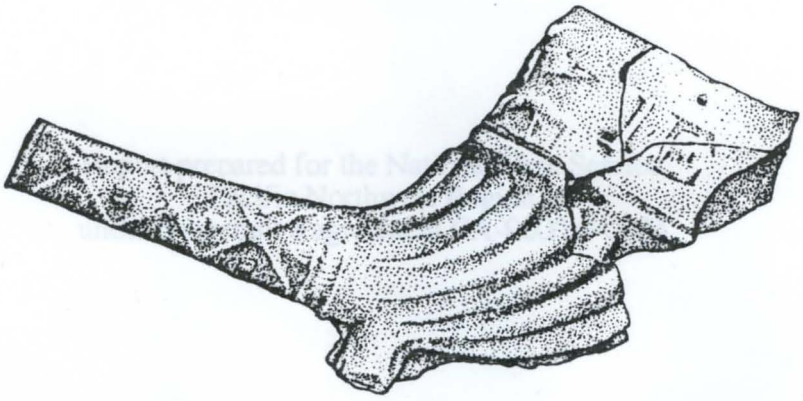
Archaeological Assessment of the 1844 to 1860 Carpenter Shop Site at Fort Vancouver National Historic Site, Clark County, Washington

by

David R. Brauner



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Report prepared for the National Park Service
Pacific Northwest Region
under cooperative agreement CA-9000-9-0004

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Cover Art: John Ford kaolin clay pipe found at the Jason Lee Mission Site. Pipe was obtained at Fort Vancouver in mid-1830s.

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1. INTRODUCTION

Although Louis Caywood failed to find any archaeological evidence for the 1844 to 1860 Carpenter Shop during his pioneering archaeological investigations of the Fort Vancouver site in 1948 and 1950 (Caywood 1955:12), John Hussey, after reviewing Caywood's data, was skeptical of Caywood's conclusions. Caywood had claimed that he had excavated the entire area of the Carpenters Shop and had found no structural evidence for the building. After reviewing Caywood's notes, Hussey (1976:412) came to the following conclusion:

> Although the text of Mr. Caywood's archaeological report states that the area of the Carpenter Shop was "completely uncovered" in 1948 and 1950, sheet 8 of his excavation drawings appears to show that certain portions of the site may have escaped exploration. The determination of the succession of structures in that section of the fort is so important that a fresh excavation of the entire area between the Wheat Store and Jail is recommended. If evidence of even one or two footings could be found, it would be possible to speak with much more assurance concerning the physical structure of the Carpenter Shop.

Hussy (1976:412) also recommended that given the important interpretive potential of the Carpenter Shop, the structure should be reconstructed and refurnished. Twenty years later, his recommendation is being seriously considered.

In early June 1994 an agreement was reached between this researcher, Oregon State University, and the Pacific Northwest Region of the National Park Service to conduct archaeological excavations at the Fort Vancouver National Historic Site. Specifically, the excavations were to focus on the site of the 1844 to 1860 Carpenter Shop. Archaeological evaluation of the Carpenter Shop site is a necessary prelude to the potential reconstruction of this structure for interpretive purposes. Research questions which guided our excavation strategy were as follows:

1. Do structural features or debris scatters remain that will allow us to pinpoint the location of the Carpenter Shop ?

2. Were other structures or exterior activities located on the site prior to construction of the Carpenter Shop ?

3. Will site integrity and material content allow us to guide restoration architects in an accurate reconstruction of the building, determine the range of activities that may have taken place in the Carpenter Shop and accurately date the functional life of the structure ?

4. What impact did the railroad spur construction to the Spruce Mill in 1918 and its subsequent removal have on the site ?

5. What impact did Louis Caywood's 1948 and 1950 excavations have on the site?

With these questions in mind, excavations began at the Carpenter Shop site on June 29, 1994. The data recovery project was directed by Dr. David Brauner, Department of Anthropology, Oregon State University, assisted by Tim Trussell, Field Foreman, and Steve Kramer, Laboratory Technician. Seventeen field archaeologists from Oregon State University rounded out the crew. Excavations continued for 6 weeks and were completed on August 4, 1994.

During the 6 week field season we excavated a 10 by 6 meter block which would have encompassed the eastern half of the Carpenter Shop. Excavations were taken to a depth of 80cm below the modern surface and 60 cm below the Hudson's Bay Company surface. We essentially terminated excavations at the base of Caywood's deepest trenches. Caywood's excavations were much more extensive than indicated on the maps provided in his 1954 report. His statement that he had completely excavated the site of the Carpenter Shop was more accurate than Hussey or we had assumed.

Although we recovered a large number of artifacts, most of them were in Caywood's backfill and most of the cultural material was not in a datable context or postdated 1860. Of the 13,823 artifacts recovered, only 2,346, or 17%, of these artifacts were demonstrably associated with the Hudson's Bay Company occupation. An undisturbed remnant of a Hudson's Bay Company era surface was identified in the extreme southern portion of our excavations as were some post holes and a trench from the same era observed below Caywoods excavation. The only other non-Caywood feature obsereved was a remnant of the 1918 railroad siding which had serviced the adjacent World War One Spruce Mill.

Needless to say, this researcher's recommendations for future archaeological work at the Carpenter Shop site is not favorable. Previous disturbance to this portion of the Fort Vancouver site has almost negated the ability of archaeologists to provide any meaningfull locational, architectural, or functional data to guide the interpretive program at the Fort.

2. HISTORICAL BACKGROUND

The Carpenter Shop which was the focus of our attention during the 1994 field season was the second carpenter shop built within the confines of Fort Vancouver. The first Carpenter Shop was built in 1829 when the fort was moved closer to the Columbia River. The Carpenter Shop was situated in the southeast quadrant of the relatively small bastion between a storehouse and the blacksmith shop (Fig.1) (Hussey 1976:402). In 1836 the east stockade wall was removed and the bastion was doubled in size. Another significant enlargement of the post occurred about 1841 (Fig. 1). During this period of expansion at Fort Vancouver the Carpenter Shop remained in its 1829 location. A map dated July 25, 1841 drawn by Lieutenant Emmons illustrates the Carpenter Shop in its original location. By September 1844 however, the original Carpenter Shop does not appear on a "Line of Fire" map produced at that time. Although not labeled, a new building appears on this map situated about midway along the north stockade wall between the Wheat Store and the Jail (Hussey 1976:402). A map of Fort Vancouver drawn by Lieutenant M. Vavasour of the British Royal Engineers in 1845 clearly denotes this structure as the Carpenter's Shop (Fig. 2). The Vavasour map also shows the original site of the Carpenter Shop as an open space. Whether the old Carpenter Shop was torn down and a new one built is open to debate. Louis Caywood was of the opinion that the old Carpenter's Shop was simply moved 170 feet to the new location (Caywood 1955:12).

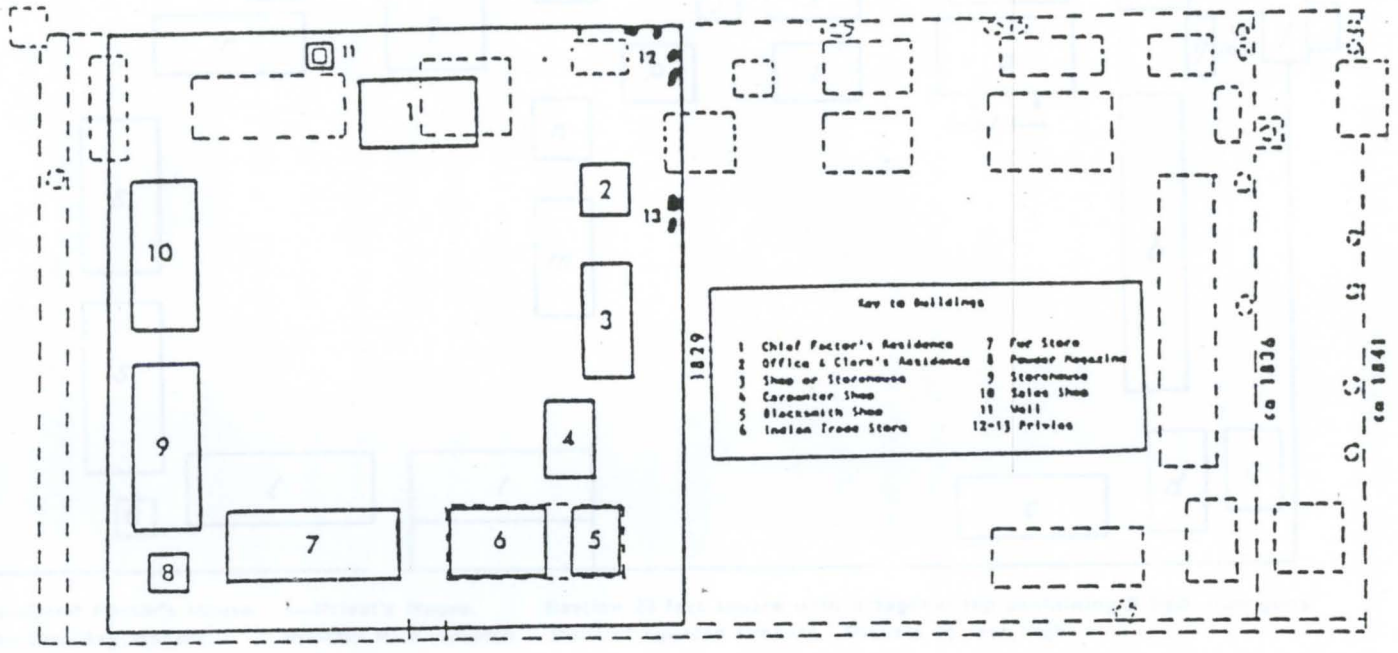
The Carpenter Shop is not visible in any known photograph, painting, or sketch of Fort Vancouver. None of the post-1844 maps of the Fort provide consistent dimensions for the building. Even the usually reliable 1845 Vavasour map has dimensional inconsistencies for the Carpenter's Shop on the three known versions of this map (Hussey 1976:406). Other than a brief notation in an 1846-47 inventory of Company buildings, no written description of this building has been located. This notation simply provides the dimensions of the building as 20 by 30 feet. Hussey (1976:406) concludes that these dimensions should be "accepted as the most reliable evidence available concerning the size of the Carpenter Shop". Louis Caywood's archaeological sampling of the site in 1948 and 1950 shed no further light on the physical structure of the Carpenter Shop. In fact, Caywood found no physical remains he could ascribe to this building (Caywood 1955:12).

Content inventories for the Carpenter Shop are available for the years 1844, 1845, 1847, and 1848. These content inventories are presented in Hussey 1976(408 - 412) and will not be reproduced here.

After the Joint Occupancy Treaty of 1846, the Hudson's Bay Company moved their administrative headquarters in the Pacific Northwest from Fort Vancouver to Fort Victoria (Hussey 1976:403). On August 14, 1848, Oregon was declared a territory of the United States by an act of Congress. President Polk appointed Joseph Lane as territorial governor soon thereafter. Prior to the arrival of the new territorial governor, the United States War Department dispatched a small token force of Army regulars to police the new territory. Two companies of the First Artillery arrived in Astoria on May 13, 1849. Company L, under the command of Major John Hathaway continued on to Fort Vancouver where they garrisoned just north of the old Hudson's Bay Company post. The other company moved on to Fort Nisqually, a Hudson's Bay Company post on southern Puget Sound (Brauner and Stricker 1994:76).

During the winter of 1849-50 a regiment of mounted rifles (1st Dragoons) arrived in the Oregon Territory from Fort Leavenworth. After a brief stay in Oregon City, they were transferred to new quarters at Fort Vancouver. On September 20, 1852, the Fourth Infantry, under the command of Lieutenant Colonel B.L. Bonneville, arrived at Fort Vancouver by ship. Due to its central location on the Columbia River near the mouth of the Willamette River, Fort Vancouver was selected as headquarters for military operations in the Oregon Territory (Brauner and Stricker 1994:76).

Beginning in 1846 the political and economic influence of Fort Vancouver began to significantly wane. During the 1850s most of the land holdings on the Columbia and Willamette rivers were lost and the old Hudson's Bay Company post was engulfed by an expanding American military base also called Fort Vancouver. On June 15, 1860, title to the old Hudson's Bay Company post was turned over to the United States Army. A decades worth of neglect left the old fort in poor condition. Within a few years of acquiring the post, the Army destroyed all of the Hudson's Bay Company improvements at the site (Hussey 1976:404-405).



