Practical Hints for the Settler on Canadian Prairie Lands ... St. Boniface. n.p.</td>
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