AN ABSTRACT OF THE THESIS OF

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Title: A Settlement Model at the Robert Newell Farmstead (35MA41), French Prairie, Oregon

Abstract approved:

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David R. Brauner

This thesis is based on the excavations of the Robert Newell farmstead (35MA41), excavated in 2002 and 2003 by the Oregon State University Department of Anthropology archaeological field school. Robert Newell lived at this farm from 1843-1854. Major architectural features, including a brick hearth and postholes were discovered at the site. This is the first early historic site excavated with such intact architectural features since the Willamette Mission site found in the 1980s. The data from the excavation also revealed artifacts dating from the 1830s through the mid 1850s. I have hypothesized an occupation prior to 1843, when Robert Newell moved onto the property. Based on this hypothesis, a settlement model has been proposed for the site based on the analysis of the archival and archaeological data. I specifically propose that John Ball, Nathaniel Wyeth's farm workers and William Johnson occupied the site prior to Robert Newell's arrival in 1843.

A Settlement Model at the Robert Newell Farmstead (35MA41), French Prairie, Oregon

by
Mollie Manion

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Chapter 1. Introduction

The focus of this thesis is to generate a settlement history through the examination of the material culture at one domestic site along the Willamette River, near the mouth of Champoeg Creek on French Prairie, known as the Robert Newell Farmstead (35MA41). The Newell site is unique among the early historic sites on French Prairie due to its integrity and depth of deposition. The soil deposits laid down by periodic flooding have preserved the site, which remains intact below the plow zone. Previously recorded and excavated sites on French Prairie have been incorporated within the plow zone, which has destroyed structural evidence and living surfaces. This makes the Newell site the only site of this antiquity with evidence of a domestic structure and intact living surfaces below the plow zone. By analyzing this unique site we get a glimpse at the settlement pattern of an early Euro-American occupation in the Willamette Valley. The settlement pattern can be inferred through the fragments of dishes they ate on, the pipes they smoked for pleasure, the inkbottles they used to write their thoughts down with and the bottles they took medicine from. The archival record left by these people is also explored to support the archaeological data.

The 1843 to 1856 Robert Newell farmstead was situated on the Salem to Oregon City Road near the eastern boundary of the Champoeg town site on the northern edge of French Prairie (Fig. 1 and 2) in what would become Marion County, Oregon. Although illustrated on the 1844 Jesse Applegate

survey of Newell's land claim (Hussey 1967: 196) and a subsequent 1857 Donald Manson land claim map (Hussey 1967: 225), the exact location of Robert Newell's house was not determined until 1996. Dennis Wiley, Champoeg State Park manager, noted a concentration of fragmented ceramic, brick and square nails, while inspecting a recently plowed field east of the historic Champoeg town site. Dr. David Brauner subsequently confirmed that the surface artifacts dated to the period of the Newell occupation and were in the correct location for the Newell house and barn according to the historic maps. Surface artifacts were observed across the crest of an east-west trending natural levee of the Willamette River for a distance of about 100 meters. The artifact scatter seemed to be roughly aligned with the historic Oregon City to Salem wagon road. Artifact frequency decreased rapidly as one descended into a seasonal flood channel of the Willamette River. The north-south dimensions of the site rarely exceeded 20 meters. The heaviest concentration of surface artifacts correlated with a smaller portion of the levee, which exceeded 100 feet in elevation. Mid-nineteenth century domestic and architectural items dominated the surface artifact assemblage. Based on the surface evidence and archival data, the site was recorded as ORMA41 and named the Robert Newell Farmstead Site. The site has recently been renumbered 35MA41.

Research began at the site with noninvasive techniques, including ground penetrating radar and a cesium magnetometer survey, in 1998 and continued with subsurface testing in 2000 (Bell 1998 and McDonald 1998).

The noninvasive testing showed an anomaly, which was confirmed to be brick rubble during the subsurface testing phase. The subsurface testing showed that there was good potential for data recovery and integrity of the Newell farmstead (Cromwell, Stone and Brauner 2000). Excavations were expanded to large block excavations in both the 2002 and 2003 field seasons.

At maximum exposure the block excavations extended over a twelve by eight meter area and a depth exceeding 1 meter. The excavations exposed approximately 3/4 of a domestic structure that included an intact hearth with associated brick rubble, which indicated a fireplace box and oven, as well as the remains of a prepared clay floor. Areas outside of the block excavation were also sampled to test for adjacent exterior activity areas. Nearly 10,000 domestic and architectural artifacts were recovered over the course of the project.

During excavations, evidence appeared that suggested an occupation older than the 1843-1856 Newell farmstead. Further analysis of the artifacts confirmed that older assemblages were present than could be accounted for by Robert Newell and his family. This discovery began a shift from looking at the settlement pattern of one family at the household level to archival research into the settlement history of the site area to identify possible candidates for the earlier occupations. This was an exciting turn of events as many of the specific occupation sites of early settlers near Champoeg Creek are not yet identified.

All of the data recovered at 35MA41 begged the question; can the settlement history of this site be identified through the use of archival

information and archaeological data? This researcher believes that yes, a very good argument can be made for a settlement history with support from archival and archaeological data. While archival records are not specific to exact locations for early settlers, a pattern of consistent descriptions does appear for farms at "the mouth of Champoeg Creek" at "Sandy Camp". The archival information shows that not one, but several potential occupants could account for the earlier assemblages prior to Robert Newell occupying the site. The descriptions of these earlier occupants are not only consistent with the location of 35MA41, but the chronology fits together like a jigsaw puzzle, with one occupant leaving as another appears. The archival data, while not completely conclusive is certainly compelling. The archival data also corresponds to the archaeological assemblages. Several key artifacts and archaeological assemblages can be identified as corresponding to occupants identified in the archival records. I believe that this thesis will demonstrate that the use of archival data along with archaeological data can create a reasonable hypothesis for a long settlement history at 35MA41, giving a much fuller picture of life in the early nineteenth century than either set of data could accomplish alone.

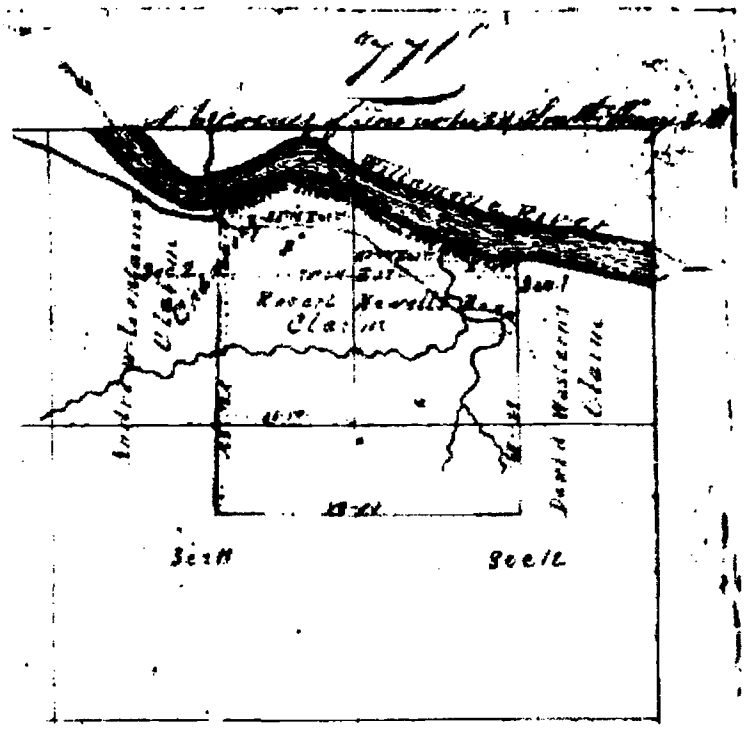


Figure 1. Survey of Newell claim done by Jesse Applegate 1852 (Hussey 1967: 224)

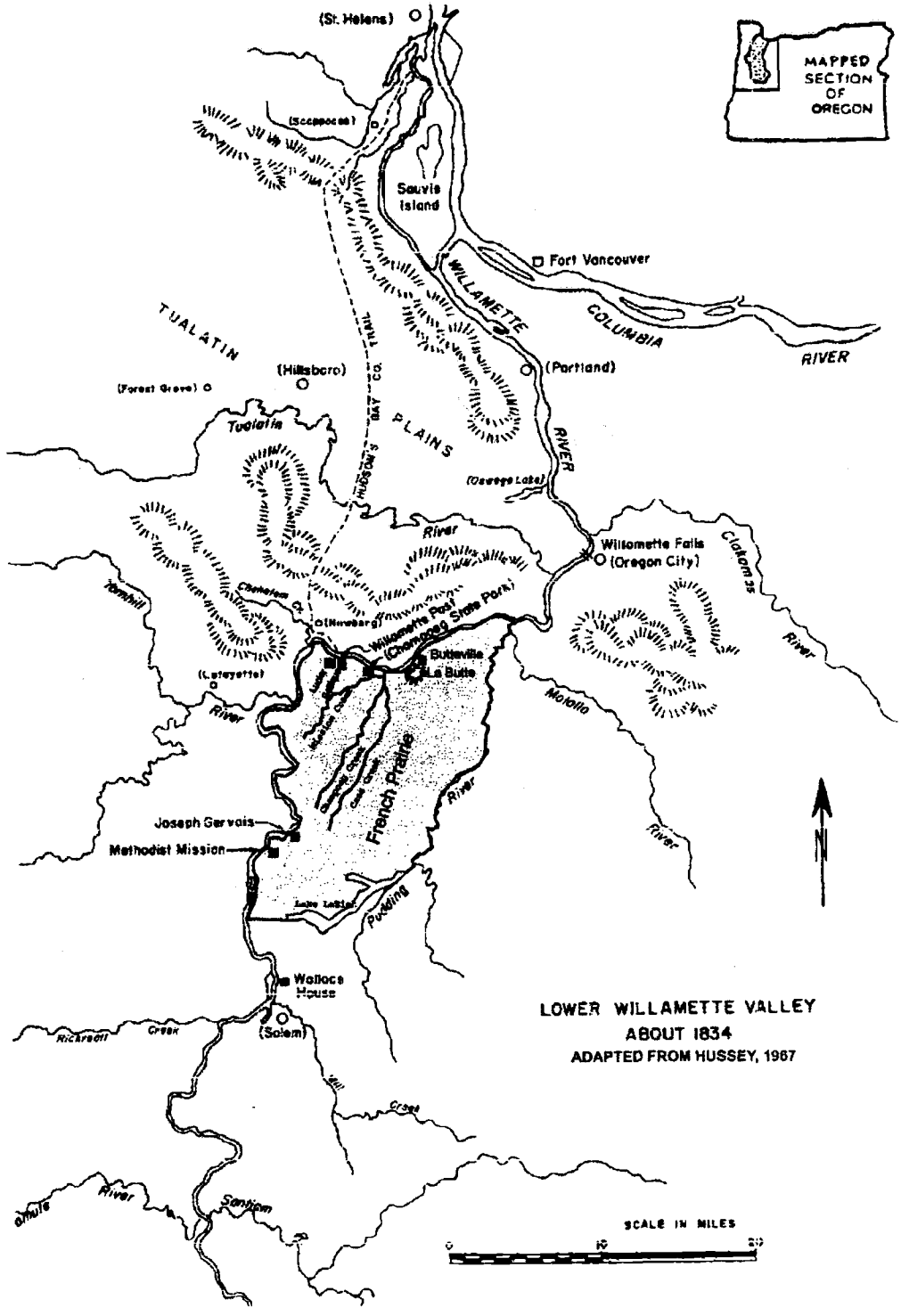


Figure 2. French Prairie and Champoeg in the context of the lower Willamette Valley.

Chapter 2. Natural Setting

Site 35MA41, also known as the Newell farmstead site, lies within the 447.7-acre Champoeg State Park, which is managed by Oregon Parks and Recreation Department. The site lies to the east of the historic town of Champoeg, an archaeological area that is on the National Register of Historic Places. Its legal description is Section 2, Township 4 South, Range 2 West in the Willamette Meridian, Marion County, Oregon. (Cromwell, Stone and Brauner 2000:3).

35MA41 lies on the South Bank of the Willamette River approximately 18 miles above Willamette Falls, at Oregon City (Cromwell, Stone and Brauner 2000:3). The site is located on the first terrace of the river on a natural levy, which is the highest ground on the flood plain (Fig. 3). The area is frequently seasonally flooded around the levy. The elevation of the site ranges from 90 to 100 feet above sea level. Alluvial flats surrounded by rolling hills characterize the area. The climate is modified marine with warm dry summers and wet winters. Average temperatures in January are 55 degrees and in July 80 degrees (Spuelda 1988:1).

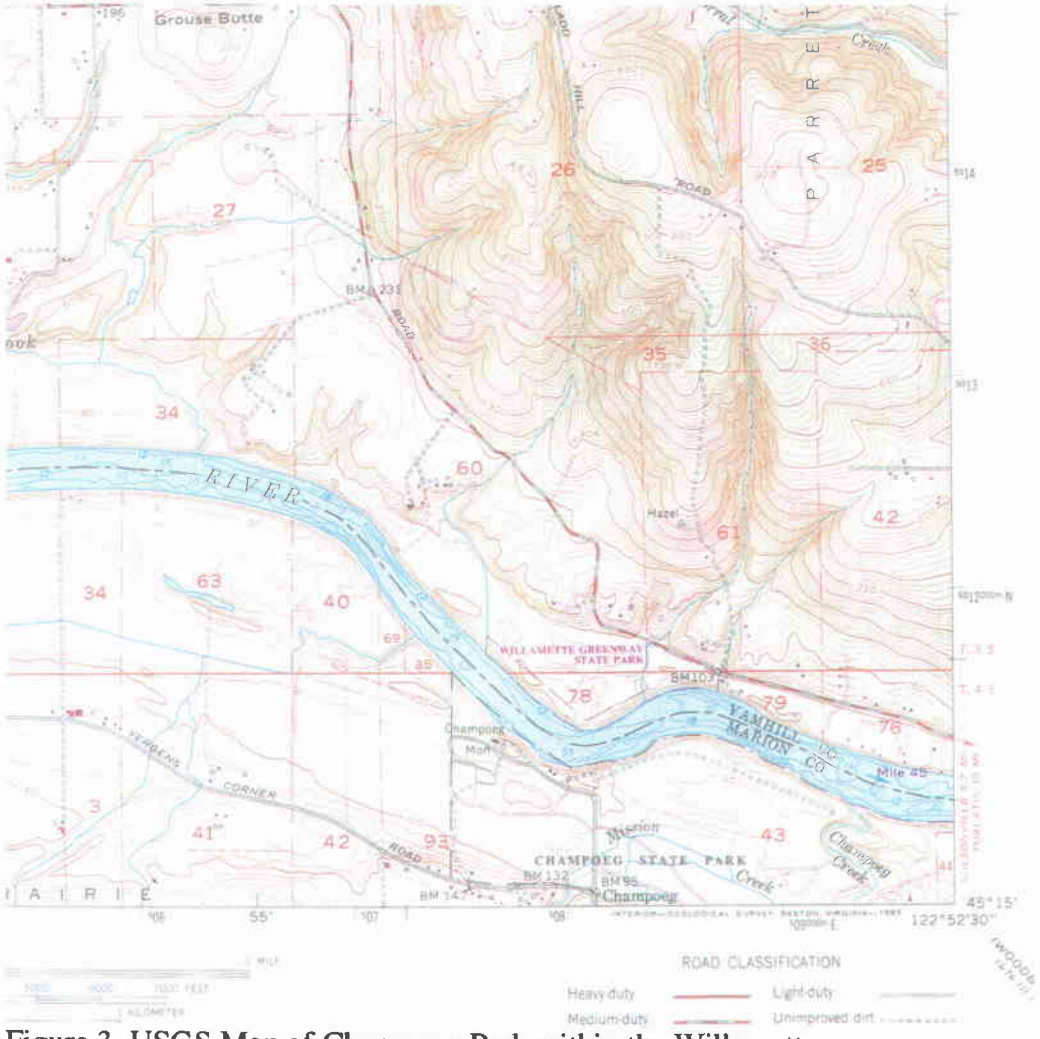


Figure 3. USGS Map of Champoeg Park within the Willamette Valley

The site is on the northern most boundary of the area most commonly known as French Prairie, which is approximately eighteen miles long north to south and fifteen miles east to west. The prairie is bounded on the north by the Willamette River, on the east by the Pudding River and to the south by the historic Lake Labish (now drained) in Marion County (See Fig. 2). French Prairie is well known for its deep alluvial soils, which are extremely fertile (Cromwell, Stone and Brauner 2000: 5).

The vegetation on French Prairie was composed of Oregon white oak (*Quercus garryanna*) interspersed with expansive grassland prairies (Fig. 4). Riparian deciduous forest consisting of Oregon Ash (*Fraxinus latifolia* L.)(Hitchcock 1973:356) and Cottonwood (*Populus trichocarpa* T. &G)(Hitchcock 1973:65) grew along streams and other waterways. The historical environment was culturally managed however. The oak savanna was a result of the native peoples, (Kalapuya) seasonal burning of the prairie landscape (Figure 4)(Hussey 1967: 7). The burning was designed to keep the prairie free of trees, such as the fast growing Douglas Fir (*Psuedotsuga taxifolia*), and encouraged a habitat that supported abundant edible crops such as camas (*Camassia quamash*)(Gunther 1973:24), upon which the Kalapuya were dependent for food as well as for trade (Fig. 5). Camas was roasted in pit ovens, dried and pressed into cakes for storage (Sturtevant 1990:547). Camas grew in such quantity that local

Kalapuyans not only consumed it as a major food source, but also had sufficient quantities to trade excess with other tribes for foods such as salmon (Spuelda 1988: 3). The tarweed plant (spp) also thrived under a fire regime. Other plants of secondary importance were wapato (*Sagitaria spp*)(Hitchcock 1973:559), hazelnuts (*Corylus cornutta* L.)(Hitchcock 1973: 74), berries (*Berberis spp, Ribes spp, Rubes spp, Fragaria spp*)(Gunther 1973: 30,32,34,35-36) and acorns from the white oak (*Quercus garryanna*) (Sturtevant1990: 547). On the surrounding hills oak woodlands were predominate, with coniferous forests at higher altitudes (Sturtevant 1990: 547).

Historically the area was abundant with animal life, which provided food for the Native Kalapuyans as well as acting as an inducement for the fur trapping industry after 1812. Early historical accounts list: Bear (*Ursus americanus*), black and white tail deer (*Odaocoilus spp*), elk (*Evarctos americanus*), fox (*Vulpes fulva*), and beaver (*Castoridae canadensis*). Seasonal flooding created marshes and lakes (Sturtevant 1990: 547), which attracted many migrating water fowl, such as Canadian Geese, swans, cranes, ducks, etc.

The Willamette Valley's rich wildlife population was a major incentive for the fur trapping industry to establish itself in the area (Spuelda 1988: 1). The valley's appeal to settlers was soon to follow. In 1835 Daniel Lee wrote, "Here was a broad, rich bottom, many miles in length, well watered, and supplied with timber, oak, fir, cottonwood,

white maple, white ash, scattered along the borders of its grassy plains, where hundreds of acres were ready for the plough" (Lee and Frost 1973: 125). A new era of occupation was about to begin in the Willamette Valley.