Hypothetical Plan of Fort Vancouver, pre–1836

Figure 1. Expansion of Fort Vancouver. Solid lines represent 1829 to 1836 bastion and improvements. (Hibbs 1987:7)

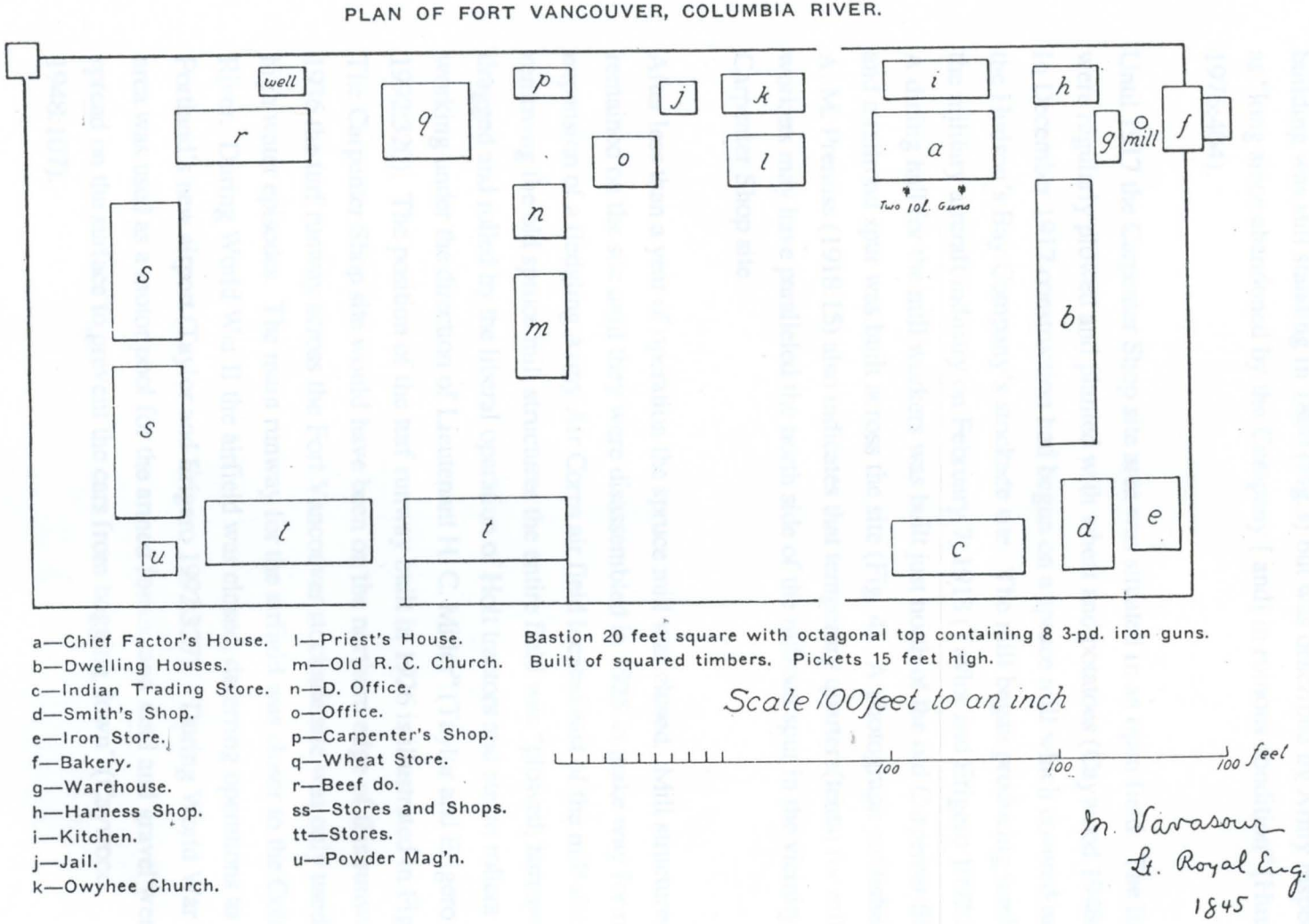


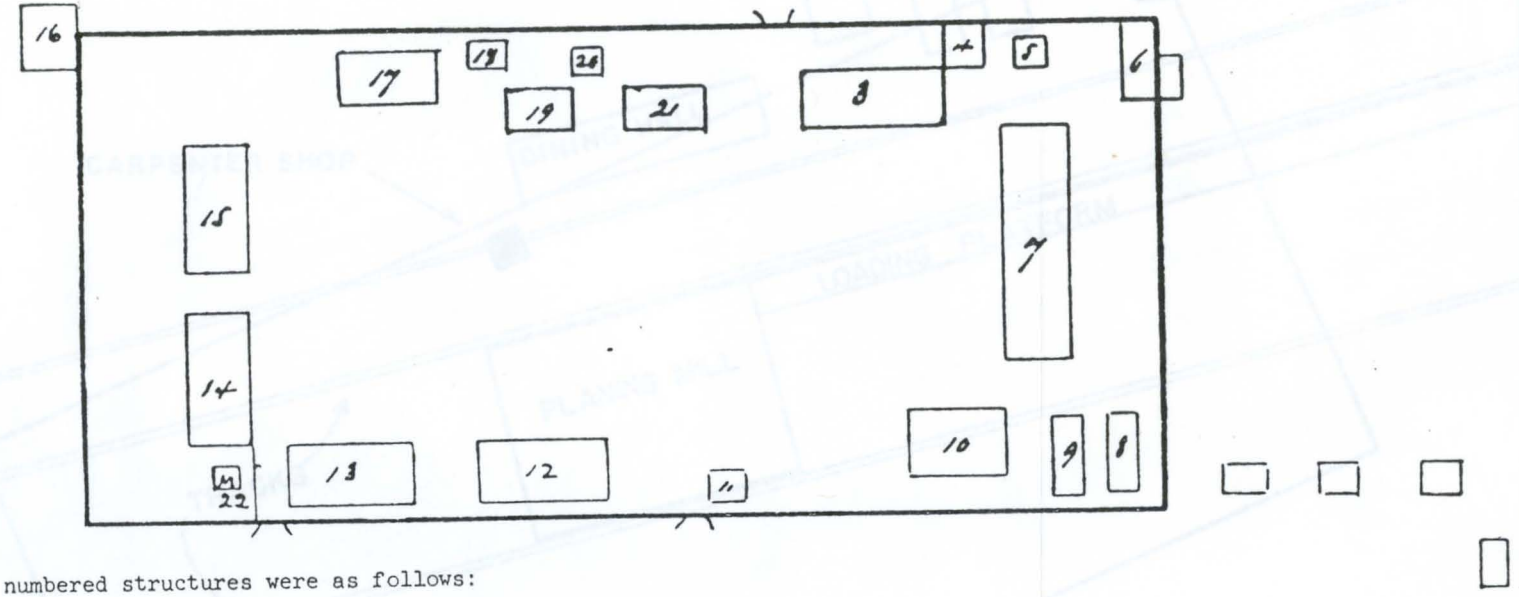
Figure 2. M. Vavasour map of Fort Vancouver drawn in 1845. (Schafer 1909:100)

The last carpenter on the Hudson's Bay Company rolls at Fort Vancouver retired in November 1851. The fate of the Carpenter Shop during the 1850s is unclear. The building was still standing in 1860 (Fig.3) but was described by Army inspectors as "long since abandoned by the Company [and] in ruinous condition" (Hussey 1976:404).

Until 1917 the Carpenter Shop site area was situated in an open field. The fields were regularly plowed and planted with wheat and potatoes (Caywood 1948:107). In December 1917 construction had begun on a spruce mill which covered most of the Hudson's Bay Company's stockade site. The mill began producing lumber for the military aircraft industry on February 7, 1918 (Taylor and Erigero 1992:302). A dining hall for the mill workers was built just north of the old Carpenter Shop site and a railroad spur was built across the site (Fig. 4). A photograph published by A. M. Prentiss (1918:15) also indicates that temporary quarters(tents) for mill workers may have paralleled the north side of the railroad spur in the vicinity of the Carpenter Shop site.

After less than a year of operation the spruce mill was closed. Mill structures remained on the site until they were disassembled in 1925 to make way for runway expansion of a fledgling Army Air Corps air field located east of the mill site. After removing the old spruce mill structures the entire field was "plowed, harrowed, dragged and rolled by the liberal operation of Holt tractors and steam rollers working under the direction of Lieutenant H. C. Miller" (Taylor and Erigero 1992:320). The position of the turf runway built in 1926 is illustrated in Figure 5. The Carpenter Shop site would have been on the northern edge of this runway. By 1936 the turf runway across the Fort Vancouver stockade site was only used during high water episodes. The main runway for the airfield was closer to the Columbia River. During World War II the airfield was closed, deferring operations to Portland's new airport (Taylor and Erigero 1992:327). "During World War II the area was used as a motor pool for the armed forces, and sand and gravel were spread on the surface to prevent the cars from bogging down" (Caywood 1948:107).

After the war, the airfield was reopened as a municipal airport. The turf runway across the stockade site was reactivated and used until the National Park Service began restoration work on Fort Vancouver in the early 1960s.



The numbered structures were as follows:

3. Governor's House
4. Kitchen (Governor's House)
5. Butcher Shop &c.
6. Bakehouse
7. Quarters for employees
8. Small storehouse
9. Blacksmith shop
10. Fur house
11. Porter's lodge
12,13,14. Three large storehouses
15. H. B. Company's store
16. Bastion
17. Granary
18. Carpenter & wheelwright shop
19. Company's office
20. Guard house
21. Dwelling house (formerly Grahame's)
22. Magazine

From Proceedings of a Board of Officers, Fort Vancouver, W. T., June 15, 1860, MS, in A. G. O., Oregon Department, Document File, 212-S-1860, in War Records Division, the National Archives.

Figure 3. United States Army map of H.B.C. post, June 15, 1865.
(Hussey 1972:322 PlateXXX)

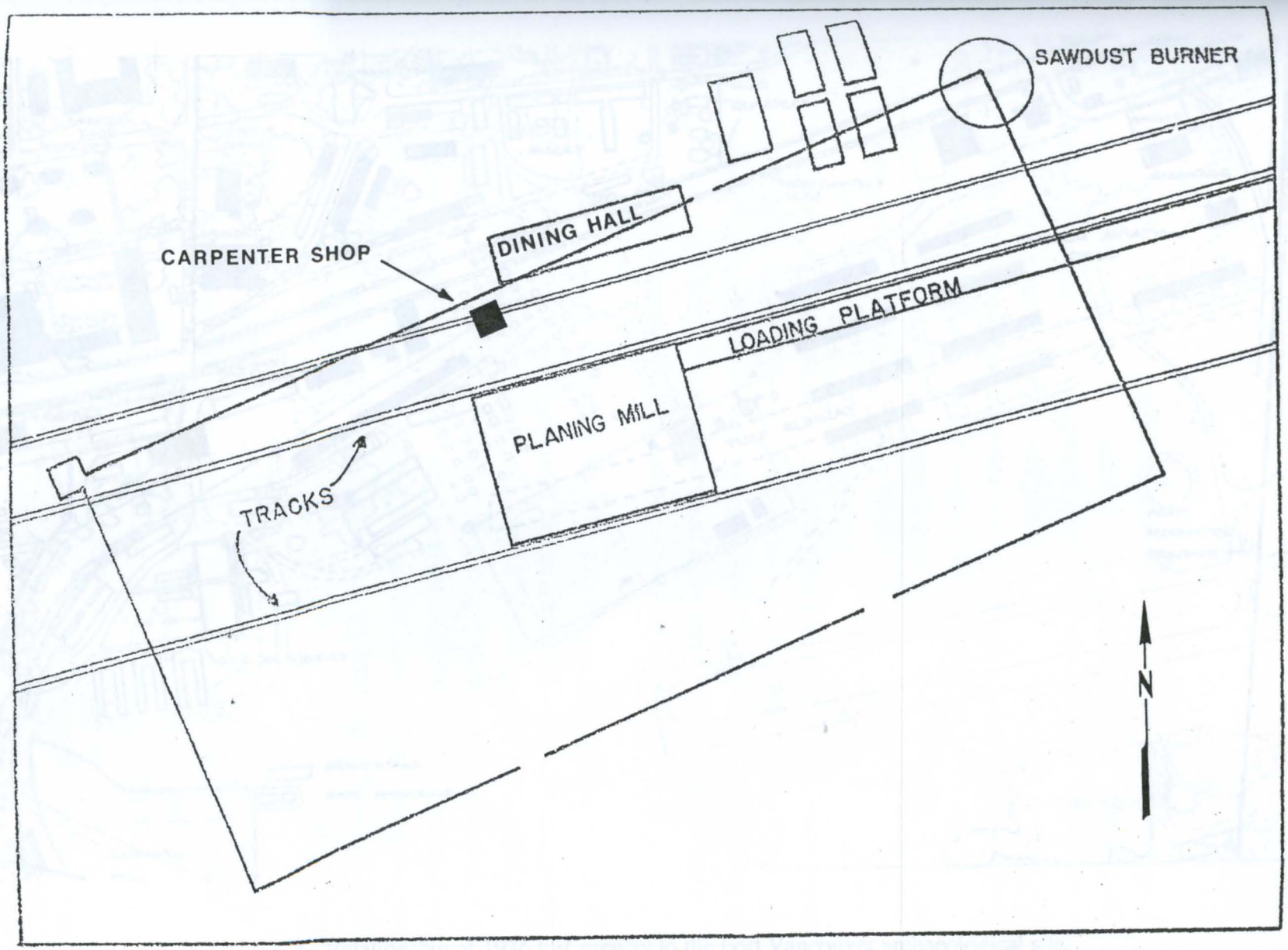


Figure 4. Layout of 1918 spruce mill over Fort Vancouver stockade outline.
(Caywood 1955:5)