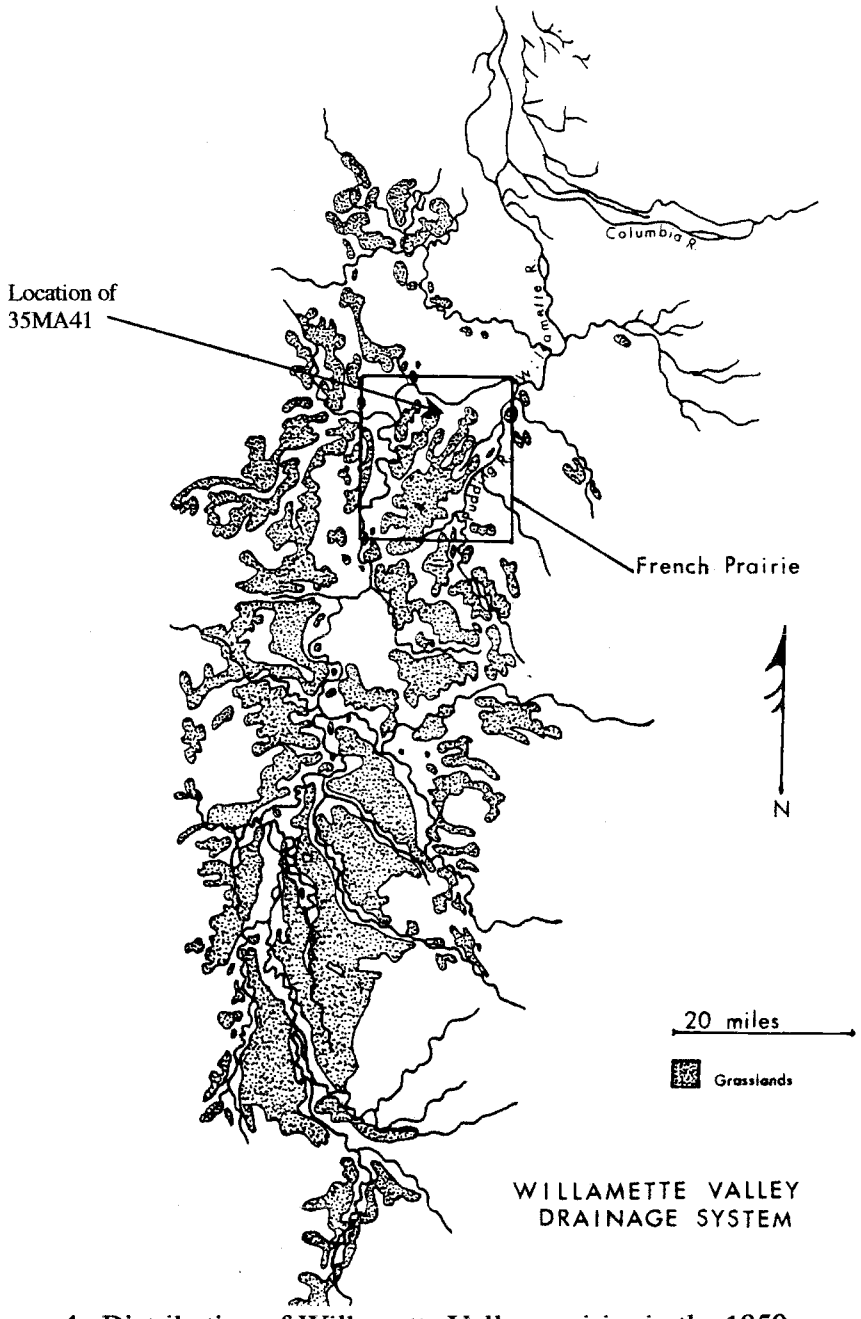


Figure 4. Distribution of Willamette Valley prairies in the 1850s (Bowen 1978:6)

Figure 5. Oak Savannah

Figure 6. Camas in seed with wild rose

Chapter 3. Historical Settings

The early Euro-American presence in the Pacific Northwest revolved around the great fur trade companies who vied for the right to exploit the rich resources of the area. Ultimately the Hudson's Bay Company would prevail in dominating the scene but the first fur company to make an appearance in the Oregon Country was John Jacob Astor's Pacific Fur Company (known as the Astorians), who established Fort Astoria near the mouth of the Columbia River in 1811 (Brauner N.D.). The Astorians ventured into the Willamette Valley on hunting and trapping expeditions and for convenience created a fur trade post, known as Wallace House in 1812, which was located somewhere near what is now Salem. This outpost of the Astoria Company was used for only one season, before it was abandoned.

As a result of the war of 1812 the Astorians sold their interests in the Pacific Northwest in 1813 to the British owned North West Company. The North West Company retained the employees of the Pacific Fur Company, as well as the administrative headquarters at Fort Astoria, which was renamed Fort George (Brauner N.D.). The North West Company soon established a post in the valley in 1813, known as Willamette Post, which is in the heart of what was to become French Prairie. Willamette Post functioned until 1812 as a trading post and as a base camp for hunting and trapping expeditions for Fort George (Brauner N.D.).

In 1821 The North West Company was absorbed by its long time competitor, the Hudson's Bay Company. The Hudson's Bay Company kept

Fort George open, but moved its headquarters farther inland and established Fort Vancouver (Brauner N.D.). At this time the British crown also awarded the Hudson's Bay Company the exclusive rights to trade with the Indians from the Spanish territories in the south to the Russian territories in the north, thereby consolidating the Companies position in the Pacific Northwest as the most dominating economic force in the region (Hussey 1967:32).

During the early fur trade, there were no permanent domestic settlements created in the Willamette Valley. All agricultural activity was confined to the large Forts such as Fort Vancouver. Prior to 1829 the Hudson's Bay Company policy was that any employee upon leaving the employment of the company was to be returned to his place of recruitment, often in Eastern Canada. This sentiment against settlements was succinctly expressed by Chief Factor James Douglas who wrote from Fort Vancouver, "the interests of the Colony and Fur Trade will never harmonize, the former can flourish, only, through the protection of equal laws, the influence of free trade, the accession of respectable inhabitants: in short by establishing a new order of things, while the fur Trade, must suffer by each innovation." (Hussey 1967:44).

However, many of the Hudson's Bay employees were married "according to the custom of the country" (Van Kirk 1983: 28) to native women, and had started families. Being sent back to Canada or Scotland meant either abandoning their wives and children or relocating their families to

unfamiliar surroundings to which the native women had a difficult time adjusting.

However, many of the free trappers that came to the Hudson's Bay Company from the Pacific Fur Company were not under the same contract obligations as the other Hudson's Bay Company employees. They saw the Willamette Valley as a place to raise a family and prosper (Brauner N.D.). They had seen the successful agriculture at Fort Vancouver and experienced the Valley's mild, if wet, winters. In order to divert this group of freemen, Chief Factor McLoughlin sent a trapping expedition to the Umpqua Valley with "the hope that we would find place where we could Employ our Willamette freemen, so as to remove them from a place where they were Anxious to begin to Farm." (Hussey 1967: 45). McLoughlin's efforts were in vain, since it was not just the French-Canadian freemen who were interested in the Willamette Valley.

Americans were very interested in the Oregon Country and the Hudson's Bay Company was about to lose its monopoly on the land. Shortly after sending the freeman to the Umpqua Valley, McLoughlin wrote to the Governor and Committee of the Hudson's Bay Company, "You may Depend that the country along the coast from Puget Sound to San Francisco is much finer country than Canada or New York. The soil is better in many places and the climate is milder and... such country will not remain long with out settlers."(Hussey 1967: 51). McLoughlin was seeing the writing on the wall, and he thought it better to have settlers who were friendly to the Hudson's Bay

Company, not antagonistic towards it, and McLoughlin decides to allow the free trappers to settle down to farming (Hussey 1967: 51). In order to deal with these new farmers McLoughlin set up protocols for approval of settlement. The first was that the men who applied for settlement must be good and honest and *have families*. The second was that they were required to establish farms, not to live with their wives families. The third was that they needed to have at least 50 pounds in credit on the Company books to cover the cost of outfitting their new farms. If approved, McLoughlin would supply them with oxen, wheat seed, plows and other necessities for setting up a farm (Hussey 1967: 51).

These early farmers chose the area around Champoeg for several compelling reasons. The men who decided to settle down to farming were not coming into unknown land. They had been trapping and living in seasonal camps in the area for years. They were familiar with resources, such as open prairie, water, access to the river and timber. Not doubt their native wives were also familiar with the native foods available in the area (Brauner N.D.). The first was that they knew the area well. In fact, Etienne Lucier settled on land right across from where Willamette Post had been (Fig. 7) (Wyeth 1969: 79).

Another important reason that the men chose the Champoeg area was transportation. The Willamette River was navigable from Champoeg all the way to Willamette Falls. However, the river upstream from Champoeg took such a circuitous route with numerous oxbows, that travel became much

quicker on horseback through the open prairies (Hussey 1967: 57). As well as being a navigable section of river, the Champoeg area had fingers of prairie that actually extended down to the river itself. This was important due to the thick and heavy timber on either side of the river. One early settler recounted that Champoeg "was the only point between the Willamette Falls and Salem where a trail or road could be opened to the river without having to cut through a heavy body of timber." (Hussey 1967: 58). Nathaniel Wyeth also noted that he had chosen a farm "with a good mill stream on it and prairie that goes to the river." (Hussey 1967: 70).

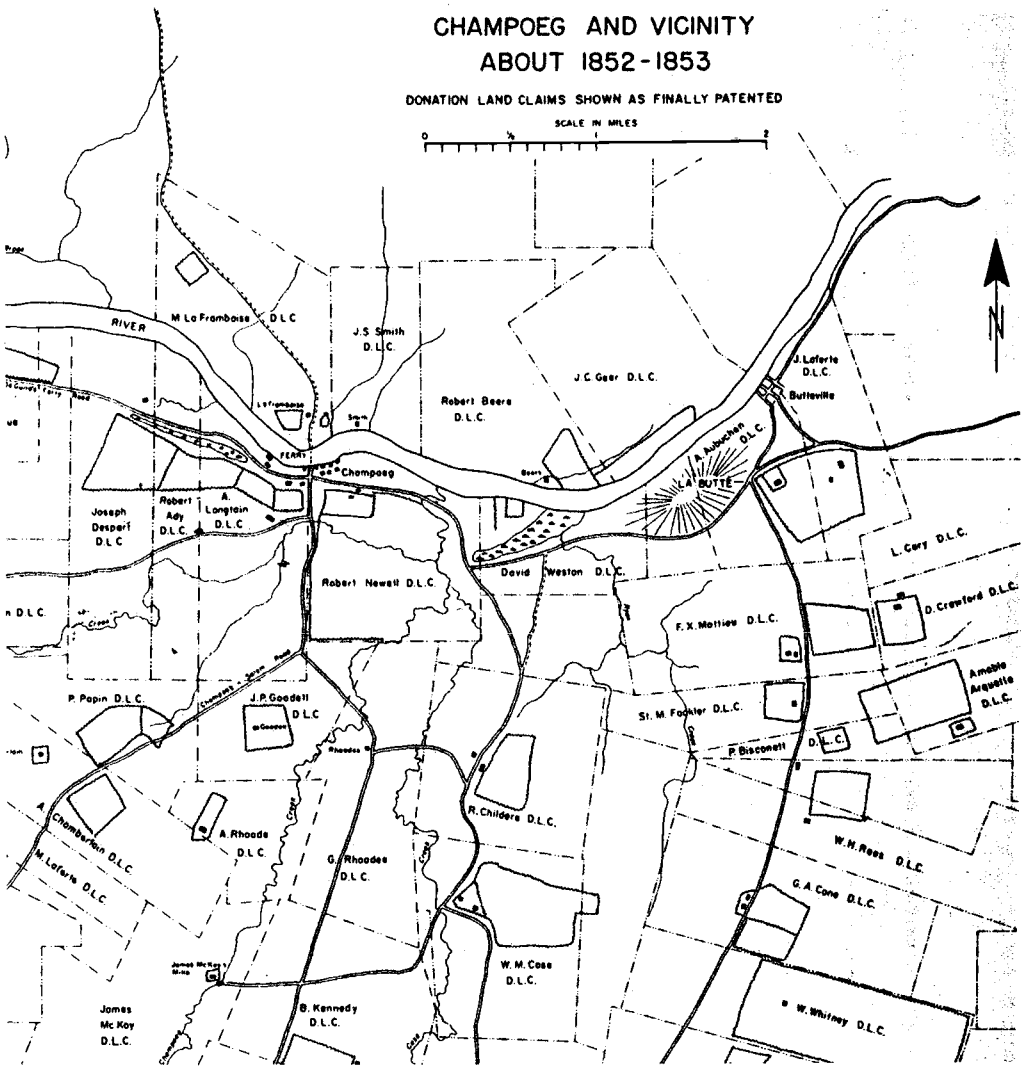


Figure 7. Settlement Map of French Prairie circa 1852-1853 (Hussey 1967:216)

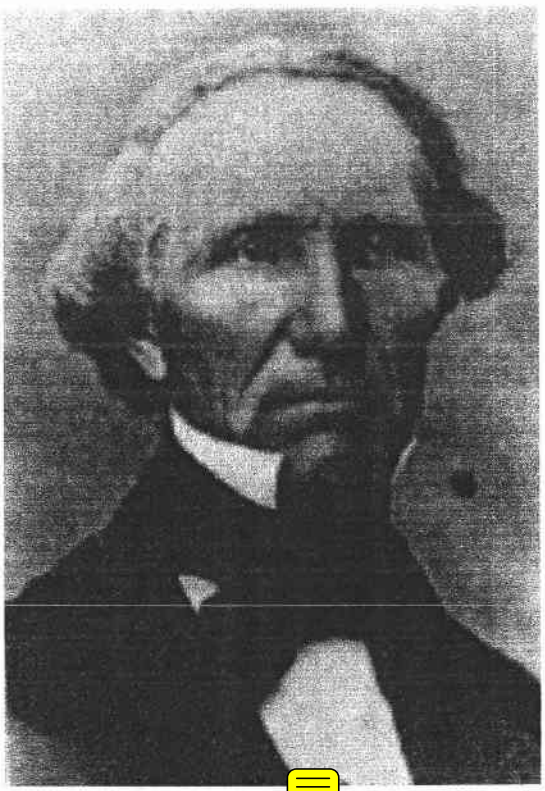


Figure 8. John Ball (Ball 1925)

The earliest possible non-Indian settler at 35MA41 was a man by the name of John Ball (Fig. 8). John Ball was born in 1794 in Grafton County, New Hampshire. Ball grew up on a farm, listening to the stories of the Pacific Northwest and the Flathead Indians who lived there. His neighbor John Ordway, who had been a sergeant with Lewis and Clark's voyage of discovery, told these stories to a young John, leaving a strong impression on him of the West John Ball received formal education in a nearby town. He furthered his education all the way through college, often by teaching to pay his way. In 1820 he graduated from Dartmouth College and in 1824 he was admitted to the New York bar. Shortly after this Ball took over the management of his

widowed sister's oil clothe manufacturing plant, which had been failing. By 1831 he had the plant back on its feet and was looking for new opportunities (Hussey 1967:63).

By 1831 there had been much publicity on the East Coast of America about the Oregon country, much of which came from Hall J. Kelly. Much of the publicity was a plea for American occupancy of the Oregon Country (Dobbs 1932: 31). Ball heard of a joint stock venture being put together by Nathaniel Wyeth in Boston to go overland to the Columbia and compete in the fur trade. Ball decided that, "having worked so hard all my life so far I decided I would take a little recreation", and decided to join the venture. Ball traveled to Missouri and from St. Louis he left on the adventure of his life in May of 1832 (Hussey 1967:63). Little did Ball realize that his "recreation" might have turned out to be some of the hardest work of his life.

Twenty-five men started out on the overland trip, of these only eleven made it all the way to the Columbia River (Hussey 1967: 63). The trip proved to be very difficult, the men dealt with many challenges, including desertion and near starvation, which was prevented only by coming across a group of Native Americans willing to share their meal with the party. By November the remaining eleven party members made it to Fort Vancouver (Dobbs 1932:32). At Fort Vancouver the party were given rooms within the fort and ate as guests with Dr. McLoughlin (Ball 1925:93). After some rest and food several of the party continued on to the coast, having come so far they wanted to see the ocean (Ball 1925:92). Here John Ball watched the sunset over the Pacific, and

felt he had now truly completed his journey west (Ball 1925:92), and possibly saw the stories of his childhood come alive. After a few days the party returned to Fort Vancouver (Ball 1925:92).

Upon arriving back at Fort Vancouver the Wyeth party disbanded their business relations. John Ball "not wanting to live gratis" (Ball 1925: 93) petitioned Dr. McLoughlin of the Hudson's Bay Company for a position. Dr. McLoughlin hired him to teach his son and other boys at the fort, thus making Ball the first teacher in Oregon (Ball 1925:93). All of Balls students were Métis with white fathers of various nationalities, and native mothers from various tribes, or as Ball put it, they were "all half-breed boys of course, there not being a white woman in Oregon." Ball found his pupils, despite the language barriers they encountered, to be "docile and attentive, making better boys than men"(Ball 1925:93). Although Ball seems to have had a distinct prejudice against natives, he found the "gentlemen in the Fort to be pleasant and intelligent"(Ball 1925:93).

After spending several months at Ft. Vancouver as a teacher (Hussey 1967:32), John Ball realized that there was no immediate way of leaving the Oregon Country without recrossing the mountains. Alternatively, he could settle in the Oregon Country(Ball 1835:14). Rather than stay at Fort Vancouver as a teacher and "thinking I might stay long in this country, I determined to go farming" (Ball 1925:94). In a letter written to his parents February 23, 1833 he explains: "I am going to the trade you taught me-farming-from which more comforts can be obtained with less labor and it is

more healthy than most others" (Hussey 1967: 64). He also describes his choice of land in the letter, the area known as French Prairie as, "a tract as large as the whole state of New Hampshire, except that which is taken by seven other farmers" (Hussey 1967:64).

In March of 1833 he chose land on the south bank of the Willamette River near the home of J.B. Desportes McKay, and "a little above *Camp Du Sable*"(Hussey 1967:65). Those "seven other farmers" probably had a great influence on where Ball chose to establish a farm. These other settlers had all taken tracts of land along the Willamette River, in relatively close proximity to one another (Fig. 7). Their farms were all located west of McKay's land claim along the northern tier of French Prairie. This places Ball on the next available and tillable piece of land along the river. This of course also allowed Ball to stay at McKay's home while he constructed one of his own. Ball describes his farm as having beautiful scenery of the mountains, near the river, with a cool spring for water "out of the river's bank" (Ball 1925: 96).