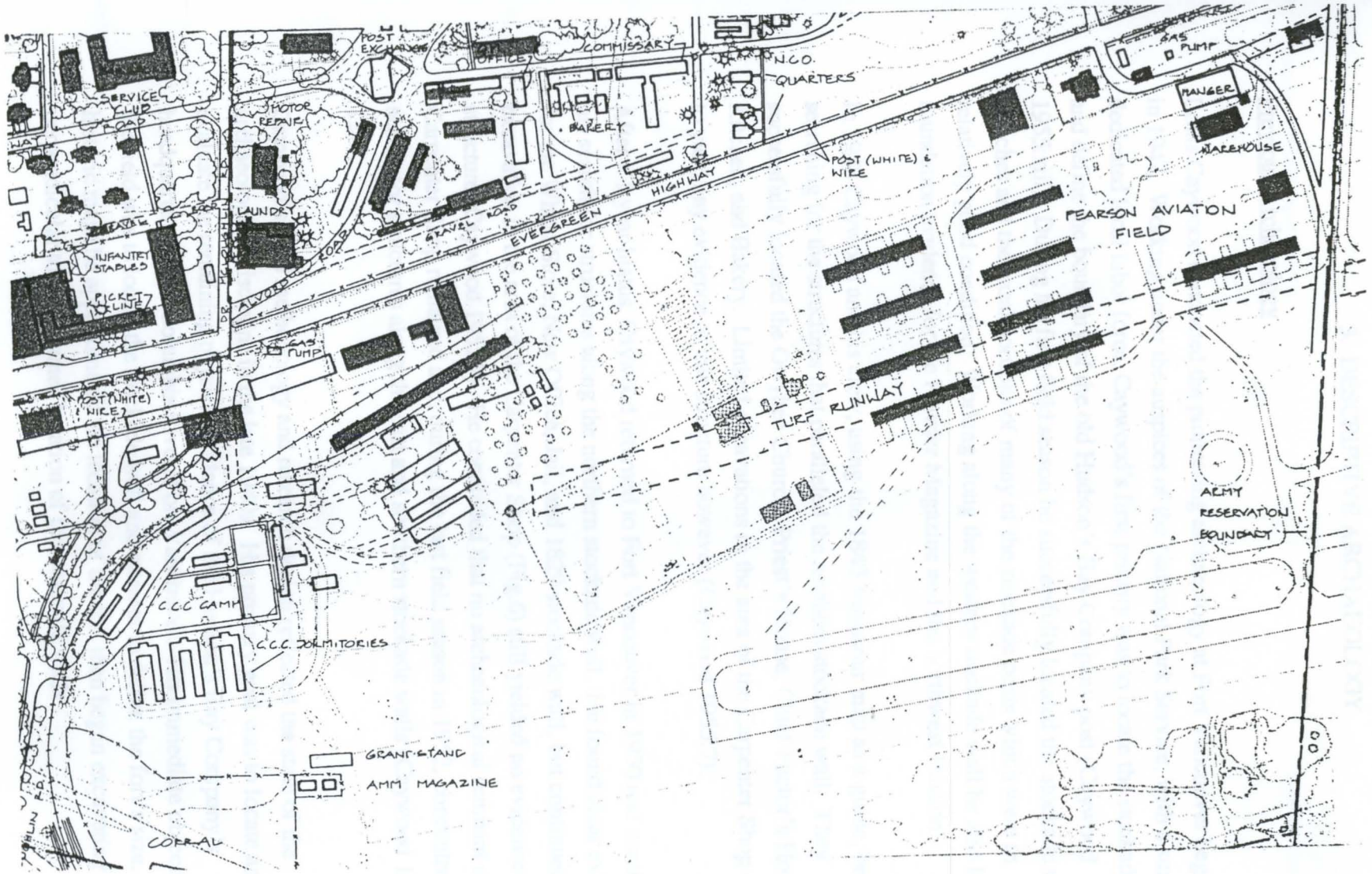


Figure 5. Relationship of 1936 turf runway to the Fort Vancouver archaeological site.
(Taylor and Erigero 1992:336)

3. DESCRIPTIVE ARCHAEOLOGY

Previous Archaeology

Louis Caywood conducted the pioneering archaeology at Fort Vancouver beginning in 1947. Working under the auspices of the National Park Service, with a small but dedicated local labor force, Caywood's first priority was to locate the stockade walls and define the boundary of the old Hudson's Bay Company post (Caywood 1955:xiii). During his first field season he successfully located the stockade wall trenches and the basal portions of many of the stockade posts which were in relatively good condition. Working along the western stockade wall he also located foundation evidence for the Powder Magazine and the northwest Bastion.

In 1948 Caywood and his crew, using the 1845 Vavasour map as a guide, began searching for the structures that paralleled the northern stockade wall. They successfully located the Owyhee Church, Priest's House, Chief Factor's House, Kitchen, and Bakery. Limited excavations in the area of the Carpenter Shop failed to yield any evidence of this structure however (Caywood 1955:7).

After a 1 year hiatus, Caywood returned to Fort Vancouver in 1950 and continued his search for structures along the northern stockade wall. He found clear evidence for the Wheat Store, New Office, Jail, and 1829 stockade wall, but continued excavation in the area of the Carpenter Shop (Fig.6) still yielded no evidence of this structure (Caywood 1955:7). He concluded that no archaeological remnant of the Carpenter Shop remained and, during the last field season in 1952, concentrated his search for structures along the east and southern stockade walls (Caywood 1955:7, 12).

Caywood's field methodology and research design reflected the state of the archaeological discipline in the late 1940s. His primary goal was to locate and evaluate the remaining physical evidence of the Hudson's Bay Company's headquarters on the Columbia River, Fort Vancouver. His immediate objective in the field was to locate the stockade wall and attempt to define the fort's size. Using historic maps he approximated the location of the fort then began excavating trenches perpendicular to the assumed location of the stockade walls

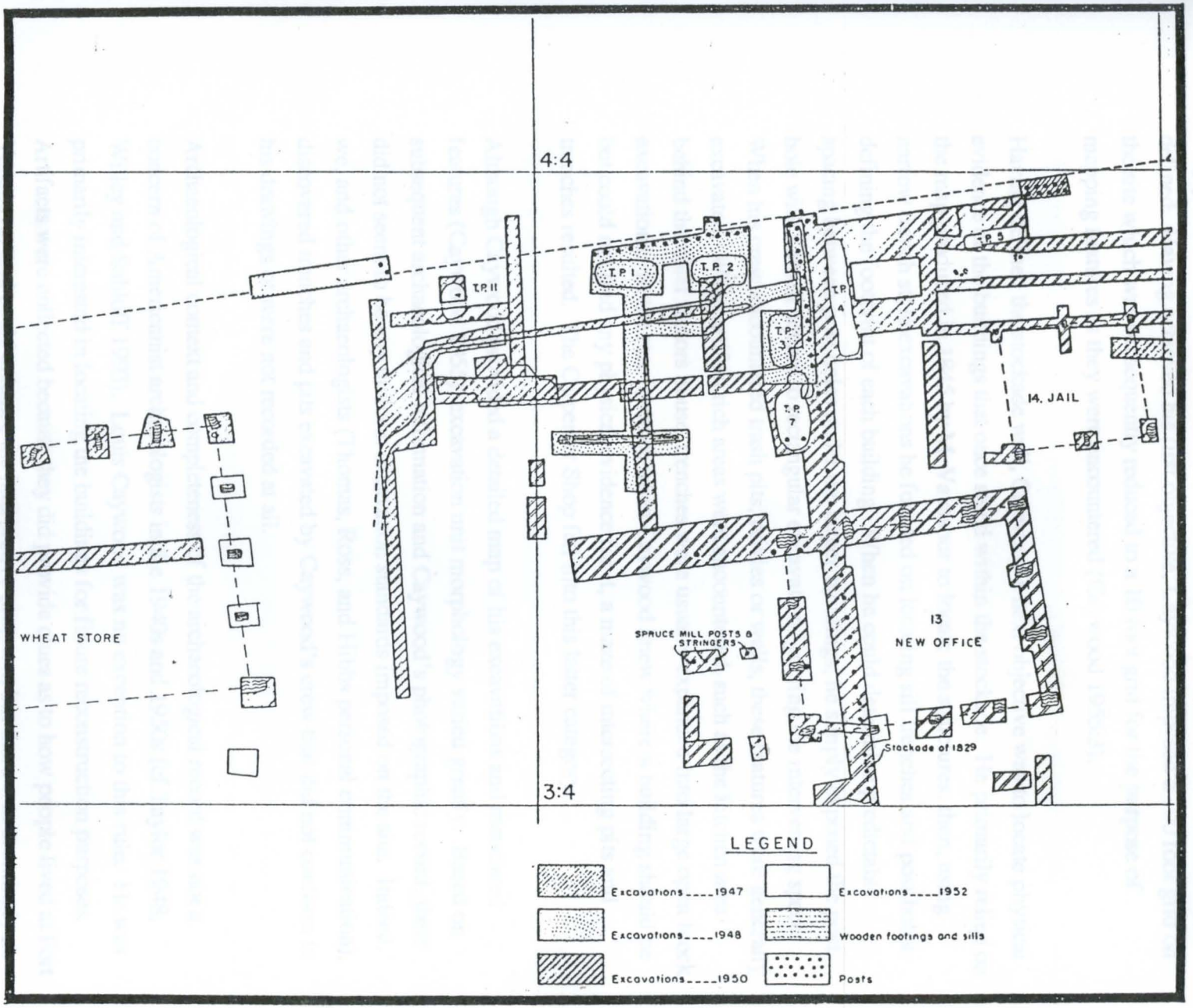


Figure 6. Caywood's 1948 and 1950 excavations in the vicinity of the Carpenter Shop. (Caywood 1955: Sheet 8)

until he intersected a wall trench. Having located a stockade wall footing trench he simply followed the feature until the location and size of the stockade was clearly defined. Having achieved his first objective, Caywood imposed a 100 foot grid on the site which was subsequently reduced to a 10 foot grid for the purpose of mapping features as they were encountered (Caywood 1955:3).

Having defined the stockade wall, Caywood's next objective was to locate physical evidence of the buildings that once stood within the stockade. He primarily relied on the map produced in 1845 by M. Vavasour to locate the structures, then, using narrow trench style excavations he focused on locating sill trenches and post holes defining the footprint of each building. When he could determine predictable spacing between post holes under the larger buildings, he simply exposed the post hole with a small square to rectangular excavation ignoring the intervening space. When his crew encountered trash pits, privies or wells, these features were generally excavated. When artifact rich areas were encountered, such as the kitchen area behind the chief factors house, trenches were usually expanded into large open block excavations. In the rare instance when Caywood knew where a building should be but could not find any physical evidence for it, a maze of intersecting pits and trenches resulted. The Carpenter Shop fell into this latter category.

Although Caywood provided a detailed map of his excavations and associated features (Caywood 1955), excavation unit morphology varied greatly. Based on subsequent archaeological information and Caywood's photographic record, there did not seem to be any uniform excavation standards imposed on the site. Indeed, we, and other archaeologists (Thomas, Ross, and Hibbs personal communication), discovered trenches and pits excavated by Caywood's crew that did not conform to his drawings or were not recorded at all.

Archaeological context and completeness of the archaeological record was not a concern of Americanist archaeologists in the 1940s and 1950s (cf.Taylor 1948, Willey and Sabloff 1993). Louis Caywood was no exception to this rule. He was primarily interested in locating the buildings for future reconstruction purposes. Artifacts were collected because they did provide clues as to how people lived at Fort Vancouver and could enhance the interpretive program, but there was seemingly no interest in completeness of the record or understanding human culture through the material world that they left behind. Contextual information rarely went beyond

associations with particular buildings or features. Also, Caywood only collected artifacts associated with the Hudson's Bay Company occupation and screens were rarely used by the archaeologists. Caywood's sample was entirely dependent on the knowledge, perception, and alertness of each of his volunteer field crew members.

Caywood(1955:3) noted that excavation trenches were left open until the end of each field season. Mechanical equipment was then used to backfill the trenches. The only exception to this practice was on the turf runway where the excavations had to be backfilled soon after they were completed since the runway was still active. This practice has resulted in another form of contextual problem. Since there were a lot of artifacts in the backdirt piles, these artifacts went back into the trench fill. On the old runway we might be able to assume that the artifacts in Caywood's backfill came from that general area of the site even though specific context is lost. The material in the mechanically filled trenches could have come from almost any part of the site being excavated that particular field season. There is also the likelihood that surface material not associated with Caywood's excavations became incorporated into the backfill during mechanical filling. These problems will be discussed relative to the Carpenter Shop excavations later in this report.

Although extensive excavations have been undertaken at Fort Vancouver and the adjacent Kanaka Village site since Caywood's pioneering work, no further attempts have been made to locate the Carpenter Shop until the inception of this project in 1994.

Field Methodology: 1994

Over 2 decades ago the National Park Service demarcated the location of the structures within the reconstructed stockade walls at Fort Vancouver using concrete curbing to outline the footprint of the buildings then infilling the footprint with blacktop. The location and size of each building was based on the 1845 M. Vavasour map which Caywood found to be quite accurate. Subsequent excavations have also demonstrated that the interpretive curbing conforms well to the actual placement of the 1845 era structures. As a consequence, locating the 1845 assumed site of the Carpenter Shop was not a problem. The curbing and blacktop were still in place.

Our objective during the 1994 field season was quite simple. Try to succeed where Caywood had failed. Locate the Carpenter Shop. Our approach to this problem was to excavate a 6 by 10 meter block positioned to encompass the east half of the Carpenter Shop building site and the contiguous ground surface around the exterior of this half of the structure. National Park Service personnel removed the blacktop cap over the site prior to our arrival. The concrete curb was left in place in order to maintain a visual reference for site visitors (Fig. 7). Our excavation was oriented to the same grid used at the site since the 1970s (Fig. 8). Our 100N/100E pin was situated exactly 100 meters from the bench mark near the "Indian Trade Store".

Excavation proceeded in 10cm arbitrary levels. Horizontal stratigraphy was mapped and photographed at the completion of each level in order to insure accurate documentation of Caywood's trenches, HBC surfaces and features, and post-HBC surfaces and features. Matrix from the above surfaces and features was excavated separately within each level. An attempt was made to map all artifacts recovered from intact surfaces *in situ.* Cultural material contained in Caywood's trenches was collected by 1 meter square, 10 centimeter level. Matrix from Caywood's trenches was screened through 1/4 inch mesh hardware cloth. The matrix from undisturbed surfaces and features was screened through 1/8 inch mesh hardware cloth. All cultural material recovered from the excavation was retained and cataloged regardless of age or context. Excavations were terminated at a depth ranging from 70 centimeters to 1 meter below the surface (Fig. 9). Excavations were considered complete only when culturally sterile deposits were reached.

By the end of the 6 week field season at Fort Vancouver 13,823 artifacts had been recovered. All artifacts were cleaned and cataloged in the archaeological field laboratory or back at the archaeology laboratory at Oregon State University. Catalog numbers were placed directly on the majority of artifacts. The site number 45CL300 was written on each artifact followed by a dash and a catalog number assigned based on the chronological order of recovery of individual specimens. These catalog numbers correspond to the archaeological field catalog where exact provenience data can be obtained. Once all the artifacts were cataloged, all specimens which could be attributed to the pre-1860 Hudson's Bay Company occupation were cataloged according to the FOVA system established by the curator of collections at the Fort Vancouver National Historic Site. A total of 2,346 artifacts were cataloged into the FOVA system.

Figure 7. Carpenter Shop site after blacktop cap removed just prior to excavation

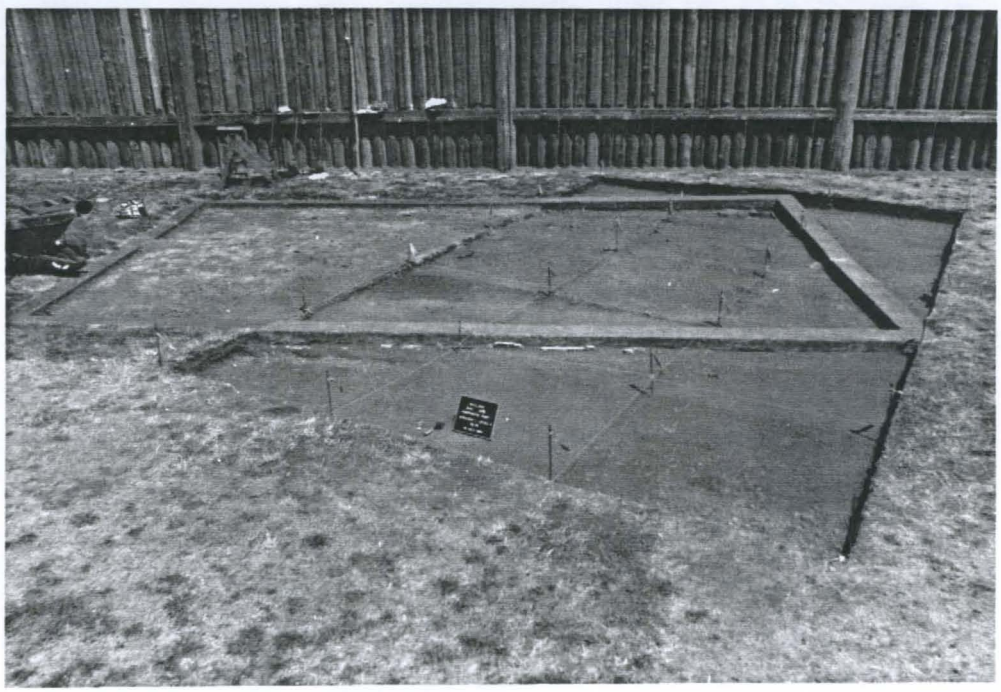


Figure 8. Position of 1994 excavation block relative to the Carpenter Shop site.

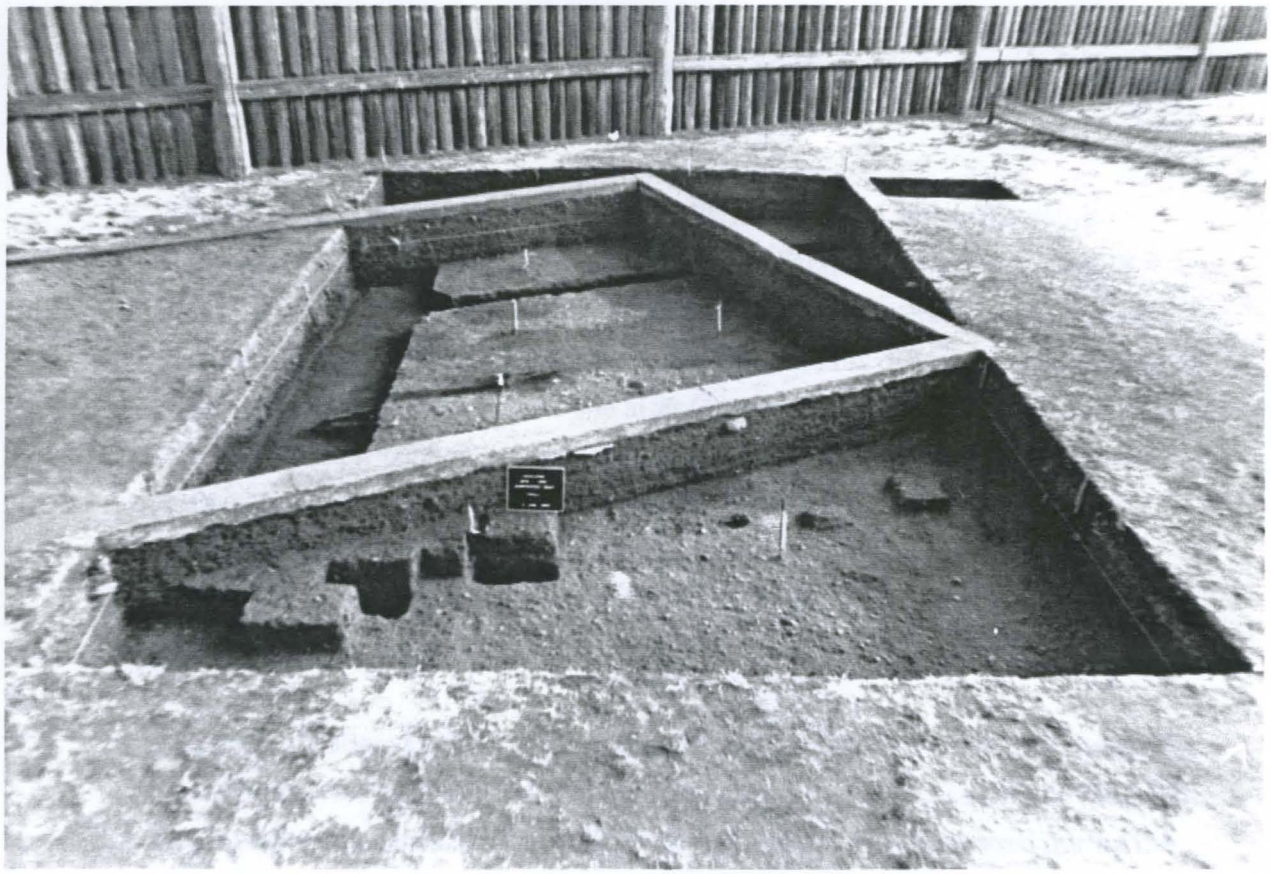


Figure 9. Completed excavations at the Carpenter Shop site, Fort Vancouver.

Recovered Data

We anticipated significant disturbance from the 1948 and 1950 Caywood excavations in the vicinity of the Carpenter Shop and this proved to be the case. We had also anticipated that Caywood's excavations might be more extensive in the Carpenter Shop area than his maps indicated (Hibbs and Thomas, personal communication). This also proved to be true. What we did not anticipate was the extent of post-1860 disturbance to this portion of the site between Caywood's excavation trenches.

We encountered a geologically and culturally mixed strata across the entire excavation block extending from the surface to a depth ranging from 20cm (8 inches) to 30cm (12 inches) below the surface. Cultural material in this mixed deposit ranged in age from the 1990s to the 1830s. This disturbed zone seemed to be attributable to activities at the site after Caywood's 1950 field season. This upper mixed deposit probably represents sediment and cultural material spread across the surface during Caywood's 1950 backfilling operation as well as subsequent National Park Service activities including ground leveling and blacktop pad construction. Some of the cultural material can certainly be attributed to almost 4 decades of park visitors as well.