After choosing his building sight Ball returned to Fort Vancouver and Dr. McLoughlin, seeing he was determined to go through with this plan, loaned Ball twenty-five bushels of wheat for seed and meal, corn, potatoes, farming utensils, and as many horses as he cared to break (Hussey 1967:65). While setting up his farm Ball boarded with Jean Baptiste Desportes McKay's family for three months in 1833 (Hussey 1967:55).

On this land, which fits the description of 35MA41, Ball started a life alone, and from scratch. He created harnesses for his horses out of deerskin;

elk skin strings, and crooked oak limbs. With these he drew out logs for a cabin, put up rafters and created a roof of peeled cedar bark, which was covered with poles and tied with wood string to the timbers below. For furniture he split planks for a bedstead and table (Ball 1925:95). With assistance from his neighbors Ball broke a large field for the cultivation of wheat, sowed his crop and enclosed it all with a fence (Ball 1925: 95). Ball was only partially successful as a farmer. While his wheat crop flourished, his potatoes and corn failed (Hussey 1967:66), however he did not go hungry. With meal from Fort Vancouver to make bread and ample venison and salmon available Ball ate well (Ball 1925:95).

As for companionship, a Mr. Sinclair (also of the Wyeth party), spent some of his time at Ball's farm. Ball also employed a "young wild native" to catch horses for him (Ball 1925:95), but Ball most likely did not consider him a social equal. Much of the time Ball was entirely alone in his "house of cedar and fir"(Ball 1925:95). Ball did not interact with the other farmers on French Prairie. Regardless of the language differences between Ball and his neighbors (most would have spoken French or native languages), it seems that cultural differences and Ball's own prejudice kept Ball as aloof as possible. Despite the board at J.B. Desportes McKay's home and help with breaking his fields, Ball felt he had no "good neighbors", but only "Canadian French and half-breeds" and Ball "did not feel inclined to fall into the custom of the country and become identified with natives" (Ball 1835:14). He also did not welcome

his neighbors into his home but felt that, "even my own house has not been enjoyed without the intrusion of those I did not wish" (Hussey 1967:66).

Social isolation was not the only thing that discouraged John Ball; he also had to deal with illness. The "ague" (most likely malaria) had been present in the Willamette Valley since 1828-1829 and was at epidemic proportions at the time Ball was living in Oregon (Ball 1925:99). Ball came down with ague while Mr. Sinclair was living with him. However, when Sinclair left for Fort Vancouver to obtain medicine for Ball, Ball was left alone to fend for himself for three or four days, often in delirium (Ball 1925:97).

Ball feeling discouraged and isolated by the end of the summer, and feeling he had "experienced the country", and with no American immigrants coming into the country he decided to leave his "primitive life" at the first available opportunity (Ball 1925:95). The opportunity arrived in the early fall of 1833, when Ball exchanged his wheat crop for passage to San Francisco on to the Sandwich Islands and back the East Coast of America. He left his farm behind, seemingly only regretting the loss of the view on September 20th 1833, having spent six months at farming in Oregon (Ball 1925: 99). Ball then moves to Lansingburgh New York briefly, before finally moving again to Michigan where he lived out the remainder of his life as a lawyer (Husssey 1967: 66).

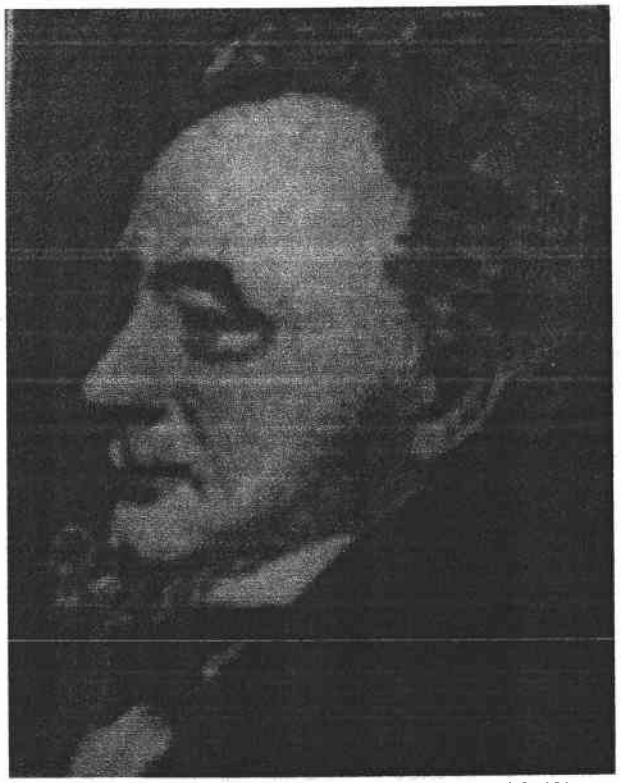


Figure 9. Nathaniel Wyeth (Wyeth 1969)

The next potential claimant of the property was none other than Nathaniel Wyeth (Fig. 9). Wyeth returned on a second trip to Oregon in 1834 to attempt again to establish businesses on the Columbia River, (his first attempt at competing with the Hudson's Bay Company in the fur trade being a complete failure)(Johnson 1957: 76). These new enterprises included a salmon fishery and farm on Wapato (now Sauvie) Island, naming the venture Fort William (Winther 1950: 94). He also determined to start another farm down in the valley on French Prairie in September of 1834. On the trip to find a suitable farm location he stopped at Mr. Thomas McKay's house and procured horses from his foreman Louis LaBonte. Wyeth then proceeds to describe the location he chose to farm as being three miles below "Dupatty's" [Jean-

Baptiste Desportes McKay] in a "prairie about 15 miles long and 7 wide, surrounded with fine timber and with a good mill stream on it" (Wyeth 1969: 79, 97), just above Sandy Camp (Hussey 1967: 60). This description is consistent with John Ball's description of his farm. It is not a great stretch to suppose that Ball's improvements of a cabin, barn and fenced acreage in what was most likely perceived as a wilderness, would be very desirable place to start out.

Wyeth however had no intention of ever living at this farm himself. He sent a Mr. Nutall, Mr. Townsend and Mr. Stout down to the valley to take care of the farm (Wyeth 1969: 80). What happened to these men is unknown, but apparently they did not stay for any length of time. Wyeth returned to the farm on October 27, 1835 commenting that Taylor and Sloat were not there, as they had gone to find him at the Lee mission (Wyeth 1969: 97). Whether he had changed foremen or lost Nutall, Townsend and Stout to desertion or illness we do not know. Illness certainly ravaged Wyeth's business ventures. Over seventeen men died the first winter and up to one-third were ill at any one time (Winther 1959: 94). Nathaniel Wyeth was not immune to illness, and combined with failing business ventures, he determined to return to Cambridge in early 1836. He describes these misfortunes in a letter to his wife:

> "I have been very sick, but have got well, and shall be on my way to the mountains, to winter at Fort Hall, in about six days. I expect to be home about November 1, 1836. We have lost by drowning, disease, and warfare seventeen persons up to this date, and fourteen now sick." (Winther 1950: 94)

Thus he left the Oregon Country, selling Fort William and Fort Hall (his two main business ventures) to the Hudson's Bay Company, and presumably abandoning his farms (Johansen 1957: 179), leaving his Oregon dreams behind him. Upon his return to Cambridge he returned to the ice business. He died in 1856 (Winther 1950:94).

WILLIAM JOHNSON

In 1836 a new face joins the Champoeg scene, an ex-Hudson Bay man by the name of William Johnson. William Johnson was born in the British Isles in 1790. As a young man he joined the US Navy during the war of 1812, fighting on the US Constitution during the engagement with the *Guerriere* (Hussey 1967: 76). Despite fighting for the United States William Johnson never did renounce his British citizenship (Hussey 1967: 77). In 1817 he joined the Northwest Company, and was transferred to the Hudson's Bay Company at the time of their merger in 1821 (Hussey 1967: 77). He worked for the Hudson's Bay Company until some time in the early 1830s. Company records show that Johnson was definitely on French Prairie by 1837, but Hussey believes that Johnson most likely settled in the area in 1836 (Hussey 1967- 77). Again it seems reasonable to assume that land, which had improvements upon it, would be as desirable for Johnson as it was for Wyeth. As well as being a logical choice because of improvements, the physical descriptions left in journals of the time are consistent with the typography of Site 35MA41. In these journals, Johnson is said to have lived on a farm "at

the mouth of Champoeg Creek" (Hussey 1967: 77). Wilkes says in his journal " to reach his dwelling, we passed through water over our shoes" (Wilkes 1975: 102). This is consistent with 35MA41, which lies on a slight rise on a prairie prone to seasonal flooding. Johnson's farm is described as having forty acres under cultivation, with wheat and potatoes flourishing, a kitchen garden and livestock (Wilkes 1975: 104). Johnson lived here with his native wife, and children, as well as two native slave boys (Wilkes 1975: 104).

In 1839 Thomas Jefferson Farnham visits the Johnson farm, describing it as a "good shantee". It was a hewn log structure, (as was Ball's) about twenty feet square with a mud chimney, hearth and fireplace (Franham 1977: 88). As will be seen later in this paper, the mud hearth does not correlate with 35MA41, which has a brick hearth, however during the many years of occupation it is likely that later occupants made improvements to the structure. The interior furnishings of the house were also described by Farnham as one chair, wooden benches, a rude bedstead, a floor covered with flag mats, sheet iron kettles, earthen plates, knives, forks, and tin pin cups (Farnham 1977: 88) The exterior features of the farm were also described much as Wilkes had, with fenced fields of wheat and oat stubble and potatoes, a kitchen garden as well as a barn filled with the harvest (Hussey 1967: 78).

Whether Johnson's farm was as successful a farm as his neighbors is not likely due to the soil change, which occurs at Champoeg. Perhaps this is the reason Johnson ventured into another business area, and became most famous in the Champoeg area for distilling a beverage known as "Blue Ruin",

an extremely strong liquor (Hussey 1967:78). For unknown reasons in 1842 Johnson left French Prairie to move to the area, which is now Portland (Hussey 1967:78). William Johnson died on November 12, 1848 at age 58 (Hussey 1967: 78).

WALTER POMEROY

How the land changes hands next is not known, but the long-standing tradition in the area has Walter Pomeroy owning the land. Shortly after he acquires the property it seems he traded the land claims with Robert Newell in early 1843(Hussey 1967: 107). What does seem clear is that if Walter Pomeroy was indeed the owner of the property, it was for a brief period, and with no intention of occupying the site himself. Possibly Pomeroy bought some land if not from Johnson, from Thomas McKay who ran a grist mill on Champoeg creek after the flood of 1843 swept away much of Champoeg (Hussey 1967:96). What is certain is that Walter Pomeroy in March of 1843 was a citizen of Oregon City, with 180 acres of wheat in cultivation on the Tualatin Plains (Hussey 1967: 107). So perhaps trading the land at Champoeg with Robert Newell helped consolidate his holdings on the Tualatin Plains. Land records in 1847 do show that Pomeroy possesses land adjacent to a claim that G.W. Ebbert and Caleb Wilkins applied for, which is consistent with Robert Newell's original claim on the Tualatin Plains (Hussey 1967: 107).

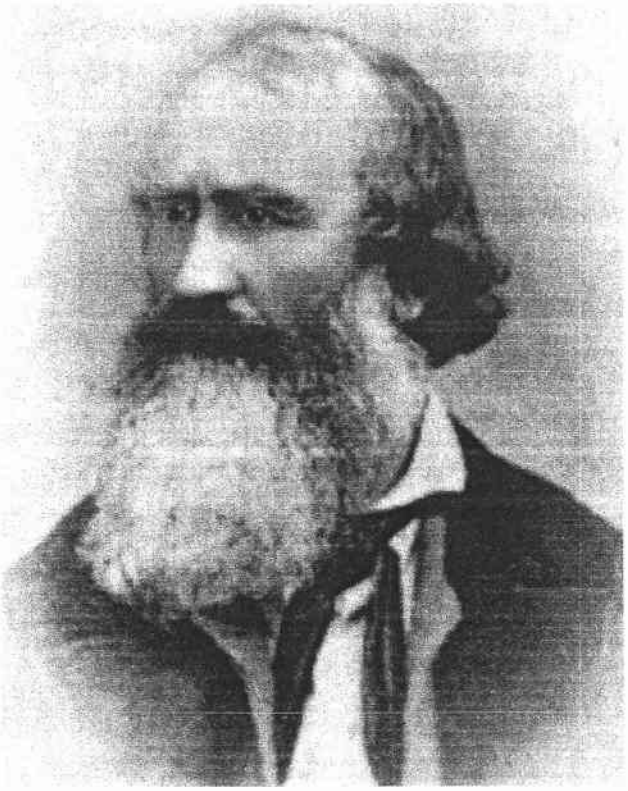


Figure 10. Robert Newell (Hussey 1967: 155)

ROBERT NEWELL

This brings us to the first documented owner of 35MA41, Robert Newell (Fig. 10), who began occupying the site at some point in 1843; the exact time of year is unclear. Robert Newell was born in Zanesville, Ohio on March 30,1807. As a young man he became an apprentice in saddlery in Cincinnati Ohio (Dobbs 1932: 150). At age twenty-two he joined the American Fur Company in St. Louis Missouri (Dobbs 1932:151), leaving for the Rocky Mountains with the Smith-Jackson Sublette party (Elliot 1902: 104). During his time as a fur trapper, Newell acquired the nickname of "Doc", for the simple surgical operations and simples or herbal remedies he used with positive effect on dogs, horses, mules, Indians and trappers (Elliot 1902: 104). Newell was well known for his love of songs and stories around the campfire

(Elliot 1902: 105), as well as being a lover of books. He is said to have carried a bible and Shakespeare with him at all times (Hussey 1967: 193). Newell spent eleven years as a trapper, moving up in the company as a leader of small parties (or bushaway (Elliot 1902: 105) and sub-trader, as well as a diplomat with the Indians (Hussey 1967: 193). In 1833 at Hams Fork of the Green River, Newell married a Nez Perce girl named "Kitty", the daughter of a sub-chief (Elliot 1902: 105).

In 1840 Newell found himself at Fort Hall, along with two other trappers Joe Meek and Caleb Wilkins. The fur trade was in a decline and talk of Americans taking he Oregon country was abundant (Hussey 1967: 193). Having heard of the rich soils and mild climate of the Willamette valley Newell decided to leave the life of a fur trapper to settle in the Oregon Territory (Dobbs 1932: 151). Newell's discussion with his fellow trapper's was recorded thusly:

> "Come," said Newell to Meek. "We are done with this life in the mountains—done with wading in beaver dams, and freezing or starving alternately—done with Indian trading and Indian fighting. The fur trade is dead in the Rocky Mountains and it is no place for us now if it ever was. We are young yet and have life before us. We cannot waste it here; we cannot or will not return to the States. Let us go down to the Wallamet and take farms. There is already quite a settlement there made by the Methodist Mission and the Hudson's Bay Company's retired servants" (Delamarter 1951:25).

Wilkens and Caleb, both said to be Newell's brothers-in-law by way of their Nez Perce wives agreed (Hussey 1967:193). The group started out from Fort Hall in wagons, which they drove over the Blue Mountains to the Columbia,

making them the first wagon to come to the Oregon Country from the plains (Elliot 1908:107).

Upon reaching the valley Newell took up a claim on the Tualatin Plains. Here he built a wigwam type shelter, like the ones he successfully had used in the mountains. The wigwams were no match for the extremely wet weather in the valley. If they could keep the roof from leaking, the floor was soggy (Delemarter 1951: 38). Newell writes in his diary, "the climate is not so healthy, I have had some sickness and also my family" (Delamarter 1951:38). The Newell family, which included two small boys and a pregnant Kitty, must have indeed been miserable that first year, unable to stay dry or healthy. Despite illness, in the spring Robert Newell obtained wheat seed from Dr. McLoughlin and began farming (Delemarter 1951: 38).

In the winter of 1842 Newell and his family moved to Oregon City (Elliot 1908: 109). Newell again showed himself to be a lover of books by helping to organize the Oregon Lyceum, a literary and debating society (Elliot 1908: 109), the first of its kind in Oregon (Dobbs 1932: 152). Also, in Oregon City, Newell showed an example of the good character for which he was known and the respect he had for Métis girls. At a dance in Oregon City some of the American men "became free in their actions in dancing with some of the half-breed girls. Dr. Newell called Lieutenant Peel to one side to remonstrate him. The Lieutenant said, " I really did no harm, Doctor." To which Newell replied, "No lieutenant, but you know you would not have acted in that manner with a young lady of your own class in London." (Pollard 1990 :463).

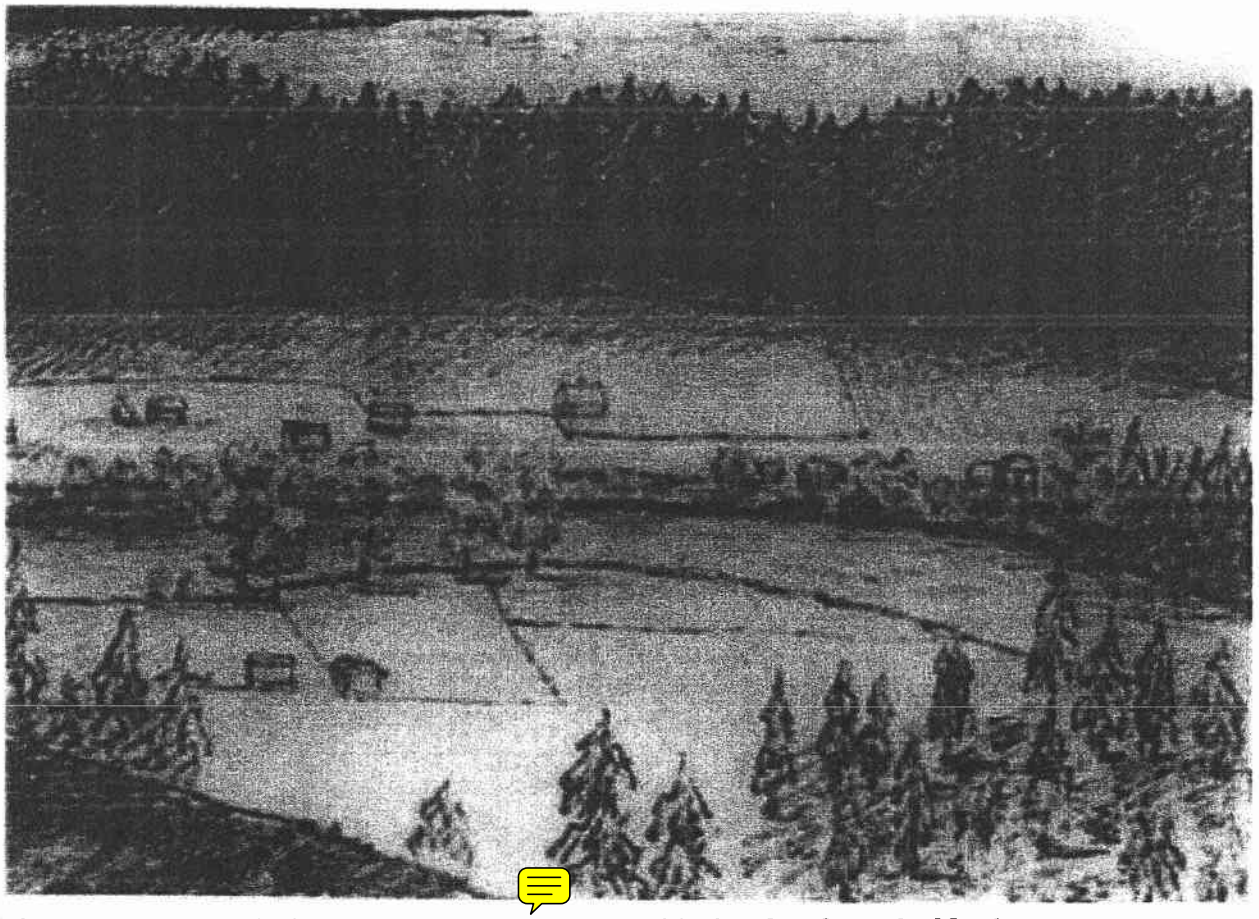


Figure 11. Sketch of Champoeg drawn by James Gibbs in 1851 from the North bank of the Willamette looking south toward Champoeg. (Hussey 1967: 208)

It seems that in Oregon City, Newell met Walter Pomeroy and they decided to trade claims in 1843 (Hussey 1967: 194). Newell's claim of 640 acres included the lower course of Champoeg Creek and the mill sites of both Hauxhurst and McKay (Hussey 1967: 195). This was later recorded as Donation Land Claim #2051 (Delamarter 1951: 93).

Newell and his family, which now consisted of four young boys, moved to 35MA41. Upon arriving at 35MA41 Newell plants wheat crop, but is not terribly successful. Newell planted an apple orchard and turned his attention to other business ventures. In 1844-1845 he begins to promote

Champoeg as a town with his neighbor Andre Longtain, platting the town and selling lots (Fig. 11)(Hussey 1967:197). Newell also begins to ship wheat to Oregon City with keelboats, the Mogul and Ben Franklin (Dobbs 1932: 152). These were the first on the Willamette River above the falls in 1846 (Delamarter 1951:92). Newell also became prominent in early Oregon government. In 1848 he becomes speaker of the legislature, and makes a speech, which kept the Nez Perce out of the Cayuse war (Dobbs 1932:153). In 1849 Newell was appointed Indian agent for the Indians south of the Columbia. He soon leaves this position however to go to the California gold mines (Dobbs 1932: 153).

In 1845 Newell suffered a personal blow when his wife of twelve years Kitty died a month after the birth of their fifth son (Hussey 1967:200). Kitty was probably only in her mid-twenties. Apparently Kitty had not been doing well for a while, for Newell made arrangements in July of 1843 for Alvin T. Smith to care for two of the boys. Smith writes in the agreement, " To all concerned be it known by these presents that for consideration here after specified I, Alvin T. Smith have received into my family the two little sons of Robert Newell, William M. now five years of age and Marcus W. now three years of age... to take a parental interest by means of family instruction, appropriate control in the physical, moral and intellectual improvements of the above named." Newell agreed to pay $104 for the year for the care and a provision was made for renewal after the year was out. It is not known

whether it was renewed, but by the 1850 census the boys were with Newell once again (Delemarter 1951: 90).

Six months after the death of Kitty, Newell married Miss Rebecca Newman, age fourteen. During their marriage another eleven children were born, four of which died in infancy (Hussey 1967:201, Delamarter 1951:208).

The Oregon tax roll of 1844 listed Newell's taxable property as, "town lots valued at $800, clocks $12, watches $100, horses $200, mules $300, cattle $20, hogs $20, with a total value of $ 1,452, which put him at the 25th highest out of the 400 tax payers that year (Delemarter 1951: 84). By 1850 the census shows that Robert Newell is still doing quite well. He had "540 acres of unimproved land, 20 swine, 3 working oxen, 25 milk cows, 40 other cattle, farm machinery, $150, 100 bushels of Irish potatoes, a farm valued at $600" (Census Report Marion County ca. 1850).

In 1854 Robert Newell began to build a new home on the higher terrace south of 35MA41 (Hussey 1967: 206). Which was where he was living when the 1861 flood wiped out the town of Champoeg on the lower terrace.

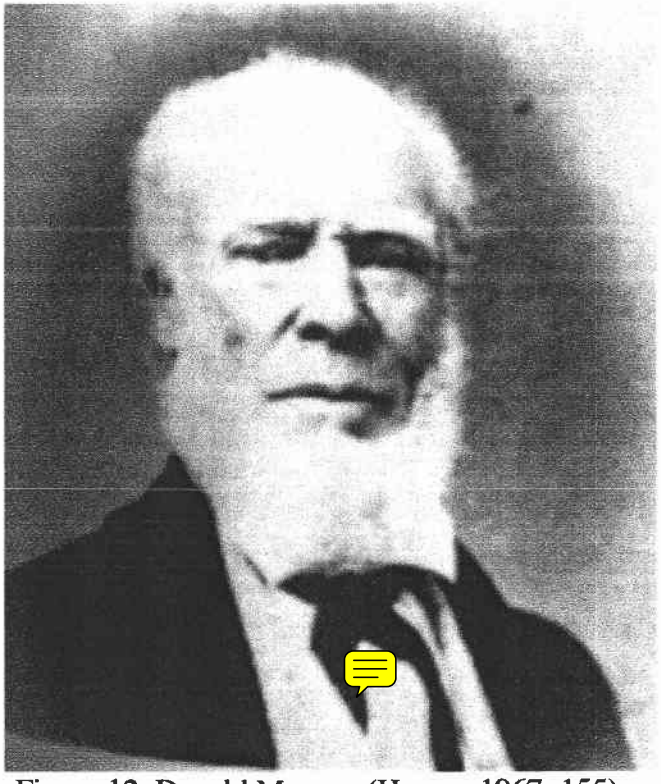


Figure 12. Donald Manson (Hussey 1967: 155)

The final owner of the property encompassing site 35MA41 prior to the 1861 flood was Donald Manson (Fig. 12). Manson was born in Scotland in 1798 or 1799. He joined the Hudson Bay Company (HBC) in 1817 and spent the next 40 years working in their service. For the first ten years of his service he worked in eastern Canada. In 1825 he was transferred to the Columbia Department. He made his first visit to the Champoeg area in May of 1826 on a southern fur expedition. During his subsequent years at HBC Manson worked throughout the Columbia district at Fort George, Fort Vancouver and in what is

now British Columbia along the Fraser River. During this career he took the time in October of 1828 to marry Etienne Lucier's daughter Felecite.

In 1857 Manson asked for a furlough from the company to take care of "family matters", which seems to have included the education of his children. He was granted the furlough from 1857-1858. During this time he purchased the Robert Newell farm. This included all of Newell's bottomland, excepting his holdings within the Champoeg town site. Also included in this land sale was a tongue of land on higher ground, the same terrace where Newell had built his new dwelling (Hussey 1967: 223-225). The sale was concluded on October 6, 1857 for $6500, although Manson did not move to the area until the summer of 1858 (Hussey 1967: 225).

Manson then asked that his furlough be extended and for permission to retire from the Hudson's Bay Company. Both requests were refused. By 1858, Manson had not achieved a rank higher than Chief Trader and was tired of the fur trade (Hussey 1967: 224). He wrote on April 29, 1858, "having now given up all hope of further promotion in the fur trade [I am determined to resign] and settle down in the Willamette." (Hussey 1967: 225). At this point Manson began to improve his new lands, spending large sums on improvements and stocking his property (Hussey 1967: 225). Unfortunately, during the 1861 flood most of his improvements, including the old Newell house were washed away. Manson remained at Champoeg until his death in January 1880 (Hussey 1967: 225).

Chapter 4. Methodology

Systematic research began at 35MA41 in the spring of 1998. A ground penetrating radar (GPR) survey was done of the site in August of 1998. The GPR survey was accomplished by James Bell of Pacific Geophysical Surveys, Inc. (Bell 1998). This was followed by a cesium magnetometer survey of the site by Kendall McDonald from Portland State University (McDonald 1998).

Archaeologists from Oregon State University returned to the site during the 1999 field season. Dr. David Brauner served as Principle Investigator, assisted by Robert Cromwell of the Department of Anthropology, Syracuse University. Surface artifacts were mapped and recovered followed by subsurface sampling of the site.

Results of the cesium magnetometer and ground penetrating radar surveys were combined to help guide the subsurface sampling program. One by 1 and 1 by 2 meter archaeological test pits were excavated to sample subsurface anomalies. Test excavations were also placed away from defined anomalies to serve as cultural content and stratigraphic control units. The results of the subsurface investigations were encouraging. Cultural material was found up to 50 centimeters below the plow zone, one post mold/post-hole feature was defined, a brick concentration extending below the plow zone was indicated, and organic preservation was good. The preliminary assumption that the site was occupied during the mid-nineteenth century was confirmed. With the exception of the Jason Lee Mission site (Sanders, Weber, and Brauner 1983), no portion of early to mid-nineteenth century sites had been

found below the plow zone on French Prairie and preservation of organic material is usually poor. The results of the 1998 and 1999 investigations are detailed by Cromwell, Stone and Brauner (2000).

A volunteer crew from the Oregon Archaeological Society and Oregon State University returned to the site during the 2000 field season for 3 weeks. Robert Cromwell and Delight Stone directed the fieldwork. A 6 by 10 meter grid was defined around Test Pit F, which was excavated in 1999. The plow zone was removed in 2 by 2 meter units across this grid in preparation for large block style excavations, which would occur in subsequent field seasons. Only artifacts observed by the excavators were recorded and the fill was not screened. Test Pit F, which had clipped the edge of what appeared to be a brick filled pit, had not been excavated to the bottom of the feature in 1999. This test unit was reopened and excavated to sterile deposits.

After a year's hiatus, archaeologists from Oregon State University returned to the Robert Newell Site in 2002 with a grant from the Oregon State Parks and Recreation Division. Dr. David Brauner directed the project, with Jim Herbert acting as field foreman and Mollie Manion managing the archaeological field laboratory. Dennis Wiley served as State Parks liaison officer.

The field strategy for the 2002 field season centered on a large block excavation in the vicinity of Test Pit F. A 6 by 8 meter block was excavated exposing a large pit filled with fragmented brick. By the end of the 2002 field season a small intact pavement composed of carefully placed fragmented

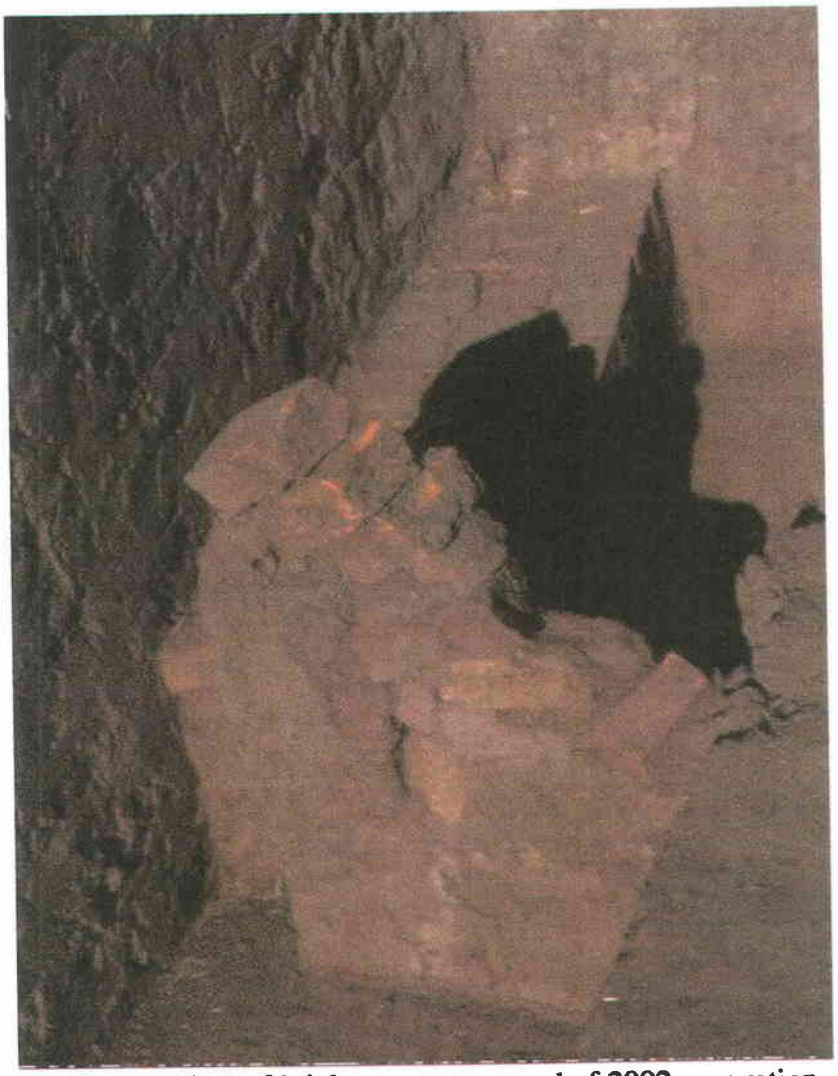


Figure 13. View of brick pavement at end of 2002 excavation.

bricks were encountered along the northwest corner of the brick filled pit (Fig. 13). Since no intact architectural features had ever been found on early historic French Prairie sites the possibility that we had found a hearth, foundation, well or paved walk feature was exciting. We did not have enough of the feature exposed to draw any functional conclusions however. We also were unclear as to the relationship of the brick filled pit and the intact feature.

Beyond the brick filled pit, a mix of domestic and architectural cultural remains were recovered to depths exceeding 60 centimeters below the plow

zone. No clear structural features other than the brick features were noted, and not discrete occupation surfaces were defined. As a consequence, the functional association of the artifact assemblage was unclear. The bulk of the recovered artifacts continued to date to the Newell occupation period but we were encountering very early nineteenth century ceramics and some hand wrought nails south and west of the brick filled pit with increasing depth. By the end of the field season we had not encountered the base of the cultural deposits and we were beginning to seriously consider that the site had been occupied prior to Newell's arrival at Champoeg. Brauner and Manion completed an interim report on the 2002 field season in 2004.

Archaeological investigations resumed at the Newell site in 2003 with continued support from the Oregon Parks and Recreation Division. Our research objectives were more focused than in previous field seasons. Excavations resumed in the same grid units that were being investigated in 2002. Exploration of the brick filled pit feature resumed. Excavations were expanded to the west of the brick filled pit in order to expose the intact brick feature and determine its function. The block excavation was also expanded to the northeast and south in order to search for structural features and /or clearly definable living surfaces associated with a dwelling. A series of 1x2 meter tests pits were also extended to the east to serve as control units to determine the extant of the cultural materials.

Going into the 2003 field season we were fairly certain that the brick features were related to the Robert Newell dwelling. We also hypothesized

that the site was occupied prior to Newell's arrival at Champoeg and occupation ceased about the time of the 1854 flood. Donald Manson, who bought the Newell farm in 1856, did not occupy this location.

The 2003 archaeological excavations were directed by Dr. David Brauner, Mollie Manion and Mathew Diederich from the Department of Anthropology, Oregon State University served as field foremen. Kara Kanaby managed the archaeological field laboratory. Twenty-three students associated with the Oregon State University Archaeological Field School contributed their labor and enthusiasm to the project. Excavations began on June 24th and continued through August 15th 2003. Archaeological field work was authorized under the stipulations of permit number AP-487 issued by the Oregon State Historic Preservation Office in 2002 and extended through the 2003 field season (Fig. 14).

By the end of the 2003-field season the intact brick pavement, first noted the previous field season, turned out to be a large brick hearth. The firebox and chimney had been torn down. A pit had been dug on the east end of the feature partially destroying the eastern margin of the hearth and the firebox brick had been thrown into the pit. An oven door, firebox hooks, and baking pans were associated with the brick rubble in the pit. The vertical and horizontal dimensions of the brick filled pit were defined and enough associated artifacts were recovered to date the destruction of the firebox to the early 1860s. A prepared clay floor was identified immediately south of the hearth. The clay floor represented the first occupation of the house and has an

associated artifact assemblage that dates to the early to mid-1830s. Several postholes with associated post molds were also identified. The dimension and arrangement of the postholes suggest a "post in the ground" construction technique usually attributed to French-Canadian builders (Brauner: personal communication). The overall size of the dwelling is still unknown however. At least one more field season will be needed to recover the entire structure. The hearth, prepared clay floor, postholes, and brick filled pit were left intact in anticipation of future archaeological investigations and interpretive options.

The structure at 35MA41 is clearly a domestic household. The house also predates Robert Newell's occupation by a decade or more. As will be noted, the house was remodeled and possibly enlarged during its life span. Newell and his family were the last occupants of the structure according to the archaeological evidence. They probably abandoned the house after the 1853 flood, building their second home on a higher terrace a few hundred meters to the south. Newell sold his Champoeg farm to Donald Manson in 1856. Based on the archaeological evidence, Manson and his family did not occupy the "floodplain" house. The house, or possibly just the firebox and chimney, remained on the flood plain until the1861 flood. Soon after this devastating flood Manson destroyed the old firebox and tossed the remains into a large pit. The site has been farmed since the early 1860s.

The archival portion the research was greatly assisted by the work of John A. Hussey, whose book *Champoeg: Places of Transition*, has been a seminal work on early French Prairie. Hussey's research into primary

documents was extensive and thorough. Where possible I have tried to go back to the primary sources Hussey cited for my own research. A seminal work on the lives of Native women who married into the fur industry and the Métis culture that developed is Julian Pollard's dissertation *Making of the Métis in the Pacific Northwest, Fur Trade Children: Race, Class and Gender.* Another invaluable resource has been the previous archaeological work done on French Prairie and at Fort Vancouver. The bibliographies of the archaeological reports for the area also created a strong base to start archival searches. I went to Fort Vancouver to do a comparative analysis between artifacts from 35MA41 and those found at Fort Vancouver to see if the Hudson's Bay Company could be the source of those materials.

Historical interest in the early Oregon Country also facilitated my research. Many of the journals from early settlers and visitors have been published. This made accessing primary documents much simpler. Unfortunately, only a few men who had more education and a higher economic status wrote primary documents. Women and children are rarely mentioned, and family matters even less. By using both the journals and the archaeology of domestic sites, a much fuller picture of early 19th century life on French Prairie can be developed.