At a depth of 30cm (12 inches) to 40cm (16 inches) below the surface Caywood's excavations were defined (Fig. 10). His trenches extended to a depth of 70cm (28 inches) below the surface. The bulk of the cultural material recovered during the 1994 field season came from Caywood's backfill. Caywood's backfill contained artifacts that dated to the Hudson's Bay Company period right up through the 1940's military occupation of the site. With the exception of the area labeled "intact HBC surface" in the southern extreme of our excavation block (Fig. 10), the remaining ground between Caywood's excavation trenches was culturally sterile. At some point after 1860 the ground surface in the area of the Carpenter Shop had been leveled to a point just below the original HBC surface. The only remaining feature on this remnant surface may be the lower "shadow" of a temporary railroad spur built across the site in 1918 (Figs. 10 and 11). If this feature is correctly identified as a remnant of a temporary railroad spur, the ground must first have been leveled in 1918 creating a level surface on which to place the ties. A second phase of leveling activity must have occurred after 1925 when the spruce mill was demolished

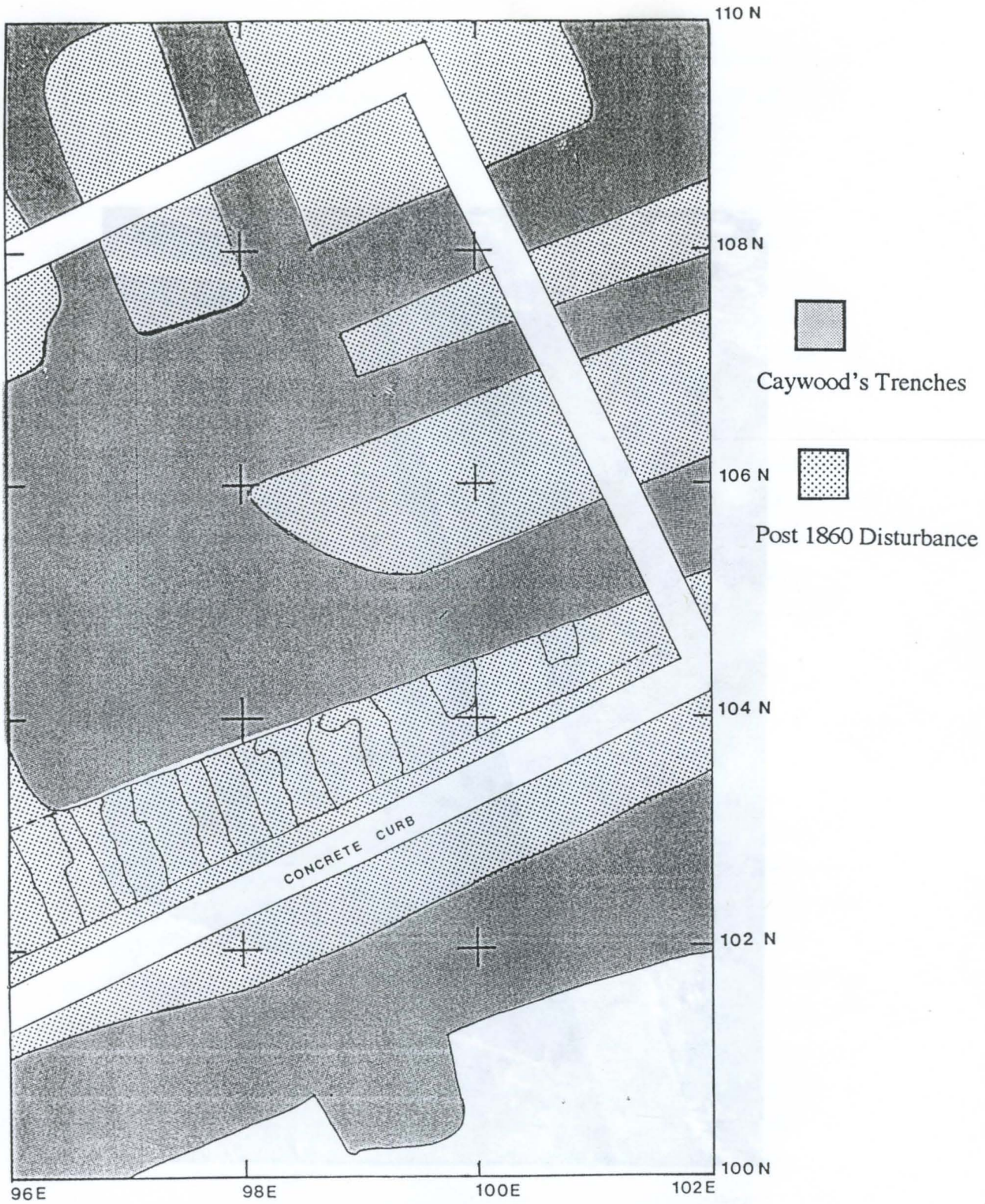


Figure 10. Location of Caywood's trenches and post-1860 disturbances at the site of the 1844 to 1860 Carpenter Shop, Fort Vancouver.

Figure 11. Remnant of possible 1918 railroad spur feature to the left (north) of the concrete curb.

and the turf runway built since only the bottom inch of the tie impressions remain. The second leveling episode removed any remnant of the surface scatter attributed to the spruce mill.

Only 3 features which could be attributed to the Hudson's Bay Company occupation of the site were identified in the 1994 excavation block (Fig.12). The first, and largest, of these features was a remnant of the Hudson's Bay Company surface which survived the post-1860 ground leveling episodes. We encountered this surface in the extreme southern end of our excavation block. The surface was first observed approximately 20cm (8 inches) below the modern surface and extended to a depth of about 35cm (14 inches) below the surface. This remnant HBC surface would have probably been situated a few feet south of the front of the Carpenter Shop (assuming the shop faced south) and may include data on the exterior activities which may have been associated with the shop. Time did not permit further exploration of this surface. The associated artifact assemblage will be discussed below.

A row of post holes was encountered to the north of the remnant HBC surface (Fig.12). These post holes were roughly parallel to the long axis of the south wall of the Carpenter Shop and in the approximate location of the south wall. Two of the smaller post holes (numbers 2 and 5) are not associated with the HBC occupation. They are filled with pea gravel which was also found associated with the railroad spur feature. As such, these 2 post holes probably postdate 1918. The remaining post holes are problematical. All but post holes 4 and 6 were first noted below the terminal depth of Caywood's trench. The alignment of his excavation trench indicates that he may have been following this set of post holes. There is however no mention of these features in his report or on his maps. We have to assume that Caywood's crew missed these features. As a consequence, we do not know their surface of origin or whether they contained datable cultural material. Post holes 4 and 6 were truncated by the ditch dug to build the concrete curb in the 1960s, so their surface of origin is also unknown. The only cultural material associated with the feature were 2 very small fragments of transfer printed ceramic which could not be identified. One ceramic fragment was found in post hole number 9 and the other in post hole number 7. Certainly this is not enough data to associate the feature with the HBC occupation but, on the other hand , no post-1860 debris was found in any of the larger post holes. The post holes were also smaller and set too close together

to conform to other building support features previously described at Fort Vancouver. Whether or not these post holes were associated with the Carpenter Shop and how they functionally did or did not relate to that structure will require further excavations.

A third feature that we attribute to the Hudson's Bay Company occupation of the site was found and noted by Caywood in 1950. The feature is a ditch that Caywood believed began at Trash Pit 2 and extended for some distance to the west before turning 90 degrees to the south (Fig.6). Caywood's crew followed this ditch through the Carpenter Shop site area but did not excavate all of the fill out of the feature. We encountered the ditch at the base of Caywood's trench and removed the remaining 10 to 12cm (5 inches) of fill. The few cultural items in the ditch were attributable to the HBC occupation of the site. Several fragments of English brick, 3 hand wrought square nail shanks, a fragment of Cottage ware and a fragment of Mocha ware were found in the bottom of the ditch. If the alignment of the ditch is as Caywood described (Fig.6), the feature is not a sill trench associated with the Carpenter Shop but may well have been a drainage ditch to keep surface water out of the shop. If it were a drainage ditch, it would have been position just to the north and upslope from the Carpenter Shop. The ditch after fill removal is illustrated in Figure 13 and a 1 by 2 meter (3 by 6 feet) extension of our block excavation exposed the ditch continuing to the east (Fig.14).

As previously noted, 13,823 artifacts were recovered from the Carpenter Shop site during the 1994 field season. Of this relatively large sample of material culture, only 2,346 specimens were determined to be associated with the Hudson's Bay Company occupation of the site and only 413 artifacts were found in relatively undisturbed context. Ninety seven percent (13,410) of the total number of recovered artifacts were in a highly disturbed context. Most of the artifacts in this latter set were contained in the backfill of Caywood's trenches. The vast majority of artifacts in the backfill were post-1860 artifacts which were of no interest to Caywood and his crew. The pre-1860 material culture remaining in the backfill is generally highly fragmented, visually uninteresting, or small specimens easily missed or discarded by a crew digging quickly without the use of screens.

Although all cultural material encountered during the course of excavations was retained and cataloged by the Oregon State University archaeological team, the

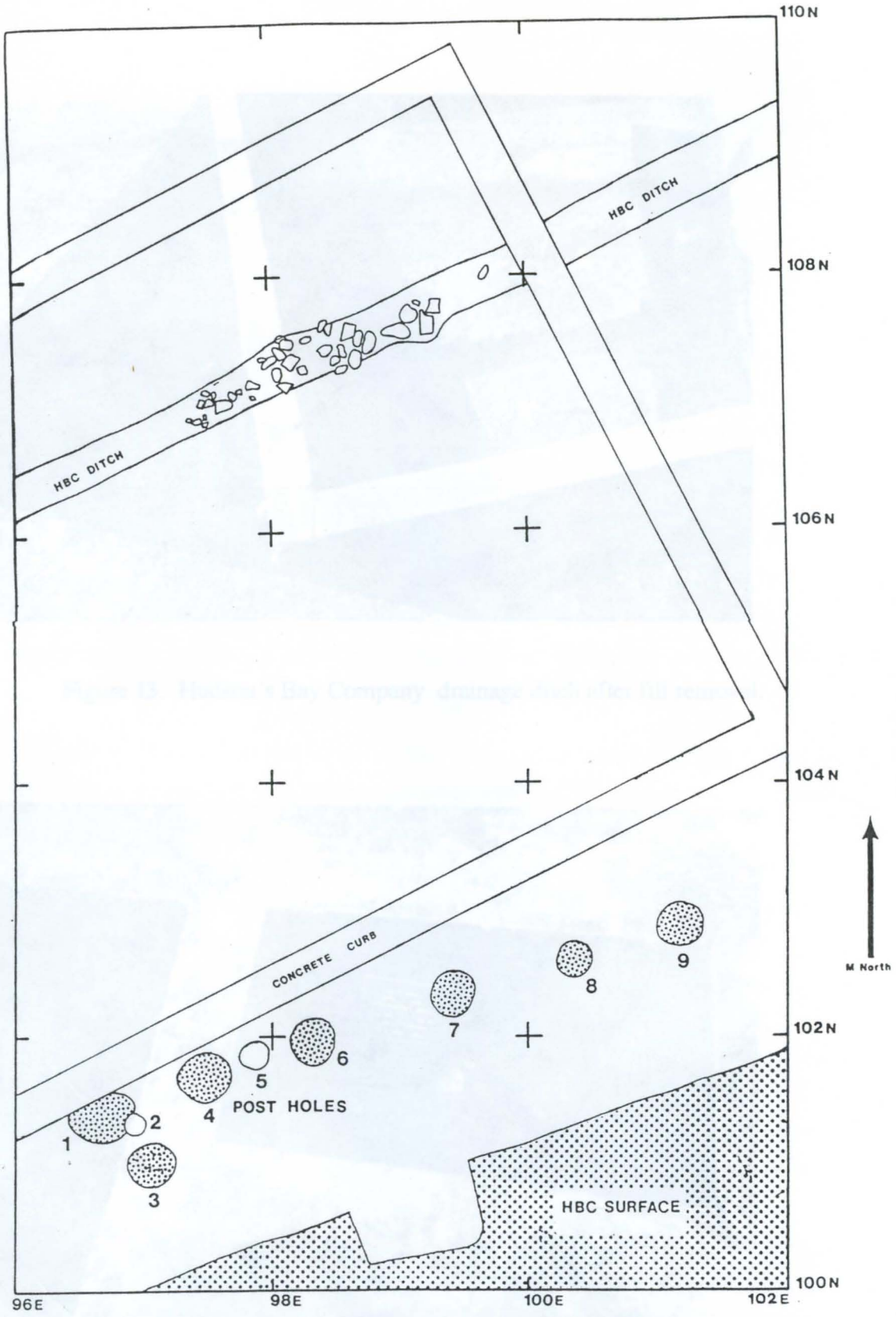


Figure 12.. Hudson's Bay Company features encountered during the 1994 excavation of the Carpenter Shop site.