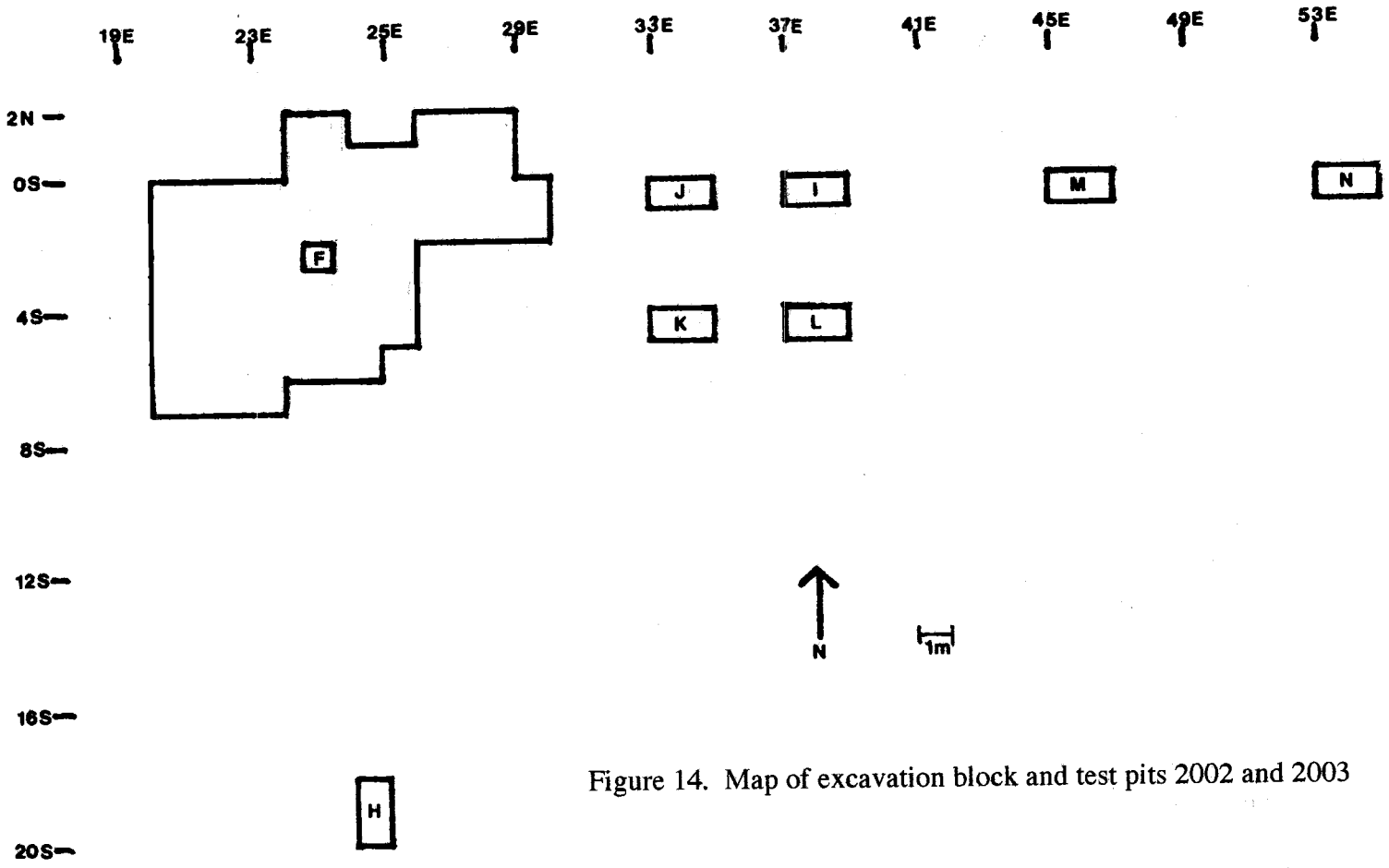


Figure 14. Map of excavation block and test pits 2002 and 2003

Chapter 5. Descriptive Archaeology

In this chapter, I will first examine the architectural evidence, which may have been left by the sites occupants, combined with the available archival record. Artifact assemblages will also be proposed which may correlate with the hypothesized settlement history.

Architectural Data at 35MA41

The largest architectural feature exposed during the course of excavations was a large brick hearth. This hearth measured approximately two meters by three meters with a 50 cm by 75 cm section in the southeast corner dismantled (Fig. 15). The hearth was constructed from locally made sand-struck bricks. All of the bricks were broken and carefully pieced together in courses. The hearth is made up of seventeen courses of broken bricks with a finishing trim course on the south interior side of the hearth (Fig. 15 and 16). These trim bricks are smaller fragments and oriented perpendicular to the remaining brick courses. The bricks ranged in size from small fragments to half-size bricks, but were very carefully laid to produce an even flat hearth. The north end of the rise upon which 35MA41 stands was dug out during the construction of the hearth in order to produce a level surface. Figure 17 is a schematic of the stratigraphic profile of the cut. Figure 18 shows an undisturbed normal soil profile taken from a core sample just to the north of the excavation block.

The bricks also varied greatly in how hot they had been fired. The bricks varied from sun-baked clay to highly fired brick. This most likely represents uneven firing in a primitive brick kiln. These kilns were small and portable, but temperature was very hard to control. It is not known whether the brick was made on site by the occupants of the house or brought in from elsewhere. However, the fact that the brick is fragmented suggests salvaged material coming in from elsewhere. The extensive use of broken brick also indicates that brick was a difficult material to obtain at the time of construction, or were obtained as free salvage. The earliest known brick excavated in the Willamette Valley was recovered from the Willamette Mission site dating from 1839-1841 (Sanders, Weber and Brauner 1983:195).

Figure 15. Southeastern corner of hearth dismantled.

Figure 16. View of the hearth facing east.

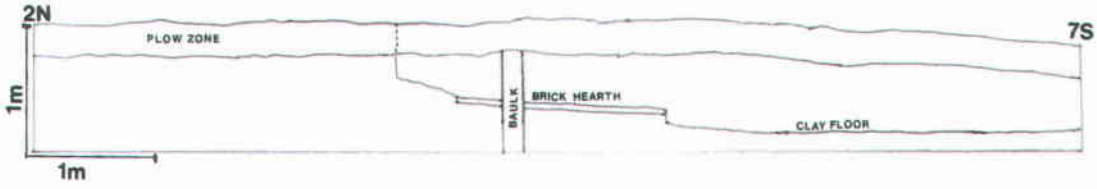
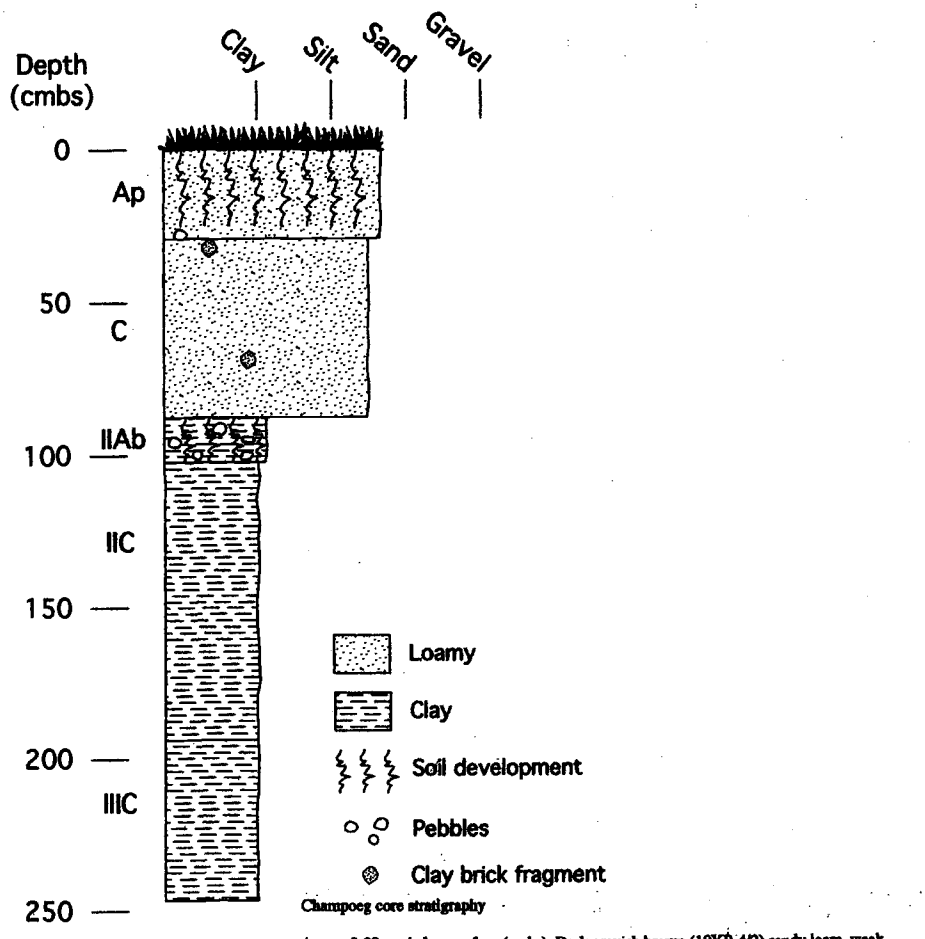


Figure 17. Stratigraphic profile of cut for hearth.



Champoeg core stratigraphy

Ap 0-29 cm below surface (cmbs): Dark grayish brown (10YR 4/2) sandy loam, weak subangular blocky structure, common fine yellowish brown (10YR 5/4) mottles, common medium to fine roots, nonsticky, nonplastic, friable, rounded fine pebble at 28 cmbs, abrupt wavy boundary.

C 29-81 cmbs: Brown (10YR 4/3) sandy clay loam, weak angular blocky structure, few clay brick fragments at 29 cmbs and 73 cmbs, and few charcoal fragments throughout, few fine roots, slightly sticky, slightly plastic, hard, clear smooth boundary.

IIAb 81-101 cmbs: Brown (10YR 5/3) pebbly clay, common fine subrounded pebbles, matrix supported, medium angular blocky structure, common fine charcoal fragments throughout, sticky, plastic, very hard, abrupt smooth boundary.

IIC 101-199 cmbs: Brown (10YR 5/3) clay, massive structure, few fine charcoal fragments throughout, sticky, plastic, extremely hard, clear smooth boundary.

IIIC 199-246 cmbs: Brown (10YR 4/3) clay, massive structure, few fine charcoal fragments throughout, sticky, plastic, extremely hard.

Figure 18. Soil profile at 35MA41 with no disturbance.

Ash was confined to the east side of the hearth, containing bones and ceramics and even a fork. A ferrous metal oven door and hand forged hook for hanging a pot were also found on the eastern side of the hearth. The west side of the hearth was nearly free of ash and debris. It is the author's belief that the west side of the hearth was clear of debris because it had been used as an oven and the east as an open fire hearth. A reproduction based on historic records of this type of oven and hearth can be seen at Fort Vancouver (Fig. 19). The hearth/oven at the Newell site would have been much smaller than the reproduction at Fort Vancouver, since it was for domestic use. The hearth was located on the northern wall of the house.

Figure 19. Closer look at oven at Fort Vancouver. Note the hand forged hooks for hanging pots above the hearth.

Hearth features were usually placed on an exterior wall during this time period (Brauner personal communication). Conversely, the area south of the hearth feature represents the interior of the house.

During excavation another set of architectural features was discovered. A series of post-molds and post-holes were revealed at 35MA41 as excavation proceeded deeper below the plow zone. The post-holes were difficult to see and usually only appeared as a slightly moister sole stain, which disappeared within an hour. However with a few days of drying, differential cracking in the soil made them appear again. The post-holes were very distinctive in shape being square, with rounded corners. The measured approximately 50cm by 50cm. The post-holes were all oriented towards magnetic North. The post-molds in the center of the holes were both round and square in shape indicating the use of round and square posts (Fig.20 and 21).

One post-hole still had a post intact. The post had been sheared off at the base of the plow zone (see Fig. 22). The post was identified as locust wood. Locust trees are not native to Oregon, though they are found through out Champoeg Park. Early settlers from the East coast are thought to have imported locust trees, because its wood was highly rot resistant and was often used for posts (Dennis Wiley personal communication). This post confirms that the locust tree was being imported by at least 1853. Locust trees grow wild in the park today.

The position of the posts is illustrated in figure 23. This shows that two of the posts are at the western corners of the hearth and scattered around the site. Not enough of the structure has been excavated to clearly understand the extant of the house. The posts are consistent with the French Canadian method of post in ground construction, which was common on French Prairie in the early nineteenth century. The size of the posts indicates that they were large enough in size to use for structural supports for a building.

Figure 20. Posthole with round post mold.

Figure 21. Posthole with square post mold.

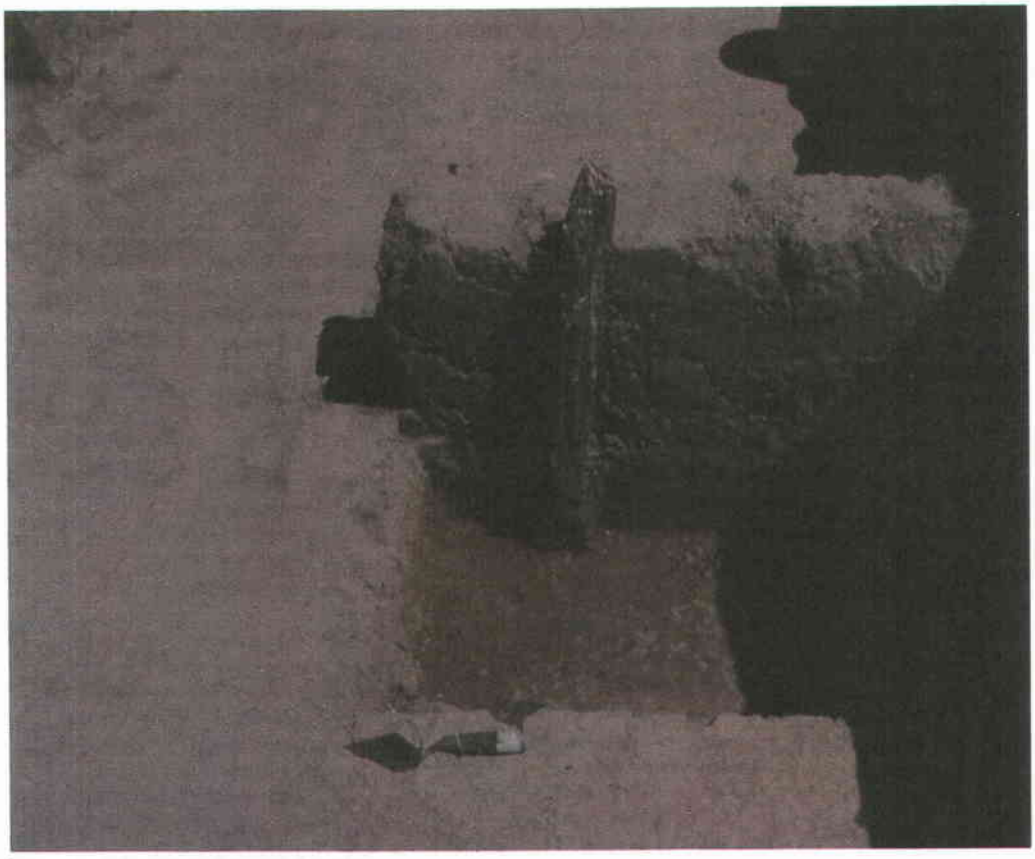


Figure 22. Post found in situ

All of the machines cut nails recovered from the site represent building done during Robert Newell's occupation. Machine cut nails were not available in the Champoeg area in until 1843 (Brauner 1987: 15-16)

Figure 23 shows a map of artifact dispersal to the northeast of the post found in situ. The higher frequency on the exterior side of the post is much higher. This may possibly indicate an exterior wall. It is very common for exterior surfaces have a much higher frequency of artifacts (Brauner personal communication). Also associated with Newell are machine cut nails and flat glass (which probably represents window glass), which are evidence of improvements to the house itself.

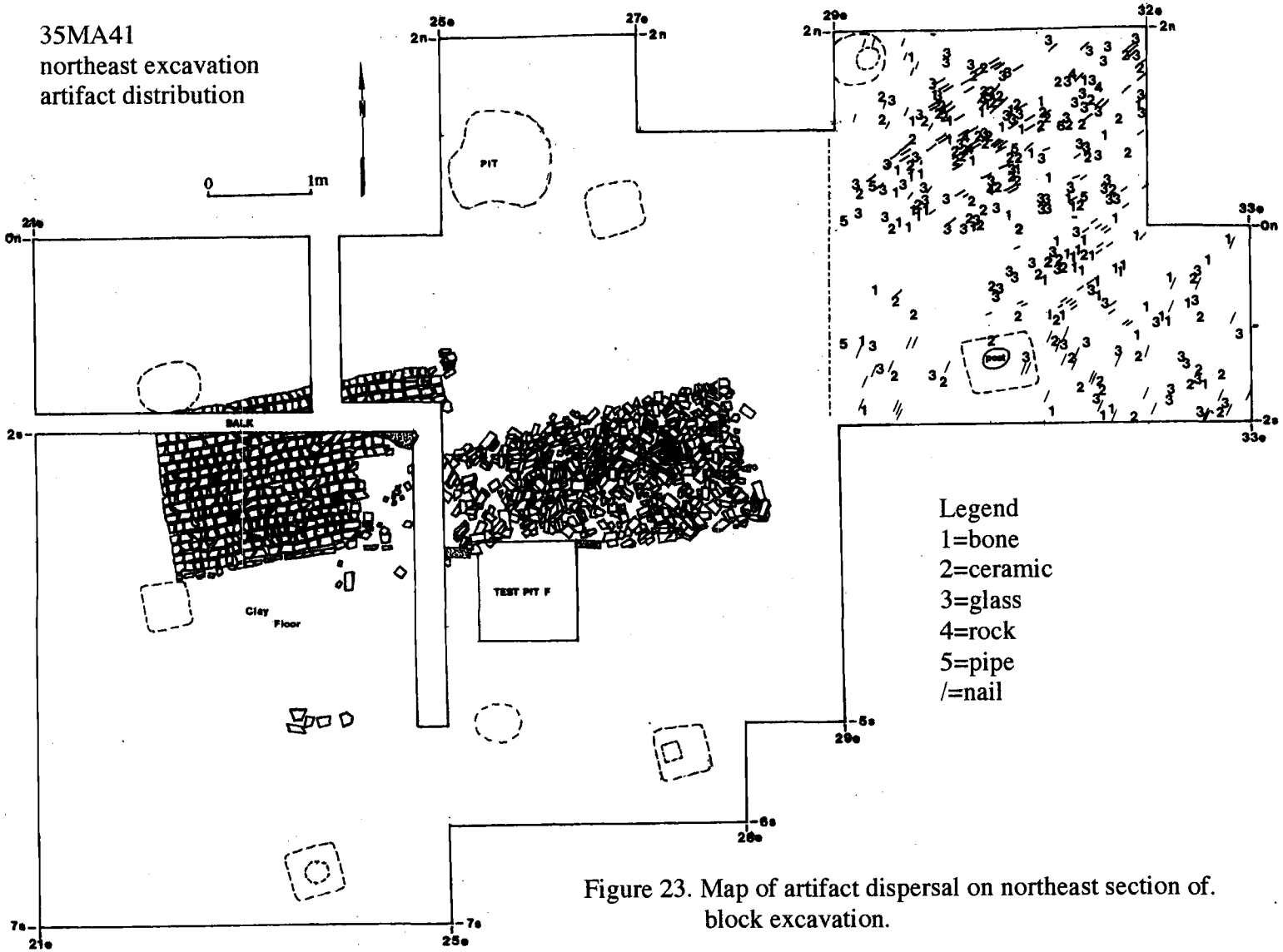


Figure 23. Map of artifact dispersal on northeast section of. block excavation.

To the west side of the hearth was a large pit measuring 1.4 meters by 3 meters and approximately 1.5 meters in depth (Fig. 22). This pit was filled with brick rubble and artifacts. The amount of brick exposed by the excavation could account for the remains of the firebox and oven, which were disposed of in this pit. Many artifacts were also associated with the hearth feature, such as a baking pan (Fig. 25) a hand forged hook (Fig. 26) and an oven door, (Fig. 27). The presence of larger and whole brick in the rubble pile may indicate that larger bricks were used for the vertical portions of the hearth to maintain structural stability (Fig. 28). Figure 29 shows brick fragments with fingerprints molded into the brick.

Figure 24. Pit fill at maximum exposure

The dating of the pit coincides with the flood of 1861. The majority of artifacts found at 35MA41 are extremely fragmented, even those found below the plow zone. However, within the pit, a nearly complete "Catawba Wine Bitters" bottle was recovered in several large fragments (Fig. 30). This bottle is anomalous to the site as it is the only item to have a manufacturing date after 1855 and the abandonment of the house. The bottle dates to 1860-1867 (Fike 1987:32). It is possible that the Catawba Wine Bitters was drunk at the time the pit was dug and thrown in after being consumed. The author believes that the dating the pit as post-flood is supported by the fact that the southwestern end of the hearth was dismantled. If the pit had been dug after the flood, the flood deposits that would have settled on the hearth and could have obscured the perimeter of the hearth, while leaving the firebox visible. The partial destruction of the hearth on the southwestern edge indicates that the goal was not to completely destroy the hearth feature, but to level all architectural features to ground level. This would have prepared the area for agricultural purposes.

Figure 25. Ferrous metal baking pan

Figure 26. Hand forged hook and pin, used for hanging cooking pots over the hearth fire.

Figure 27. Oven door recovered from 35MA41.

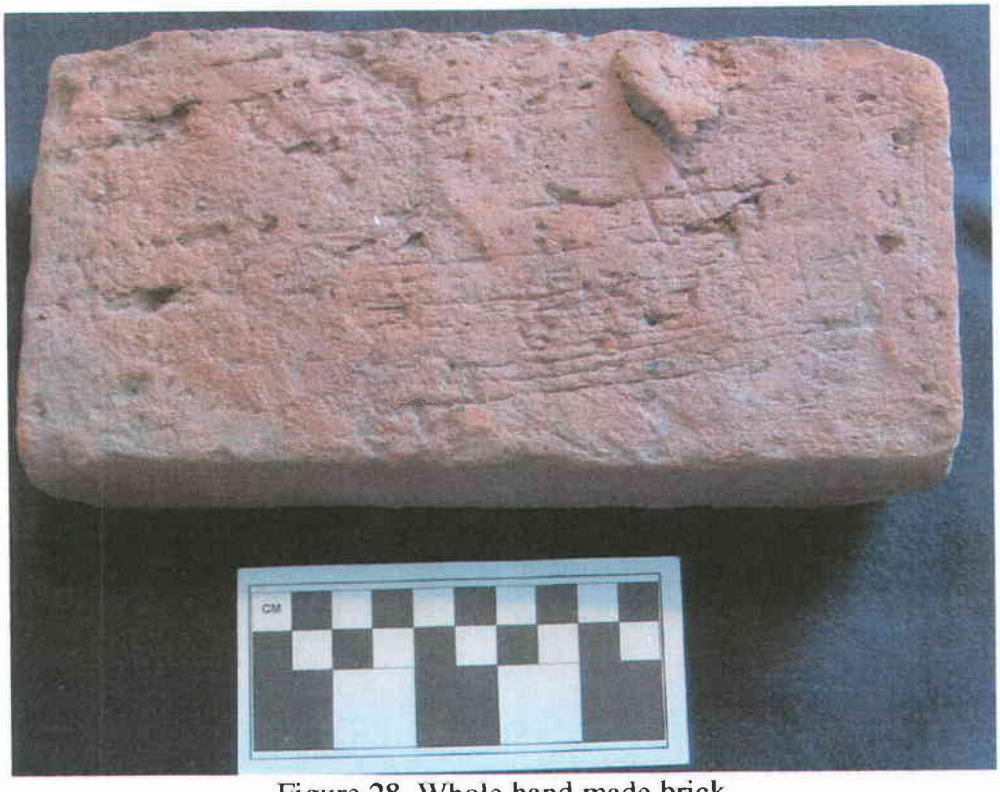


Figure 28. Whole hand made brick.

Figure 29. Two fragments of handmade brick with fingerprints.

Figure 30. Catawba Wine Bitters bottle in situ in rubble pit.

The Domestic Artifacts

Approximately 9,000 artifacts were recovered from 35MA41, representing nineteen functional classes, based on the Sprague typology (see appendix A). Four distinct assemblages were defined for the site and include, the house floor, house fill, pit fill, and the plow zone. The house floor assemblage is defined as the artifacts embedded into the remnant clay floor. This assemblage is the only one that represents an intact living floor. The pit fill includes any artifacts recovered from the boundaries within the brick rubble pit. The plow zone assemblage consists of the artifacts found in the first excavation level, which have been seasonally churned and broken by plowing activity. The house fill is defined as the artifacts that lie below the plow zone and were not on the house floor or in the brick rubble pit. The house fill assemblage includes artifacts that would have been on the interior and exterior of the dwelling, as it is not yet possible to distinguish the boundaries of the dwelling. Each assemblage will be discussed in terms of function and dispersal. For a full description of recovered artifacts see appendix B.

Assemblage One: The House Floor

As previously discussed, a remnant clay floor was identified south of the hearth area. This was the only discernable living surface at the site, representing the earliest occupants at 35MA41. The house floor assemblage is the oldest assemblage. This assemblage dates from the early 1830s to the very

early 1840s and could be associated with John Ball, Nathaniel Wyeth or William Johnson. 822 artifacts, representing ten functional categories were recovered (table 1). The artifacts were concentrated on top of and to the immediate south of the hearth for approximately 1.5 meters (Fig. 31). Many of the artifacts were embedded into the prepared clay floor and date to a pre-Newell occupation of the site. These artifacts were likely preserved in the clay floor by a later addition of a wood floor (Fig. 32). This would explain their nearly complete, but extremely shattered condition. Figure 33 illustrates the distribution of ppre-1843 ceramics found across the site. The majority of artifacts were related to activities associated with food preparation and consumption.

Artifacts found directly on top of the hearth include six fragments of bone representing cuts of lamb and beef (for full faunal analysis see appendix C). Also on top of the hearth were fragments of ceramics pertaining to culinary activity. Directly to the south of the hearth a concentration of artifacts, which included a case gin bottle dating from 1780-1830 (Fig. 34), a Chinese porcelain ginger jar dating to the first half of the nineteenth century (Fig. 35), and a feather edge decorated soup plate dating from the 1830s-1840s (Fig. 36), as well as other ceramics and wine bottle fragments.

Figure 31. Artifact scatter in front of hearth.

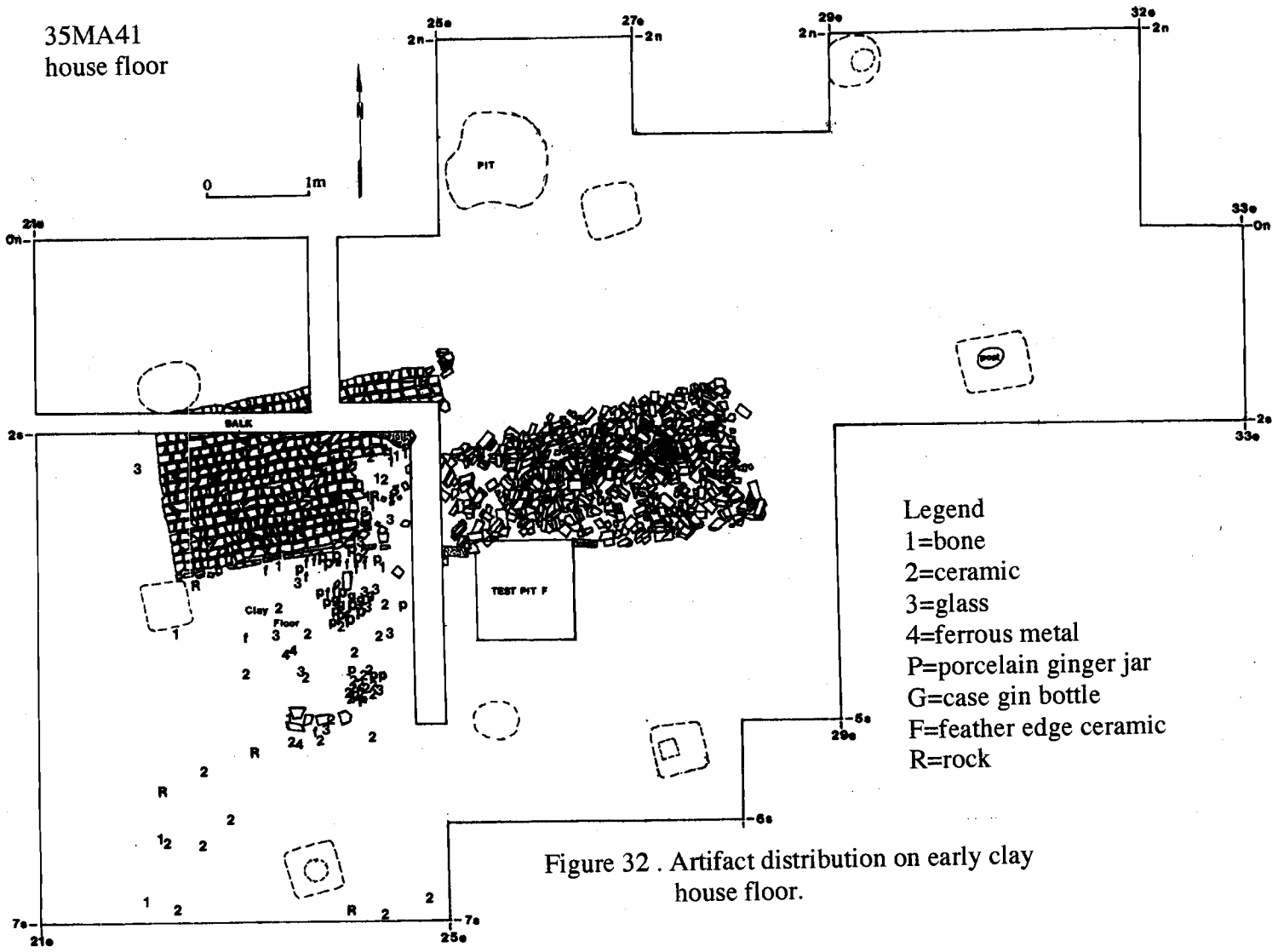


Figure 32 . Artifact distribution on early clay house floor.

Table 1. House floor assemblage

Personal Items	
Footwear	1
Indulgences, alcohol bottles	184
Housewares and Appliances	
Gustatory, ceramics	541
oven door	1
Portable illumination	3
Unknowns	
Glass	3
Metals, ferrous	7
Organics, bone	4
Organics, wood	3
Fire cracked rock	3
Rock	1

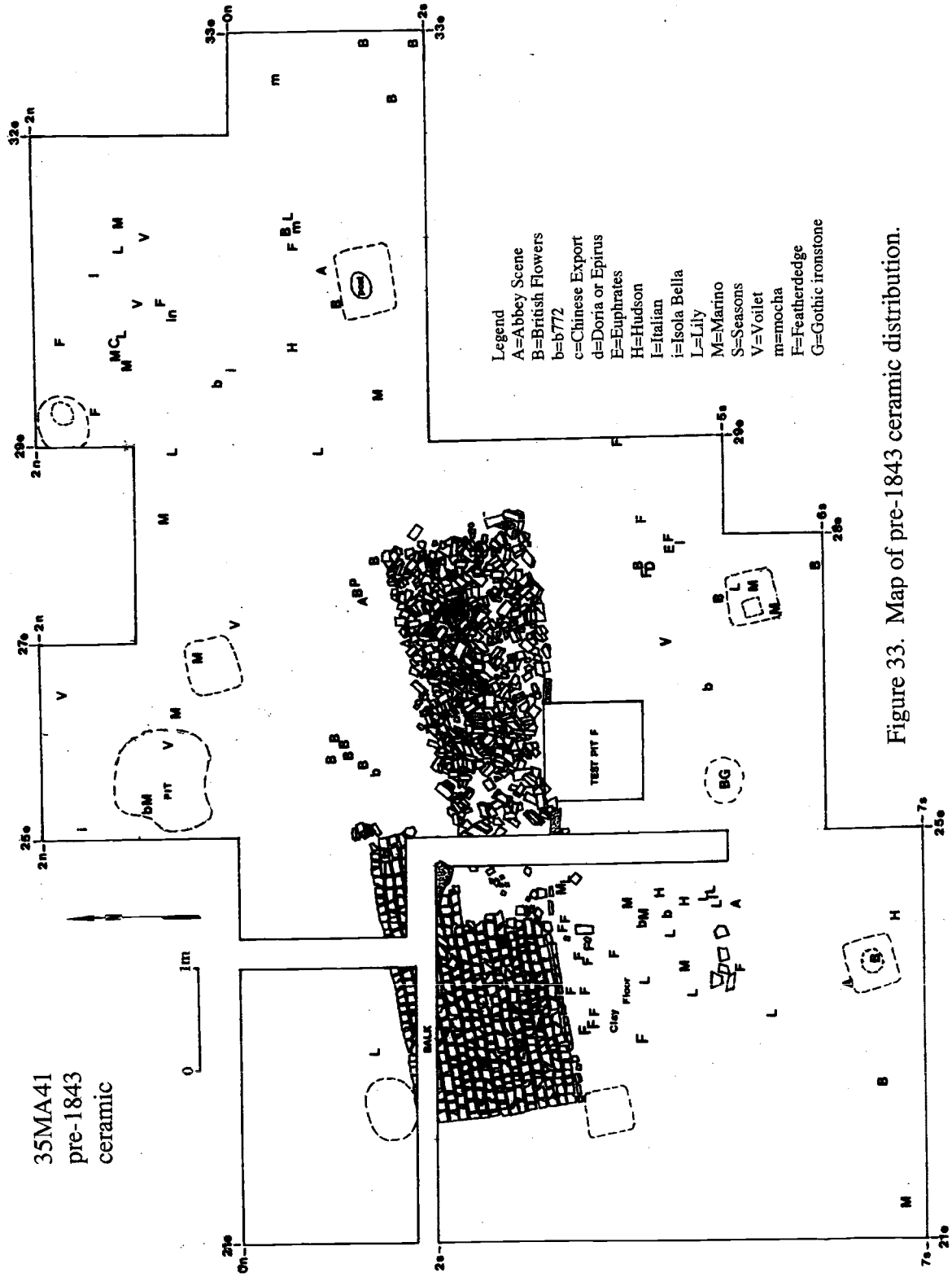


Figure 33. Map of pre-1843 ceramic distribution.

Figure 34. Case Gin bottle after cross mending

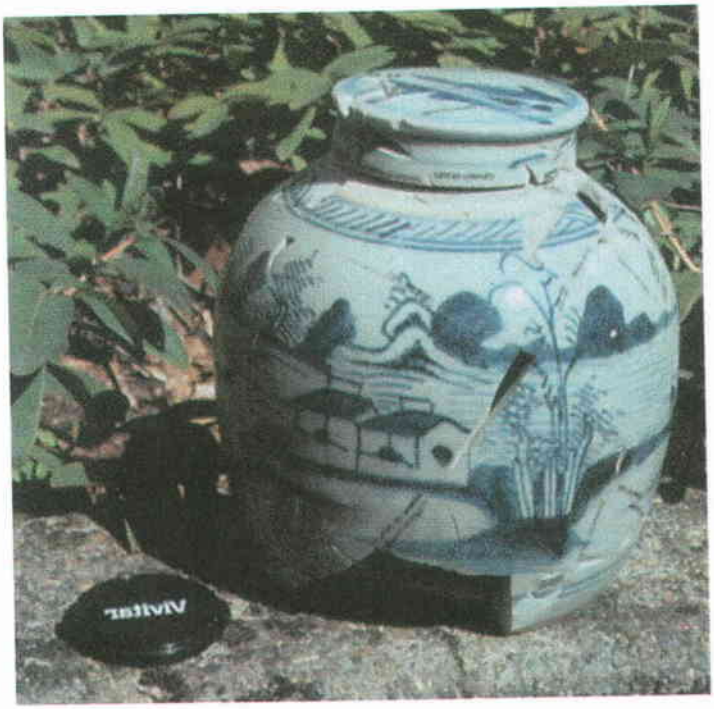


Figure 33. Ginger jar after cross mending

Figure 34. Feather edge decorated soup plate, after cross mending

Assemblage 2: Pit fill

460 artifacts were recovered from the brick disposal pit, representing sixteen functional categories (see table 2). Artifacts were randomly distributed through out the brick rubble. As was discussed previously, the Catawba wine bottle dates the to after the 1861 flood. With the structure of the house gone, many domestic and architectural items would have been scattered about the site. These artifacts were thrown into the pit randomly while the firebox was being demolished. Many of the artifacts found in the pit were associated with the hearth feature, such as a baking pan, ceramics and of course brick. Since the purpose of the pit was to dispose of the firebox associated with the hearth, it is logical that many of the artifacts originally associated with the hearth were thrown into the pit along with the brick.

Personal items found in the pit fill include buttons, beads, a wooden brush (Fig. 37), wine bottles and clay pipes. Culinary items include a baking pan, pot hook, ceramics and glass tumblers. Faunal remains associated with the hearth were also included in the pit fill.

Figure 37. Wooden brush

Table 2. Pit fill assemblage

Personal Items	
Clothing, buttons	1
Footwear, shoes	3
Adornment, beads	2
Body ritual, grooming, brush	1
Indulgences pipes	8
Alcohol bottles	29
Domestic Items	
Culinary, baking sheet	1
Hook for pot	1
Gustatory, ceramics	49
Tumblers	2
Portable illumination	2
Cleaning and Maintenance, needle	2
Architectural	
Construction material, brick	92
Hardware, nails	143
Screws	1
Commerce and Industry	
Hunting, lead shot	2
Unknowns	
Glass	22
Metals, Ferrous	19
Lead	11
Organics, Bone	31
Wood	33
Stone, Agates	2
Fire cracked rock	3

Assemblage 3: House fill

4296 artifacts were recovered from the house fill representing eighteen functional categories (table 3). This assemblage is a mixed fill unit from intensive surface scatters. It was not possible to distinguish between interior and exterior. After the 1861 flood lifted and floated the house away, the surface scatter would have been washed into the house area, making activity area distinctions impossible. Despite being below the plow zone, the majority of artifacts were very fragmented. It was not possible to determine a horizontal stratigraphy that corresponded to unique occupation periods. However, key artifacts were datable. The most useful artifact for dating at the site was transferprint ceramics, which have known periods of manufacture. Other artifacts used to date the site include other patterned ceramics, such as ironstone, an inkwell, and bottles. Artifacts found within postholes and post molds were included with the house fill

Personal items recovered include fragments from shoes, buttons, trade rings, beads, and watch keys. . An earthenware broach with gilded brass leaves was also recovered (Fig. 38). No other similar forms of jewelry have been recovered like this from the French Prairie area. Buttons ranged from common white shirt buttons to fancy pressed glass women's dress buttons (Fig. 39, 40, and 41). The beads were a Russian trade style and the rings were brass. Both of these items are found at Fort Vancouver and were common decorative items during the fur trade era. The watch keys recovered are also not common items. Very few people had time pieces (although we know from tax records

that Newell owned watches and a clock). The watch keys speak to a greater affluence than commonly found on French Prairie. 282 fragments of clay pipes were recovered. Several pipe patterns were identifiable and date to the first half of the nineteenth century.