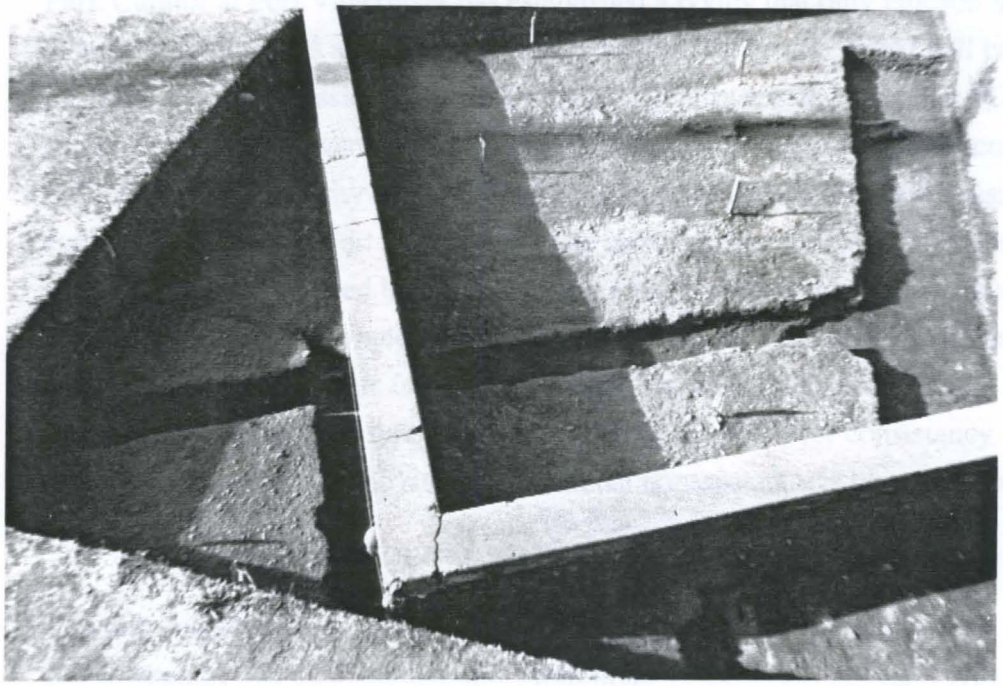


Figure 13. Hudson's Bay Company drainage ditch after fill removal.

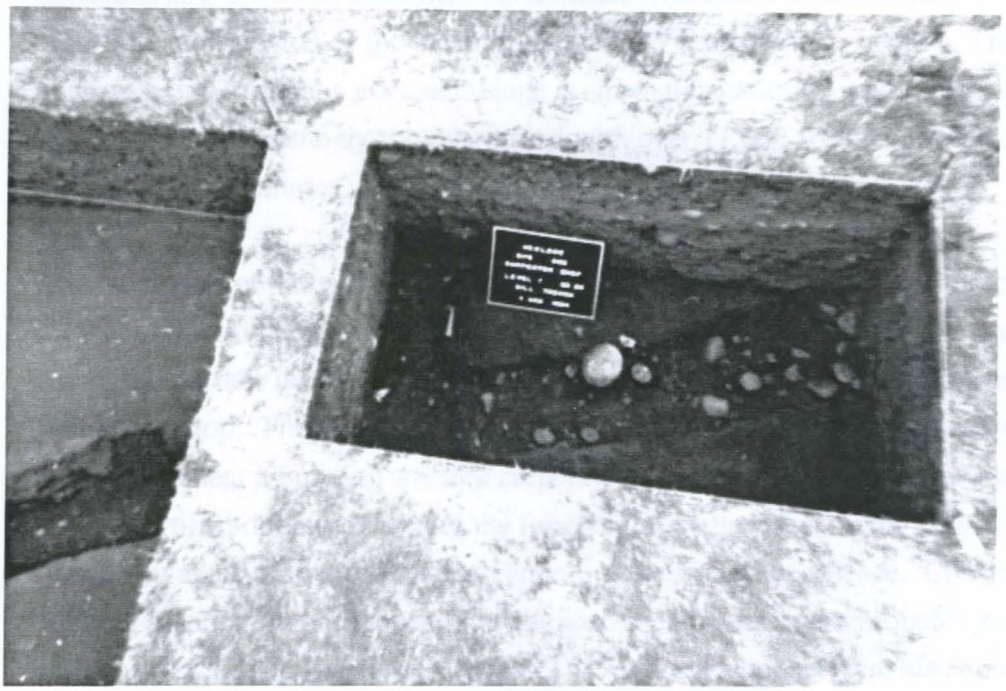


Figure 14. Continuation of HBC drainage ditch to the east of 1994 block excavations.

Park Curator at Fort Vancouver has established a policy that only Hudson's Bay Company era artifacts and late 19th century materials in good context will be entered into their FOVA accession system. Twentieth Century artifacts were not FOVA cataloged. Since we were unable to use context as a criteria to decide the cultural affiliation of the majority of our artifact sample, we relied on previous classification systems developed at Fort Vancouver. The classification system of Fort Vancouver material goods developed by Lester Ross in 1976 served as the basis for our determination of what would be accessioned into the FOVA system. The list of FOVA cataloged materials from the 1994 field season is presented in Table 1. Although the descriptive typology is based on Ross (1976) for consistency with previous archaeology at the site, the functional nomenclature is based on Sprague 1980.

Ceramic data based on Sussman (1979) and Chapman (1993) are presented in Table 2. No attempt was made to determine minimum vessel count or vessel type since the fragments were so small. Ceramic fragment counts on Table 2 are included on Table 1.

Considering the fact that the Carpenter Shop site area has been leveled on at least 2 occasions and Caywood backfilled his trenches with mechanical equipment in 1948 and 1950, a discussion of the meaning of the FOVA assemblage is mute. The Hudson's Bay Company era assemblage is an amalgamation of materials from various parts of the site thoroughly mixed with over 11,000 artifacts from the late 19th and 20th Centuries.

An assemblage of 413 artifacts was found on a relatively intact surface in the southern extremities of our 1994 excavation block (Table 3) (Fig.12). As previously noted, this surface may have been an exterior work area situated near the front of the Carpenter Shop. The assemblage is dominated by construction materials as would be expected near a building site or a carpenter shop. One fragmented saw blade is the only artifact directly related to the function of the nearby building (Fig.15). Small fragments of bottle glass and ceramic vessels litter the surface. Considering the long hours of work performed by the carpenters, meals were probably eaten in and around the shop and vessels broken. Clay pipe fragments were also common items on the surface, which comes as no surprise. The 413 artifacts listed on Table 3 are included on Table 1 and Table 4.

Table 1. A functional typology of FOVA cataloged artifacts recovered from the 1994 Carpenter Shop excavations.

Category	Subcategory	Type	N Sample
Personal Items			
	Clothing		
		Buckle, plain, single tongue, iron	1
		Button back, iron, impressed with "Extra Plating / Quallty"	1
		Button, amber glass, faceted	1
		Button black glass, 5 cut facets	1
		Button, black glass, depressed center, fragmented	1
		Button, yellow metal, round with impressed "netting"	2
		Button, yellow metal, round with laurel and star pattern	1
		Grommet, iron	1
		Grommet fragments, yellow metal	2
		Grommet, yellow metal	1
	Adornment		
		Glass beads, drawn, cylindrical:	
		Var. #1003, opaque white	38
		Var. #1004, opaque yellow	13
		Var. #1008, opaque dark brownish red	1
		Var. #1009, translucent white	1
		Var. #1012, opaque dark purple	15
		Var. #1037, transparent red on opaque white	2
		Var. #1040, opaque white on opaque blue	1
		Var. #1042, opaque blue	1
		Var. #1050, opaque black	2
		Var. #1051, opaque brownish red	2
		Var. #1052, opaque amber	1
		Var. #1055, opaque bluish purple	3
		Var. #1056, opaque dark bluish purple	3
		Var. #1062, opaque bluish green	4
		Var. #1063, translucent blue	1
		Var. #1071, transparent red	3
		Var. #1073, opaque grayish blue	2
		Var. #1075, transparent blue	1
		Var. #1076, opaque yellowish green	2
		Var. #1081, opaque dark purplish blue	1
		Glass beads, multi-sided cylindrical with ground facets, drawn:	
		Var. #1018, transparent purple on translucent purple	1
		Var. #1032, opaque purple on opaque dark purple	1
		Glass bead, barrel shaped, wound:	
		Var. #2052, transparent purplish blue	1
		Glass bead, cylindrical, wound:	
		Var. #2043, opaque greenish blue	1
		Glass beads, short, monochrome, wound:	
		Var. #2007, transparent purple	1

Table 1. continued

Var. #2027, translucent blue	1
Var. #2033, transparent dark purplish blue	1
Glass beads, short, spherical, wound:	
Var. #2004, transparent blue	1
Var. #2018, translucent blue	1
Var. #2037, opaque blue	1
Glass bead, molded, gray	1
Glass bead fragment, translucent light blue	1
Jade ring, green	1
Indulgences	
Pipe bowl fragments, white kaolin clay	26
Pipe bowl fragment, white kaolin clay, "bert" in circle	1
Pipe bowl fragment, white kaolin clay, fluted	1
Pipe bowl fragment, white clay, "Ford Stepney" impression	1
Pipe bowl fragment, white clay, "Ford, Style 4"	4
Pipe bowl fragment, white clay, "Ford Stepney" solid line imp.	1
Pipe bowl fragment, white clay, "Prince Albert" stamp	1
Pipe bowl fragment, white clay, impressed "TD"	1
Pipe stem fragments, white kaolin clay	100
Pipe stem fragment, carved steatite	1
Recreation	
Jews harp, iron	1
Domestic Items	
Housewares, culinary	
Knife blade, iron	1
Containers, glass	
Amber, body fragments	250
Dark green, base fragments	18
Dark green, body fragments	944
Dark green, lip fragment	12
Dark green, melted	7
Dark green, neck fragments	24
Dark green, neck/shoulder fragments	2
Dark green, shoulder fragments	
Ceramic Flatware and hollow ware	
Transfer printed white earthenware	349
White earthenware, unidentified pressed pattern	8
Cottage ware fragments	5
Mochaware fragments	7
Porcelain fragments, white	7
Redware fragment with white slip	1
Home education, information and business	
Style #92, hand wrought tack heads, yellow metal	8

Table 1. continued

Architecture

Construction materials	
Brick, British fire, fragments	26
Construction hardware	
Bolts, hand wrought, iron:	
Bolt, square stock, round tip, square head, 11 1/2" long	1
Button head bolt	1
Flat headed bolt	1
Headless bolt	2
Hexagonal headed bolts	4
Step bolt, mushroom head	6
Stud bolt	2
Square headed bolt	3
Door escutcheon, hand wrought, iron	1
Door hinge fragment, hand wrought, iron	1
Driven door pintle, hand wrought, iron	1
Nails, hand wrought, iron:	
Style #3, flat formed 'L' head, round stock	1
Style #5, round stock, flat circular head	2
Style #6, flat circular head, round stock, sharp tip	7
Style #9, circular counter sunk head, round stock	1
Style #12, flat circular head, round stock	1
Style #22, formed circular head, round stock, broad head	1
Style #26, square stock, sharp tip	1
Style #27, 'L' head, square stock, tapered shank	3
Style #28, flat 'L' head, square stock	1
Style #29, formed head, square stock, tapered tip	3
Style #30, flat square head, tapered shank, sharp tip	1
Style #32, flat head, square stock	1
Style #33, formed head, square stock	5
Style #34, flat circular head, square stock	1
Style #35, square stock, tapered shank, sharp tip	12
Style #36, formed head, square stock, tapered shank	10
Style #37, square stock, wrought head, tapered shank	4
Style #38, square shank, clasp head, sharp tip	9
Style #39, flat head, sharp tip	16
Style #40, square stock, formed square stock	2
Style #41, sharp tip, square stock, wrought head	10
Style #42, rosette head, sharp tip	33
Style #43, formed head, square shank, sharp tip	1
Style #44, formed head, square stock, sharp tip	.9
Style #46, formed 'L' head, square stock	2
Style #47, formed head, square stock, tapered shank	4
Style #48, spike, formed head, broad tip	1
Style #50, upset diamond head, square stock	4
Style #51, circular upset head, square stock	1
Style #52, upset rosette head, square stock	6
Style #53, rosette head, square stock	2
Style #54, upset head, square stock	1
Style #57, upset rosette head, square stock	2