Domestic items recovered include tin cans, ceramics, glass tumblers, inkwells, and sewing supplies. These items are all consistent with a 19th century domestic housed hold. Two tin cans were recovered. They were made with a very early can technology, which includes lead seams. These could be some of the earliest cans recovered from the Pacific Northwest.

1363 fragments of ceramics were recovered. The ceramics are all consistent with domestic use (see table 5 and 6). Many of the transferprint ceramic patterns are the same as those found throughout French Prairie and at Fort Vancouver (see table 5). Some of the patterns are exclusive to the Newell site however. Many of the unique patterns found date from before the Robert Newell occupation beginning in 1843. It is probable that these ceramics came from a source other than the dominant Hudson's Bay Company. Ceramic inception dates are consistent with a continuous occupation from the early 1830s to the mid 1850s (see table six), with no obvious breaks in occupation.

Both pressed glass and leaded glass tumblers were recovered from the site. The leaded glass tumblers are not an item commonly found on French Prairie and once again speak to a household with a higher economic status. The pressed glass tumblers would have been a less expensive option.

Several inkwells were recovered. The earliest inkwell dates from 1830-1834 (Fig. 42)(Van der Bossche 2001: 364). Several other umbrella style inkwells were also found. Literacy was unusual among the French Canadians in the area, and no other inkwells have been recovered from French Canadian sites (Brauner personal communication). This indicates that the occupants of 35MA41 were literate (which we know Ball and Newell to be) but that they had a higher economic status that came with education.

Other domestic items recovered that speak to the ubiquitous 19th century women's chore of sewing were thimbles and brass straight pins. Due to their very fragile and small nature we are fortunate that they were preserved.

Many faunal remains were recovered from 35MA41. All of the faunal remains from culinary cuts of meat are from domestic animals, including sheep or goat, cow and pig. The only wild animal remain recovered from the site is a single deer antler. Faunal remains also indicate that the animals were being butchered on site, which is consistent with 35MA41 being a working farm. For full faunal analysis see appendix C.

Table 3. House fill assemblage.

Personal Items	
Clothing, buttons	15
Footwear, shoes	5
Adornment, beads	6
Broach	1
Ring	2
Indulgences, pipes	95
Alcohol bottles	282
Pastimes, watch keys	1
Penknife	1
Domestic Items	
Furnishings, escutcheon	1
Brass knob	1
Housewares and appliances	
Culinary, lead can	50
Tin can	1
Gustatory, ceramics	1363
Tumblers	98
Utensils, knife	1
Fork	1
Portable illumination	20
Home education, inkwells	19
Slate fragments	8
Cleaning and maintenance, sewing, needle	3
Straight pins	5
Thimbles	2
Architecture	
Construction Materials, brick	309
Mortar	13
Hardware, nails	1199
Hinge	1
Screws	4
Spike	1
Commerce and Industry	
Hunting, flintlock	1
Lead shot	4
Unknowns	
Glass	439
Metals, ferrous	114
Lead	60
Organics, bone	273
Wood	64
Stone, agates	14
CCS	23
Fire cracked rock	177

Figure 38. Earthenware broach with gilded brass leaves.

Figure 39. Dress buttons and brass ring.

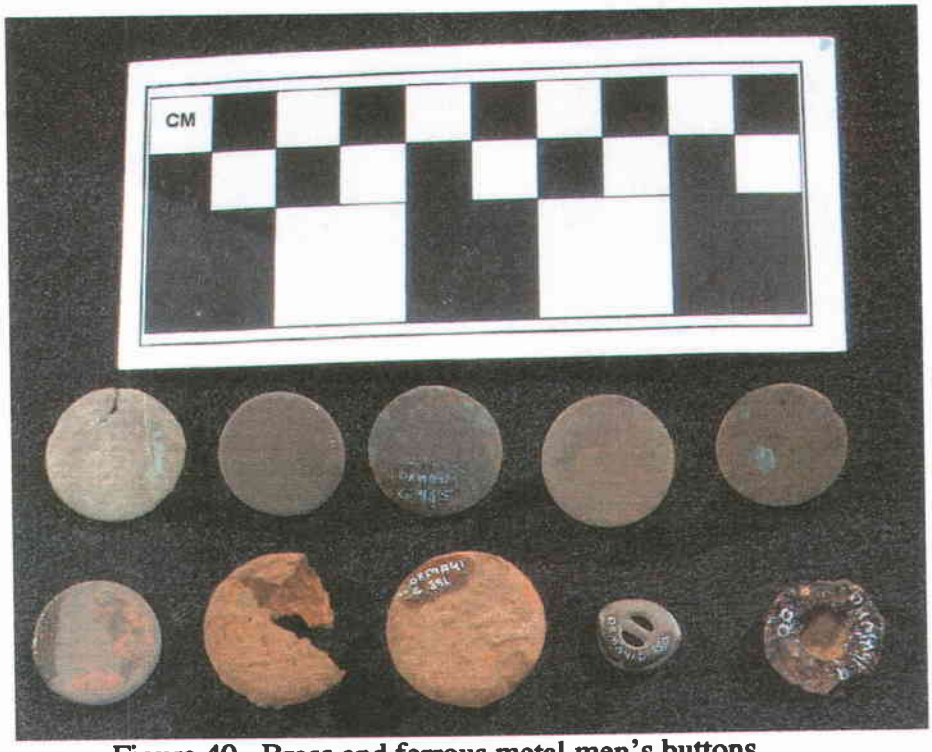


Figure 40. Brass and ferrous metal men's buttons.

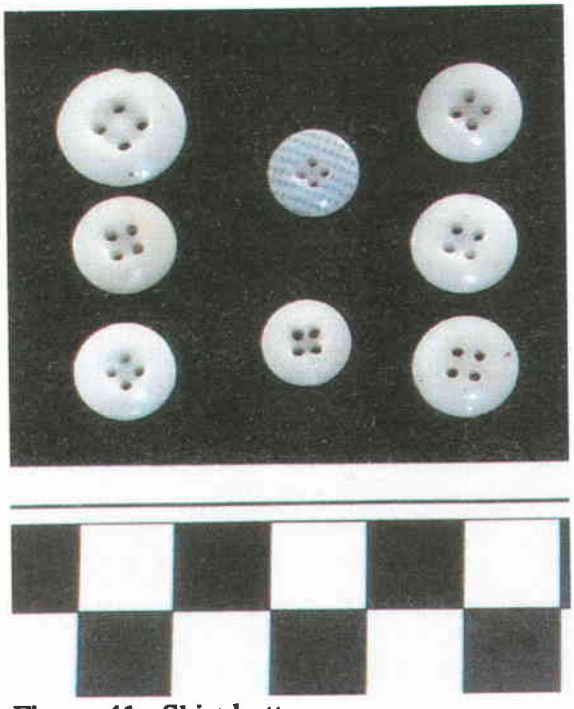


Figure 41. Shirt buttons.

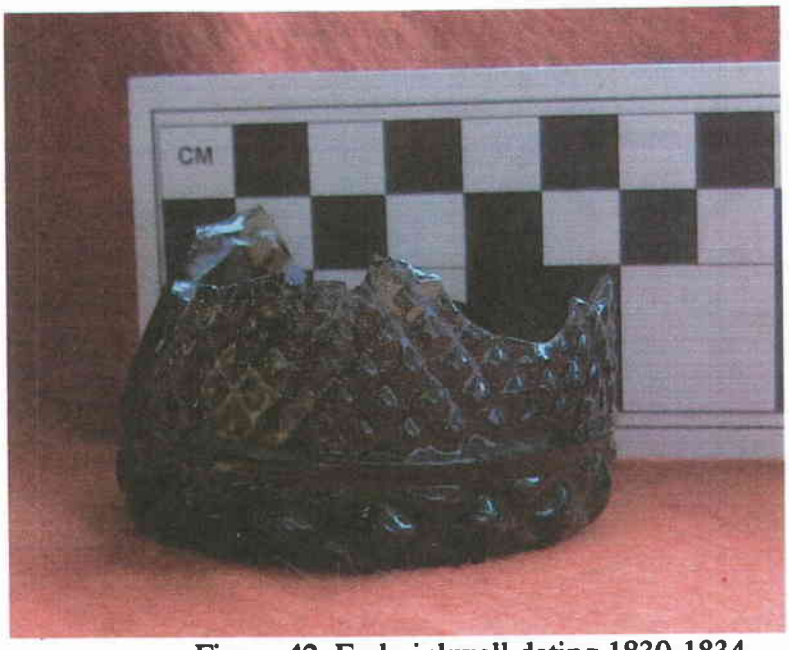


Figure 42. Early inkwell dating 1830-1834.

Assemblage 4: Plow zone

2,680 artifacts were recovered from level 1. Level one consists of the plow zone, or top 30-40cm of soil, depending on the slope, which have been seasonally plowed for agricultural purposes. Due to the plowing activity the artifacts contained within the plow zone have been severely fractured, and features extending into the plow zone have been obliterated. It is not possible to distinguish horizontal stratigraphy within this area.

The artifacts from the plow zone represent sixteen functional categories (see table 4). The artifacts are a cross section of domestic and personal items, consistent with the rest of the site's house fill. This includes ceramics, beads, buttons, alcohol bottles, bone and wood. 256 brick fragments were incorporated within the plow zone, concentrated around the area of the rubble pit. 759 nails were recovered from the plow zone. The most unique item found within the plow zone is a ceramic marble, the only artifact identifiable as a children's toy.

Table 4. Plow zone assemblage.

Personal Items	
Clothing, buttons	6
Adornment, bead	1
Ring	1
Indulgences, pipes	62
Alcohol bottles	184
Pastimes, marble	1
Watch key	1
Domestic Items	
Gustatory, ceramics	777
Tumblers	88
Utensils, fork	1
Portable illumination, hurricane	3
Home education, slate	9
Architecture	
Construction materials, brick	256
Hardware, nails	759
Screws	1
Commerce and Industry	
Hunting, lead shot	3
Unknowns	
Glass	336
Metal, ferrous	52
Lead	17
Organics, bone	35
Wood	11
Stone, agate	7
CCS	3
Rock	66

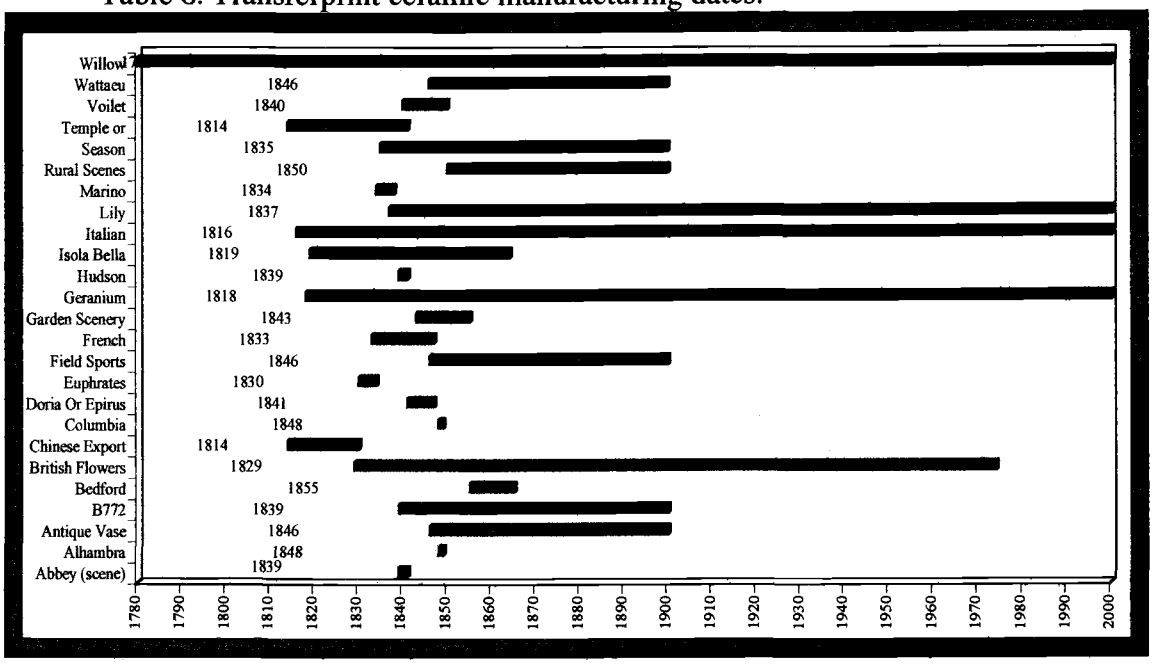
Table 5. Ceramic patterns found at French Prairie archaeological sites.

Pattern Name	Newell	Belleque	Champoeg	Despard	French Prairie	Gervais	Kanaka Village	LaFramboise	Lucier	Methodist Mission	St. Frances Xavier	Fort Vancouver
Abbey Ruins		*	*									
Abbey Scene*	*	*										
Adelaide's Bower			*						*			
Aesop's Fables series			*				*		*			*
Alhambra*	*											
Antique Vase	*	*					*		*			*
Athena			*		*							
Athenian		*						*	*			
B772	*			*			*	*				*
Bedford	*											
Belzoni						*			*	*		
Beverly							*		*			*
Blue Rose		*					*		*			*
Bridge of Lucano									*			
British Flowers	*	*	*			*	*	*			*	*
Broseley			*				*		*	*	*	*
Byron Views			*				*					*
California		*	*			*			*			
Camillia		*					*		*		*	*
Canova			*			*	*		*	*		*
Canovian				*								
Chinese Export	*			*					*			
Chinese Flowers			*	*			*		*			*
Chinese Gardens		*		*					*		*	*
Chinese Pastimes									*			
Chinese Plants		*					*					*
City of Corinth									*			
Claremont		*		*		*	*		*			*
Columbia	*	*	*						*		*	
Convoluvus			*									
Crystal Palace		*	*			*			*			
Cyrene						*						
Damascus					*							
Doria or Epirus*	*											
Drover					*							
Euphrates*	*											
Field Sports series	*		*		*			*	*			
Filigree			*		*		*					*
Florence			*									
Florentine			*			*		*				
Florentine Fountain			*			*		*				
French Radiating Sprigs	*						*		*			*
Friburg			*		*							
Fruit and Flowers							*		*			*
Garden Scenery*	*											
Geranium					*		*					*
Hudson	*		*			*						*
Indostan	*											
Isola Bella	*								*			
Italian Seaport									*	*		*
Italian	*	*	*	*			*	*	*	*		*
Lily	*	*		*		*	*		*		*	*
Macaw/Pagoda				*			*	*	*			*
Marine (Godwin)			*						*			

Table 5 con't.

Pattern Name	Newell	Belleque	Champoeg	Despard	French Prairie	Gervais	Kanaka Village	LaFramboise	Lucier	Methodist Mission	St. Frances Xavier	Fort Vancouver
Marine (Phillips)	*	*	*						*			
Mausoleum									*			
Muleteer									*			
Non Pariel		*										
Palmyra								*	*			
Panama			*						*			
Peacock							*	*				*
Peking					*							
Persian Vase		*	*			*	*	*	*			*
Portland Vase							*		*			*
Raphaelesque				*			*					*
Rhone Scenery							*					
Royal Gem							*		*			*
Royal Star					*							
Rural Scenes*	*											
Scotts Illustrations		*				*						*
Scroll						*	*			*		*
Seasons	*	*							*			*
Seasons Star					*		*					*
Shagreen				*			*		*			*
Siam		*		*					*			
Sirius		*				*		*	*		*	
Sitka			*									
Sower						*				*		
Statice		*							*			*
Swiss				*					*			
Swiss Cottage		*					*		*			*
Temple or Brosely	*											
Tivoli					*							
Tower							*	*				*
Tyrol Hunters				*						*		*
Tyrolean			*		*							
Union Wreath				*			*		*			*
Venetian Scenery		*					*		*			*
Venustus			*	*		*	*	*	*			*
Voilet	*		*						*			
Warwick Groups		*	*				*		*			*
Waterloo									*			*
Watteau	*	*	*				*		*			*
Willow	*	*	*	*		*	*	*	*			*
Willow (Masons)		*		*				*	*			*

Table 6. Transferprint ceramic manufacturing dates.



Chapter 6. Discussions and Conclusions

Oral tradition in the Champoeg area and archival data placed only Robert Newell at the site of 35MA41. The archaeological data tells another story. The data from the site has shown that there was a pre-Newell occupation, which could date from the mid-1830s up until Newell moves to Champoeg in 1843. Ceramic inception dates beginning in the early 19th century show no obvious breaks in occupation or the function of the site. Ceramic inception dates also show that domestic occupation ceased at the site after Robert Newell moves to higher ground and his new house in 1854. Potential pre-Newell occupants have been explored through both historical records and the archaeological record. The strength of the data varies for the occupants, but the data are there.

Two main sets of data were used to reconstruct the settlement history at 35MA41. These included archival data and archaeological data. The two sets of data when combined give a much fuller understanding of the settlement history of the site than either can do separately. The chronology of occupation created from these data sets has created a plausible series of men and their families who could have occupied the site. The dates of arrival and departure from Champoeg also fit together very nicely with the archaeological evidence. A list of possible candidates has been presented in Chapter 3 as the likely occupants at this site.

John Ball

As previously discussed, the first occupant of the site could have been John Ball who arrived at Champoeg in the winter of 1833. Archival data, primarily Ball's own journal, describes him choosing a farm "*a little above Camp Du Sable*" (Hussey 1967: 65). The land to the west of "*Camp du Sable*" already had several French Canadian occupants who had located their cabins on 100-foot rises above the river (Fig. 7). The only remaining land suitable for agriculture with a 100-foot rise for a building location was at 35MA41. This property also had easy access to the Willamette River. This area is bordered on the east by Champoeg Creek. It is unlikely that Ball settled on land to the east of Champoeg creek. The land to the east of the creek takes a steep rise away from the river and is typically rocky soil unsuitable for farming (Brauner personal communication).