Table 1. continued

Style #58, upset head, square stock	8
Style #59, upset button head, square stock	4
Style #61, upset head, square stock	2
Style #69, rectangular shank	1
Unknown style, similar to Style #4, w/ eyelet formed tip	1
Unknown style, flat head, square shank, 3/4"	1
Unknown style, formed head, square stock, tapered shank	3
Unknown style, clasp head, square stock, tapered shank	1
Unknown style, bonnet head, square stock	3
Unknown style, formed head, square stock, 90 deg. crimp	1
Unknown style, upset diamond head, square stock	1
Unknown style, spike, square formed head, square stock	3
Unknown style, spike, round formed head, square stock	1
Unknown style, spike, square rosette head, square stock	1
Unknown style, spike, inverted U head, round stock	1
Unknown style, formed square head, round stock	1
Unknown style, rosette head, square stock, broken tip	4
Nails, hand wrought, yellow metal:	
Unknown style, similar to Style #81, flat beveled tip	1
Style #96, square tapered shank, round flat head	1
Nails, machine cut, iron:	
Style #63, headless, cut rectangular shank	1
Style #65, headless, cut rectangular shank	1
Style #69, flat 'T' head, cut rectangular tapering shank	4
Style #70, flat head, cut rectangular shank	24
Style #71, flat head, cut rectangular shank	18
Style #72, flat 'L' head, cut rectangular shank	1
Style #73, diamond head, cut rectangular shank	4
Style #76, upset head, cut rectangular shank	12
Unknown style, cut shank, formed head	1
Unknown style, hand formed flat round head, cut shank	1
Nuts, hand wrought, iron	15
Hexagonal nuts	4
Rectangular nuts	23
Square nuts	4
Screws, hand wrought, iron	20
Spring washers, hand wrought, iron	
Staples, hand wrought	3
Same as Fig. 463a (Ross, 1976), round stock	1
Same as Fig. 463b (Ross, 1976), round stock	
Tacks, hand wrought, iron	1
Style #6, flat circular head	9
Unknown style, button head, round shank	16
Washers, hand wrought, iron	
Personal and domestic transportation	
Vehicles	1
Ferrule fitting for singletree/doubletree horse fitting	1
Hook, circle eight form, hand wrought, iron	12
Rivet, hand wrought iron	1
Rivet, with rove, hand wrought, iron	

Table 1. continued

Commerce and Industry	
Trapping	
Bale seal, lead	1
Possible trap parts, iron	2
Trap part/pintle style strap hinge, hand wrought, iron	1
Manufacturing, industrial fabrication	
Flat bastard file fragment, iron	1
Mortise chisel, hand wrought, crudely made, iron	1
Rove preform, hand wrought, iron	1
Saw blade fragment, iron	1
Transportation	
bundling strap, iron, hand wrought, square stock	1
Group services	
Public safety, military	
Cannon grape shot, 5/8" diameter, iron	2
English style gray gun flint	1
Musket side plate fragrnent, iron	1
Round shot, lead, .44 cal.	1
Round shot, lead, .54 cal.	1
Small lead shot	1
Unknown	
Material, iron	
Band, formed ends, hand wrought, assoc. yellow metal pin	1
Swivel ring, diamond shaped, round stock, hand wrought	1
Formed hand wrought iron fragment	1
Total	**2346**

Table 2. Hudson's Bay Company period ceramics recovered from the 1994 Carpenters Shop excavation.

Pattern	Date Range	Color	N Sample
Alhambra	1848 - 1882	blue transfer	7
B773	1839 - 1847	blue transfer	4
British Flowers	1829 - 1974	blue transfer	40
Broseley	1818 - 1847	blue transfer	2
Byron Groups	post-1833	red-violet transfer	13
Flower Vase	1828 - 20th ctry	blue transfer	15
French (Radiating) Sprigs	1833 - 1847	flow blue	2
Lily	1837 - 20th ctry	blue transfer	22
Royal Gem	1830 - 1850	blue transfer	1
Rural Scene	1850 - 20th ctry	flow blue	9
Watteau	1847 - 1861	blue transfer	3
Willow	1780 - 20th ctry	blue transfer	4
Unidentified		blue transfer	86
Unidentified		flow blue	141
Unidentified Pressed Pattern		white earthenware	8
Hand painted Cottage ware			5
Mocha ware			7
Porcelain		white	7
Total Fragments			**376**

Table 3. A functional typology of artifacts found in the undisturbed portion of the 1994 Carpenter Shop excavations.

Category	Subcategory	Type	N Sample
Personal items			
	Adornment		
		Bead, cylindrical, wound	
		Var. #1003, opaque white	1
	Indulgences		
		Pipe stem fragments, white clay	13
		Pipe bowl fragments, white clay	3
Domestic items			
	Containers, glass		
		Amber, body fragment	1
		Clear, body fragments	6
		Green, body fragments	41
		Light green, body fragments	2
	Ceramics, flatwares and hollow wares		
		Blue transferwares:	
		Royal Gem, c 1830-1850, Spode/Copeland	1
		Unidentified	9
		Flow blue fragments	2
		Red-violet transferwares:	
		Byron Groups, c post 1833, Spode	2
		White earthenware fragments	18
		White earthenware, burned	1
		Hand painted cottage ware	1
		White porcelain fragments	3
		Stoneware fragment	1
Architecture			
	Construction materials		
		Brick fragments, red	32
		Glass fragments, flat, clear	128
		Glass tragment, burned, flat, clear	1
		Glass fragment, flat, frosted	1
	Construction hardware		
		Driven door pintle, hand wrought, iron	1
		Hand wrought nails, iron:	
		Style #35, square stock, tapered shank	1
		Style #36, formed head, square stock	2
		Style #39, flat head, sharp tip	2
		Style #42, rosette head, sharp tip	3
		Style #46, formed 'L' head, square stock	1

Table 3. continued.

Style #58, upset head, square stock	1
Too fragmented to determine style	6
Hand wrought nails, yellow metal:	
Style #96, round, flat head, square stock	1
Machine cut nails, iron:	
Style #65, headless, cut rectangular shank	1
Style #70, flat head, cut rectangular shank	4
Too fragmented to determine style	75
Wire drawn nails, iron	17
Fixed heating	
Coal fragments	2
Commerce and industry	
Manufacturing, industrial	
Saw blade fragment, iron	1
Unknown Function	
Material, iron	
Handle or strap	1
Unidentified iron fragments	19
Material, plastic	
Plastic fragment, red	1
Material, rock	
Cryptocrystalline silica flakes	2
Material, wood	
Charcoal fragments	2
Charcoal fragments, bagged, too many to count	1
Wood fragments	2
Total	**413**

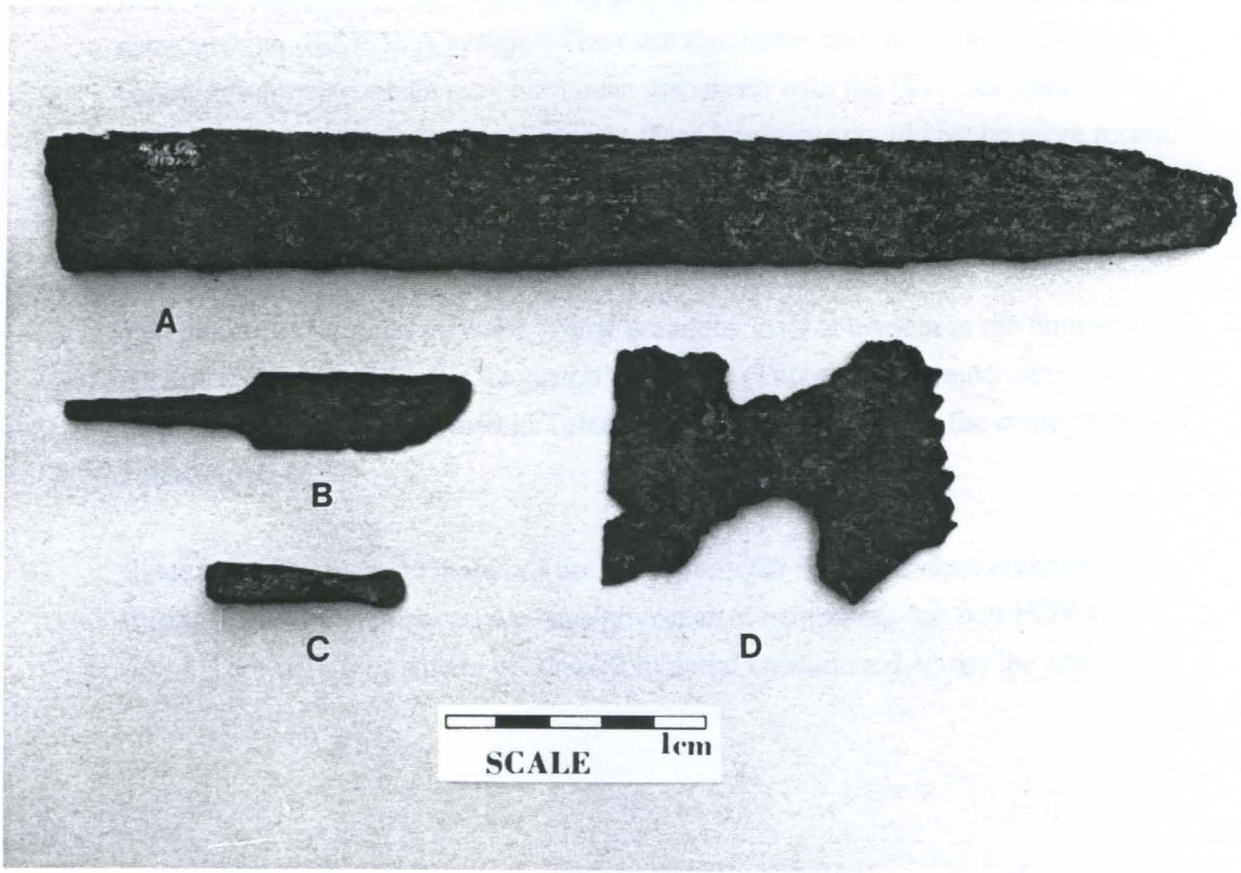


Figure 15. Selected metal artifacts from the Carpenter Shop site.
A - B File Fragments
C Unknown Brass Object
D Hand Saw Fragment

Ninety seven percent of the cultural remains from the Carpenter Shop area could not be linked with the Hudson's Bay Company occupation either due to contextual ambiguity or manufacture dates after 1860. This entire assemblage of 11,477 objects was recovered from Caywood's backfill or the mixed surface deposits. Like the majority of the FOVA cataloged assemblage, there is no meaningful context for these artifacts (Table 4).

Some of the specimens in the non-FOVA cataloged assemblage, like the hand wrought square nail fragments, are from the HBC occupation but fragmented nails have not traditionally been retained by previous archaeological projects and are not cataloged into the FOVA system. There are also items such as white earthenware ceramic fragments which may have been associated with the HBC occupation but without adequate contextual information these fragments could also be more recent. In situations of chronological ambiguity, artifacts were placed in the non-FOVA assemblage.

The presence of a nearby World War II era motor pool is evident in the number of car and truck parts found in Caywood's backdirt (Table 5). The auto parts numerical data is incorporated in Table 4. Table 5 simply details the contents of this subassemblage.

Since non-HBC cultural materials are rarely reported in the previous archaeological literature at Fort Vancouver, we have no means of comparing our non-FOVA assemblage with frequencies or types of material encountered across the site.

Table 4. Non-FOVA cataloged artifacts recovered from the 1994 Carpenter Shop excavation.

Category	Subcategory	Type	N Sample
Personal Items			
	Clothing		
		Button, iron	1
		Button, iron, fragmented	1
		Button, wood	1
		Button, yellow metal, fragmented	2
		Grommet fragments, yellow metal	1
		Jean rivet, yellow metal	3
		Textile fragments, types unknown	24
	Adornment		
		Clock or watch gear, iron	1
		Clock or watch gear, yellow metal	1
		Ornamental badge, iron, "Salute the Flag"	1
		Ornamental badge, yellow metal, Amencan Flag	1
		Pin-on name tag protector, iron	1
		Watch battery	1
	Body ritual and grooming		
		Mirrored glass, flat fragments	52
	Medical and health		
		Band aid, plastic	1
		Clear glass bottle, "Dr. King's New Life Pills"	1
	Indulgences		
		Cigarette filters	19
	Recreation		
		Cartridge case, .22 rimfire	1
Domestic Items			
	Furnishings, furniture		
		Swiveling wheel mount for rolling chair, iron	1
		Upholstry snap, iron	1
		Shelf bracket, iron	1
	Furnishings, drapery		
		Window shade bracket arm, iron	1
	Housewares, gustatory		
		Butter knife blade	1
	Housewares, portable energy		
		Battery cores	2

Table 4. continued

Containers, glass	
Black, body fragment	1
Cobalt blue, body fragments	5
Burned glass fragments, black	4
Clear, body fragments	365
Clear, melted fragments	67
Light green, body fragments	47
Light green, melted	5
Light green, stopper style bottle with silvered coating	1
White milk-glass fragments	2
Containers, metal	
Friction type can lid, tin	1
Can seam fragments, tin	12
Threaded lid to Mason jar, iron	1
Ceramic flatware and hollow ware	
White earthenware fragements	347
Burned white earthenware fragments	10
Grey stoneware fragments	7
Salt glazed stoneware fragments	27
Stoneware fragments, weathered glaze	3
White porcelain fragments	24
Food	
Bone fragments	154
Teeth	3
Mullosk shell fragments	3
Seed/pits	6
Housewares, home education, information and business	
Blue chalk fragments	4
Paper clip wire, iron	2
Pencil fragments, wood/graphite	3
Red chalk fragment	1
Stapler base, iron	1
Tack heads, iron	2
Sewing	
Pin, steel	2
Household maintenance	
Hack saw blade fragments, iron	3
Shovel handle, iron	1
Architecture	
Construction materials	
Brick fragments, red	423
Chalk/mortar fragments	43
Concrete fragments	8

Table 4. continued

Glass, clear flat, fragments	2644
Tile, red clay, fragments	26
White frosted glass fragments, flat	3
Construction hardware	
Angle, iron	1
Bolts, iron	103
Bracket, iron	1
Decorative door hinge 'nob'	1
Door stop, iron	1
Door hinge fragment, iron	1
Hinge plate, yellow metal	1
Hook catch for door	1
Lock latch receiver, iron	3
Lock latch receiver, "Yale", iron	1
Nails, hand wrought, iron, too fragmented to identify	293
Nails, machine cut, iron, too fragmented to identify	1262
Nails, wire drawn, iron	1632
Fence staples, iron	7
Nuts, iron	51
Nut, large, sheared	1
Locking wing nut, iron	1
Wing nut, large, iron	1
Washers, iron	140
Screws, iron	300
Plumbing	
Close pipe nipple, 3/4" diameter	1
Decorative pipe fitting, chromed steel	1
Non-threaded pipe, 1/2" diameter	1
Threaded pipe, steel, long	1
Threaded pipe, steel, 3/4" diameter	1
Threaded pipe, steel, l " diameter	1
Threaded pipe plug, steel, 3/4" diameter	1
Threaded end, pipe fitting, steel	1
Fixed illumination and power	
Electrical box 'punch' hole circles, iron	5
Electrical connector, iron	1
Electric light bulb base fragments, yellow metal	2
Electrical on/off toggle switch strap, iron	2
Electrical switch box side, iron	1
Electrical wire strap, iron	3
Electrical wire insulation	2
Electrical wire fragments, copper	59
Electrical wire, insulated	1
Flexible electrical wire conduit fragrnents, steel	8
White porcelain electrical insulation tube	1
Fixed heating	
Coal fragments	33
Stove damper, 7" diameter, iron	1

Table 4. continued.

Stove damper arm, 7" long, iron	1
Stove damper, decorative, 3" diameter, iron	1
Personal and domestic transportation, vehicles	
Ferrule for single/double tree	1
Automobile/truck parts (Table 4)	276
Machinary makers plate, "Thor Rotary Iron," aluminum	1
Cast iron gear fragment	1
Keeper washers, aluminum	4
Male-female bolt, copper	1
Commerce and Industry	
Agriculture	
Windrower sickle blades, iron	1
Fishing	
Wire fishing hook, iron	1
Monetary	
Jelferson head nickel, 196 l	1
Lincoln "wheat back" penny, 1936	1
Group Services	
Education	
Slate fragments	12
Education, museums	
Asphalt fragments from carpenter shop pad	36
Military	
30-06 cartridge casing	1
.30-06 5 round stripper clip, iron	1
Knap-sack hooks, brass	2
Military, communication	
Threaded telegraph wire insulator, unknown metal	1
Utilities, transportation	
Machine cut rail-road spike, iron	2
Switch lantern glass fragment, red	1
Ecofacts	
Animal remains	
Bird feather	1
Mouse	1
Human remains	
Toe nail	1

Table 4. continued

Unknowns

Material, ceramic	
Burned/melted ceramic fragrments	3
Material, cotton	
Cotton ball fragment	1
Material, leather	
Leather fragments	13
Material, aluminum	
Alurninum foil fragments	40
Aluminum sheeting	5
Material, iron	
Braided wire fragments	8
Cast iron fragments	86
Chain link	1
Flexible flat band fragments	1437
Flexible flat bands, bagged, too numerous to count	5
Perforated strapping	6
Iron fragrnents covered in battery acid	2
Inflexible flat iron	234
Oval swivel	2
Rings	5
Small guage tubing	2
Springs	7
Triangular swivel	1
Thin corrugated sheet fragments	13
Unidentified iron artifacts	219
Wire fragments	95
Wire mesh fragments	2
Material, lead	
Lead fagments	10
Material, yellow metal	
Chain	1
Sheeting	18
Spring	1
Tubing	5
Unidentified fragments	24
Material, plastic	
Flagging/survey tape	5
Plastic fragments	122
Material, rock	
Agate	1
Cryptocrystalline silica flakes	9
Mica fragments	6

Table 4. continued.

Pumice	3
Fire-cracked rocks	6
Material, rubber	
Rubber fragments	37
Material, vinyl	
Vinyl fragments	22
Material, wood	
Burned root	4
Charcoal fragrments	94
Fiberboard fragments	1
Wood fragments	238
Material, paper	
Paper fragments	2
Paper washer	1
Material, unidentified substance	21
TOTAL	**11,477**

Table 5. Automotive parts recovered from the 1994 Carpenter Shop excavations.

Artifact	Make	N Sample
Dip stick	Jeep	1
Frame member		1
Valve		1
Valve spring		1
Valve spring keeper	Chevrolet	2
Valve guide	Ford	2
Valve guide keeper		3
Carburetor fragments		2
Firewall seal for control cables		2
Firewall Grommet		1
Throttle or choke cable		1
Vacuum line, copper		1
Gas line, copper		2
Brake hose end		2
Rotor		2
Rotor point		1
WICO moveable point		1
Stationary ignition points		8
Condenser		1
Distributor cap fragments		28
Engine thrust main bearing		1
Piston ring fragments		51
Connecting rod	Chevrolet	1
Crankshaft oil slinger	Chevrolet	1
Oil dipper	Chevrolet	1
Outer housing oil seal		1
Rear axle seal		1
Speedometer cable		1
Odometer number roll		3
Bracket, truck bed cover		1
Strap connector		1
Gauge face plate		1
Oil Pressure gauge		1
Temperature sensor		5
Control link		1
Water pump impeller		1
Steering column clamp		1
Steering column support		1
Valve handle		3
Electrical connector		2
Electrical switch		1
Electrical relay (horn)		1
Spark plug fragment		3
Spark plug wire end		1
Battery cable connector		1
Plastic battery casing fragments		6
Engine block soft plug		1
Tie rod end, steering		2
Bearing		2

Table 5. continued.

Grease seal		6
Battery stabilizer wire		1
Clutch or brake operating shaft		1
Pulley wheel, water pump		1
Ignition switch retainer		1
Windshield wiper blade		2
Windshield wiper blade	Jeep	1
Windshield wiper arm		2
Starter switch, floor mount		1
Linkage bolt		1
Stationary distributor point		3
Chrome trim fragment		3
Logo	Chevrolet (late '30s)	1
Tail pipe hanger		1
Tail pipe bracket		1
Door handle part		1
Clip on bracket, sheet metal		1
Throttle cable stop		1
Cotter pin		1
Axle nut		2
Bud type lug nut, inner		1
Bud type lug nut, outer		1
Front engine mount	Chevrolet	1
Steering gear box bushing	Jeep	1
Light bulb base, small		5
Red tail light glass fragments		2
Yellow lens glass fragments		3
Red glass reflector		1
Red glass reflector lens fragments		42
Yellow glass reflector lens fragments		9
Grounding clamp		1
Rubber cap, brake wheel cylinder		1
Brass reducer fitting		1
Star lock washer		1
Switch contact		1
Exhaust manifold ear		1
Exhaust gasket		1
Head gasket fragment		1
Valve cover gasket		1
Body part		1
Fuel pump check valve		1
Truck governor seal		1
Truck governor cover plate		1
Universal joint part	Jeep	1
Brake shoe springs		2
Temperature sensor		1
Nut lock washer	Jeep	1
Total		**276**

4. CONCLUSIONS AND RECOMMENDATIONS

Although a large assemblage of artifacts was recovered from the Carpenter Shop area, this portion of the Fort Vancouver site has been significantly compromised and is of little archaeological value. Surface modifications associated with the 1918 spruce mill construction and demolition, runway construction, and Caywood's extensive exploratory excavations have combined to eliminate any recognizable evidence of the 1844 - 1860 Carpenter Shop.

Caywood's contention that he could find no evidence for the Carpenter Shop structure (Caywood 1955:12) was an accurate assessment. The remnant geological deposits between Caywood's excavations at the shop site are culturally sterile. This indicates that land leveling prior to 1948 may have removed the Hudson's Bay Company surface leaving only a late 19th and 20th century debris scatter with a small mixture of earlier materials for Caywood to find. Unfortunately Caywood does not discuss the material remains he did encounter while searching for the Carpenter Shop. He only mentions that he found no evidence for the structure, i.e. architectural evidence. The question remains as to where all of the cultural material found in his backdirt originated. Was it found in the vicinity of the Carpenter Shop or was it pushed in from another area ? Did the heavy equipment used by Caywood to fill his trenches remove the shallow HBC surface between those trenches during the backfilling operation ? These are questions that, for now, must remain unanswered.

In the extreme southern portion of our excavation we did identify the remnant of a Hudson's Bay Company occupation surface. This surface would have been situated south of the Carpenter Shop and further excavation in this area might provide information on exterior activities associated with the Carpenter Shop, but the area lies beyond the limits of the actual structure. This intact surface may be rather extensive since Caywood did not venture too far from the building sites.

The Hudson's Bay Company era ditch that Caywood excavated in 1950 and that we relocated appears to be a drainage ditch designed to divert surface water around the Carpenter Shop. Since Caywood removed the surface of origin and most of the ditch's fill we were unable to ascertain what the actual function of this feature was or its relationship to the shop. Since Caywood exposed the point of origin and the

routing of this ditch, further archaeological investigation of this feature would not yield enough new information to justify the cost of excavation.

The most intriguing feature located during the 1994 field season which may relate to the Carpenter Shop is a series of 7 post holes which are aligned east-west about where the south wall of the Carpenter Shop would have been (Fig.12). The upper portions of the post holes have been removed by Caywood's excavations and the construction trench of the concrete curb surrounding the blacktop pad over the site. As a consequence, the surface of origin of this feature is unknown. If datable artifacts were encountered in the post hole fill they were not noted or discussed. Indeed, there is no mention in Caywood's report of any post holes observed in this area. The post holes are too close together and possibly too small to be related to post-in-the-ground construction techniques unless the wall was rebuilt and realigned on one or more occasions.

We certainly do not have definitive evidence that the post holes relate to the Carpenter Shop. This is however a question that might warrant further small scale excavations to resolve. Since we left the fill in the post holes and covered them with plastic before backfilling the site, they could be reexposed with relative ease. A trench could be excavated east and west of the limits of the 1994 excavation on the alignment of the feature. The east-west dimension of the feature could be ascertained and a better determination of the age and function of the post holes may be obtained.

This researcher certainly does not believe that excavating the western half of the Carpenter Shop site is going to be any more productive than the results obtained on the eastern half of the assumed location of the structure. With the exception of resolving the question of the post hole feature, no further archaeological inquiry is recommended at the site of the Carpenter Shop.

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