At his farm " *a little above Camp Du Sable*", Ball built a log cabin with a peeled cedar bark roof that was tied to the rafters with wood string (possibly a cedar bark cordage)(Ball 1925: 95). This type of construction would not have required the use of nails, which at the time would have been hand wrought by a blacksmith, and likely costly. The lack of hand wrought nails is consistent with the data from the site; only three hand-wrought nails were recovered, representing 0.001% of the total nail sample. A footprint for an early cabin cannot be established conclusively as the entire cabin was made from organic materials, as described previously in John Ball's journal, and subsequent occupants modified the building.

Since Ball constructed a building, which left little in the way of architectural features such as nails or window glass. We must rely on archival data and non-architectural artifacts to make a case for an 1833-1834 occupation.

We know very little about the possessions John Ball had with him in the Oregon Country. What we do know is that he had access to the goods of Nathaniel Wyeth, because he traveled on the expedition with him. However, Wyeth was depending on his supply ships and a minimum number of items were carried overland. We also know that Ball stayed at Fort Vancouver where he taught school and would have had access to the Hudson Bay Co. store. He also obtained all of his farming implements from the Fort when he left to set up his farm. It seems reasonable that he would have obtained a few domestic items such as ceramics when outfitting his farm. Even with this access to goods, we know that Ball used many organic items for things such as securing his roof or making harnesses for his horses. These types of organics would not show up in the archaeological record. Another difficulty in "seeing" Ball in the archaeological record is that he only stayed at his farm for six months, which leaves a much smaller assemblage than a family with many children would over a ten year time span.

Despite all the difficulties in placing Ball at 35MA41, the archival record and a few key artifacts are significant in supporting John Ball's occupation at 35MA41. An early ink well (Fig. 42) from Coventry Glassworks, Connecticut (Van de Bossche 2001: 364) was recovered. Ball

was literate and kept a journal. It is logical to assume he purchased ink and other writing supplies before traveling to the Oregon Country.

A gin bottle dating from 1780-1830 was also recovered. Neither of these types of items are found in the comparative collections at Fort Vancouver. Since the Hudson's Bay Company was nearly a monopoly in the Northwest at the time, the implication is that the gin bottle and inkwell came into the valley with Ball on the Wyeth expedition.

A distinct set of ceramics with early dates of manufacture was recovered from the site. The patterns include British Flowers, Chinese Export, Euphrates, French Radiating Sprigs, Geranium, Isolla Bella, Italian, Temple or Brosely and Willow (See table 7). Some of these early ceramics do not appear elsewhere on French Prairie or at Fort Vancouver, and could have come overland with Wyeth's party or from one of Wyeth's supply ships.

Ball abandoned his farm at the first available opportunity in September 1833. Having spent the winter ill and socially isolated, Ball returned to America sailing via San Francisco and the Sandwich Islands (Ball 1925: 99).

Table 7. Ball Assemblage of datable artifacts

Pattern Name	Inception Dates	Termination Dates
British Flowers	1829	1974
Chinese Export	1814	1830
Euphrates	1830	1834
French Radiating Sprigs	1833	1847
Geranium	1818	2000
Isola Bella	1819	1864
Italian	1816	2000
Temple or Brosely	1814	1841
Willow	1780	2000
Inkwell	1810	1835
Gin bottle	1780	1830

Nathaniel Wyeth

In 1834 Nathaniel Wyeth decided to start a second farm enterprise on French Prairie. He selected a spot below "Dupatty's" [Jean Baptiste Desports McKay](Fig. 7), with a good millstream, just above Sandy Camp (Hussey 1967: 60). This description exactly fits Ball's description of his farmstead. It is also important to note that while Wyeth describes the beginning of farming in the area, he never once mentioned the need to build a cabin or barn for his caretakers in residence. This implies that there was an existing structure available for use. It seems only logical that he would have taken advantage of Ball's abandoned cabin, barn and fenced fields. It certainly would have saved Wyeth a great deal of work and money.

Wyeth installed a series of caretakers at this farm over a two-year period, before abandoning his holdings in the Oregon Country in early 1836. No archival data is available about the architecture of the structure that Wyeth's caretakers lived in. Even if Wyeth had built another cabin it would not have left any more of an archaeological foot print than John Ball, as machine cut nails were still not available during his period of time (Brauner 1987: 15-16).

The ceramics dating from the Wyeth occupation include most of the potential ceramics from Ball's occupation, since the source for them would have originally been the Wyeth expedition. In addition to the Ball ceramics we recovered, the Marine or Marino pattern, which was manufactured after Ball left (see table 8). However, it could have arrived in Oregon via Wyeth's

supply ships before Wyeth abandoned his interests in the Oregon Country. The one early artifact that was probably Ball's and not from Wyeth's caretakers is the inkwell. It is known that Ball was literate and kept a journal, but it is unlikely that the farm tenants were literate.

Due to illness and a poor outcome with his business ventures, Nathaniel Wyeth returned to America in early 1836, abandoning all of his ventures in the Oregon Country (Winther 1950: 94).

Table 8. Potential Wyeth transferprint ceramic

Pattern Name	Manufacture Inception date	Manufacture ending Date
British Flowers	1829	1974
Chinese Export	1814	1830
Euphrates	1830	1834
French Radiating Sprigs	1833	1847
Geranium	1818	2000
Isola Bella	1819	1864
Italian	1816	2000
Marino	1834	1838
Temple or Brosely	1814	1841
Willow	1780	2000

William Johnson

William Johnson arrived on French Prairie in 1836 after retiring from the Hudson's Bay Company. Johnson's home was "at the mouth of Champoeg Creek". John Wilkes wrote a first hand account of Johnson's cabin on a visit to the Oregon Country in 1837. Wilkes who approached the cabin from the Willamette River wrote, "to reach his dwelling, we passed through water over our shoes" (Wilkes 1975: 102), which puts the cabin on a slight rise. To get to 35MA41 from the Willamette River one must traverse a swale that would have held water much of the year. Johnson also had forty acres under cultivation as well as a kitchen garden and livestock. Another visitor in 1839, Thomas Jefferson Farnham described Johnson as a neighbor of Thomas McKay, who ran a gristmill on Champoeg Creek (Farnham1843: 88). Johnson's forty acres would have been on the western side of the creek, for the same reasons noted in the Ball discussion, placing him at 35MA41. Johnson lived on his farm with his native wife, children and two native slave boys (Wilkes 1975:104).

Farnham described Johnson's cabin in as a "*good shantee*", of hewn logs, about twenty feet square with a mud chimney, hearth and fireplace (Farnham1977: 88). The mud chimney refers to the common practice of using wattle and daub to form the firebox and chimney. It is believed that subsequent occupation and renovations at 35MA41 removed the wattle and daub, which would decompose in the soil, becoming quickly undetectable in the archaeological record. Wattle and daub fragments have been recovered from

the contemporary Willamette Mission site. However, because the Mission was abandoned in 1841 and not reoccupied, the wattle and daub chimney was never replaced (Sanders, Weber and Brauner 1983: 196).

Farnham described the interior floor being covered with flag mats, which was a Native American practice of using woven tule or reed mats as covering for a clay floor (Farnham 1877:88). Remnants of a clay floor were discovered south of the hearth feature.

No mention of windows or window coverings was made in the archival records. It is possible that Johnson could have obtained window glass toward the end of his occupation. Flat glass was recovered from the Willamette Mission site, which was abandoned in 1841 (Sanders, Weber and Brauner 1983:158). The Mission site indicates that window glass was available to residents of French Prairie prior to 1841.

Archaeological evidence for architectural features of Johnson's cabin would be limited. Post-holes from the post-in-ground construction method could mark the location of Johnson's cabin. Wattle and daub from the chimney and firebox are materials, which would easily re-incorporate into the soil, leaving little or no trace. A remnant of a clay floor was uncovered. The floor was only partially preserved, due to much of it being reincorporated into the soil matrix. Because of this we are unable to estimate the size of the original clay floor and cabin. However, the remnant of the clay floor is consistent with the descriptions of Johnson using flag matting on his flooring. The main impact Johnson left was in the form of artifacts at the site.

William Johnson was also an ex-employee of the Hudson Bay Company and likely would have gotten most if not all of his supplies from Fort Vancouver. The length of Johnson's stay, and the size of his family would have made a larger impact on the archaeological record than previous occupants. The fact that Johnson had a family increases the number of items potentially consumed by the household, but the number of children in the house would increase the rate of breakage as well. The archaeological data supports this larger presence. A larger number of datable ceramics were found embedded in the clay floor.

When Wilkes visited the cabin he noted the presence of a picture of the USS Constitution hanging on the wall. As a young man Johnson had joined the US Navy during the war of 1812, fighting on the USS Constitution during the engagement with the *Guerriere* (Hussey 1967: 76). Three fragments of a white kaolin pipe bowl with a "TD" with stars surrounding the "TD" were recovered. This pipe was produced as a patriotic American product commemorating the war of 1812 (Spuelda 1989: 44). It is possible, like many war veterans, that Johnson purchased this commemorative item, just as he displayed his picture of the USS Constitution.

Many of the transferprint ceramic patterns recovered at 35MA41, which date from the period when Johnson was on French Prairie, were short-lived patterns, giving very tight occupation dates. There are also other patterns with longer periods of manufacturing that overlap the Johnson occupation. The ceramic glazes indicate they are from the earlier period of manufacture.

The reason for this is that while the patterns were used for many years the glazes were changed from a pearlware glaze (a clear glaze with a distinctive blue or greenish cast) to a harder clearer glaze after the 1840s (Spuelda 1993: 66). Many of the patterns found at 35MA41 are associated with the pearlware glaze. These ceramics include Hudson, British Flowers, Indostan, Columbia, Lily and Voilet. Plain white earthenware and white ironstone ceramics with pearlware glazes were also recovered.

Another group of ceramics with earlier dates (i.e. 1830s-1840s) are the hand painted wares; Gaudy Dutch or Cottage Ware and edge decorated wares, such as featheredge and shell-edge. Edge decorated wares were the most commonly made wares to use a pearlware glaze. They were also the most inexpensive utilitarian ware through the 1850s, although they had been available since the late eighteenth century (Spuelda 1993:71). Gaudy Dutch is another early ceramic with a distinctive hand painted design of simple flowers in bright pinks, blues and greens.

William Johnson left the Champoeg area for unknown reasons in 1842 (Hussey 1967: 78).

Walter Pomeroy

Archival data shows that Walter Pomeroy owned the land briefly before Robert Newell purchased it. There is no evidence that Pomeroy ever occupied 35MA41, and therefore he would not have left any archaeological evidence at the site before he sold the land to Robert Newell in 1843 (Hussey 1967: 107).

Robert Newell

When Robert Newell settled at Champoeg he was fresh from a brief stay at Oregon City after spending a very soggy year on the Tualatin Plains in a perpetually leaky wigwam. The type of dwelling that had served him well in his years in the Rockies as a fur trapper was inadequate for the climate of the Willamette Valley (Delemarter 1951: 38). Due to these confined quarters it is unlikely that Robert and Kitty Newell had extensive breakables in there living quarters. Kitty's influence seems to have also been strong in the household since they were still living in a wigwam after he decided to settle down. It is possible that when they moved to Champoeg Kitty had different ideas about what was needed in a household inventory, particularly for a transitory lifestyle and the need to transport smaller amounts of material goods.

It seems that Kitty had been chronically ill since the Newell family moved to Champoeg. In 1843 Newell sent two of his boys to live with another family (Delemarter 1951: 90). By 1845 Kitty was pregnant with her fifth son. She died two months after his birth. This means that Kitty was only at

35MA41 for less than two years. Newell remarried six months after Kitty's death to Rebecca Newman, an American girl, in June of 1846 (Delemarter 1951: 202). Rebecca lived at the site for nine years before moving to their new home on higher ground. Therefore, I believe that more of the ceramics would reflect Robert and Rebecca Newell's taste, rather than Robert and Kitty Newell. On the other hand I like to think that the Russian Trade Style beads recovered represent personal items associated with Kitty or her sons.

There are no first hand descriptions of Robert Newell's first home in Champoeg. Written records have focused on Newell's second home built on higher ground. However, the 1844 tax roll lists a few material items, clocks and watches and livestock on the farm (Delemarter 1951: 84). Two watch keys were recovered from the site, probably belonging to Robert Newell. Faunal analysis of the site (See appendix C) shows that the meat being consumed at 35MA41 was from entirely domesticated stock, primarily sheep (or goat), pig and cattle.

Newell's residency was the last and longest occupants at the site, and has had the most impact on the site. There are no archival records describing Newell's first home site at Champoeg. The only evidence we have for his dwelling is through the archaeological record. The author believes that the data from the site indicates that Robert Newell did extensive renovations of the cabin left by Johnson. It is believed that Newell replaced the wattle and daub chimney with a brick oven and hearth firebox as well as laid down a wooden floor south of the hearth. The amount of brick found at the site indicates that a

board chimney not a brick chimney was used. This would also account for the firebox remaining intact, when the house was destroyed (Brauner personal communication).

Like Johnson the large number of Newell's children living at the site (he had a further eleven children with Rebecca) would have greatly increased breakage and deposition of material goods around the house. The objects most likely associated with children's activities would be the ceramic marble and the fragments of slate and slate pencils. Robert Newell was known to have loved literature and founded the Oregon Lyceum, a literature and debating society (Elliot 1908:109). Education of his children would have been a high priority.

There were also some items that would have fallen into the realm of female chores. Most distinctly would be the brass thimbles and brass straight pins, which were recovered. Sewing was a distinctly female pursuit in the early nineteenth century.

The author believes that when Robert Newell moved to Champoeg he installed a wooden floor in his home. After the wetness and illness of the previous two years, I believe that a wooden floor would have been a priority for Newell and his family. Evidence of the wooden floor can be found south of the hearth where large concentrations of early artifacts were embedded into the clay floor. The wooden floor would have been placed over the artifacts at the time the hearth was constructed. This would have put the wooden floor at a slightly higher elevation than the surface of the hearth. The presence of a wood floor also explains the lack of dispersal of later artifacts found in or on

the clay floor. No actual evidence of the floor itself would remain however because it would have been swept away in the flood event of 1861 along with the rest of the structure, with the exception of the hearth and firebox..

All of the machine cut nails recovered from the site represents building done during Robert Newell's occupation. Machine cut nails were not available in the Champoeg area in until 1843 (Brauner 1987: 15-16). Newell's access to machine cut nails in 1843 leaves a much larger archaeological impact than the previous methods of construction employed at the site.

Figure 23 shows an artifact distribution extending to the northeast of the post found in situ. The dispersal of artifacts to the northeast shows a much higher frequency. This may possibly indicate an exterior wall. It is very common for exterior surfaces to have a much higher frequency of artifacts (Brauner personal communication). Also associated with flat glass (which probably represents window glass), which is evidence of improvements to the house.

In 1853 a flood inundated Champoeg, and was the likely cause of Newell's move to higher ground. The termination of ceramic inception dates coincides with Newell's move to his new home on higher ground. At this time Newell sold his bottomlands to Donald Manson along with a piece of land on high ground for building. Manson purchasing the land with a higher building site supports the hypothesis that the farmstead on the flood plain was abandoned by 1854. The 1853 flood may have even rendered Newell's first house unfit for re-occupation. The house remained vacant until the 1861 flood when

floodwaters carried the structure away leaving the hearth remaining. Demolition of the hearth and disposal of the brick are dated with the Catawba wine bottle. As with the other occupants of 35MA41 a considerable assemblage of transferprint ceramics can be formed that coincide with Newell's occupation dates is that there are no pattern inception dates after 1855, when Newell was known to have left his house on the lower terrace for the new house on the hill. This indicates that the site was abandoned for domestic use and Manson built his house on the section of land on the higher terrace that Newell sold to him along with Newell's bottomland.

Settlement Model

The settlement model that I have proposed for site 35MA41 is a working hypothesis for the settlement of a previously unknown early occupation and continued residency. The artifacts and architectural remains recovered from the site show an antiquity that could go as far back as the early 1830s. Newell's transitory life as a fur trapper did not lend itself to owning large amounts of fragile objects, such as ceramic, so these artifacts had to come from someone else. This leads to the question, who did create the early assemblages recovered from 35MA41?

In the early 1830s French Prairie already had a number of French-Canadian settlers living along the Willamette River. The area around Champoeg Creek was the last open ground along the Willamette River that had not yet been settled, with a rise above the 100-foot line. The well-known sandy soils at Champoeg, and the tendency to flood probably contributed to the turnover in

property that was poorly suited for agriculture. The turnover in property also coincides with the 10-year flooding cycle. The relative stability of farm ownership on French Prairie (until the 1849 California gold rush) was in sharp contrast to that at Champoeg. 35MA41 may well have been one of few properties on French Prairie continually available for residency.

A series of property owners have been hypothesized for 35MA41, based on archival and archaeological evidence. Available archival information for these occupants is consistent with the topographical description of the site of 35MA41. I do not believe that the sequential nature of the proposed occupancy is coincidental (see table 9). The archaeological record supports the archives with key artifacts. These include the very early Connecticut inkwell, the early gin bottle, the commemorative pipes and ceramics discussed earlier in this chapter.

The hypothesis of the earlier occupancy of Ball and Wyeth are not as strong due to brief residency and the organic nature of architectural building materials. There is evidence of a very early occupation by someone at 35MA41. The hypothesis of William Johnson's occupancy is much stronger, due to more detailed archival descriptions of the Johnson home, which correlate with the archaeological record. The most significant of these is the remnant clay floor. A significant number of artifacts dating prior to the Newell occupancy confirm that someone was living at 35MA41 prior to Robert Newell.

Further excavations at 35MA41 have the potential to uncover the entire structure of the house, giving the dimensions of the dwelling. There is also potential to identify exterior activity areas and outbuildings. Further artifact recovery could also shed more light on the occupation sequence.

Table 9. Proposed occupants at35MA41

Property Owner	Time Period
John Ball	1833
Nathaniel Wyeth (tenants)	1834-1836
William Johnson	1836-1842
Pomeroy (non-occupant)	1842
Robert Newell	1843-1854
Donald Manson (non-occupant)	1854-1880

Recommendations

It is clear that more archaeological work needs to be done at the site. The Newell farmstead is unusual in its integrity and depth of deposition. It is the first early historic site with intact features found on French Prairie, with the exception of the Jason Lee Mission. This is due to its position on an active flood plain, which has preserved both the features and many faunal remains. We have only begun do discover what this site could tell us about early nineteenth century settlement on French Prairie.

It is clear from the data that entire extant of the structure has not been excavated. In fact we are only now beginning to see a pattern of postholes and artifact distributions that could potentially be outlining the exterior of the structure. While this site has been rich in artifacts we have yet to see a full picture of artifact distribution. Artifacts do not generally accumulate inside of a house, especially one with a wooden floor. Artifact frequencies tend to pick

up greatly on the exterior edges of a house. We have begun to see this pattern in the northeast corner of the block excavation. With more excavation it could be possible to find the dimensions of the exterior of the house, as well as recover substantial amounts of artifacts relating to domestic life.

Because the entire structure has not been excavated at this point, we do not understand the pattern and significance of the post-hole positions in relationship to the site. Until further excavation is done the significance of the post-hole patterns will not be known. The combination of artifact distributions and posthole patterns could give a very good idea of the size of the structure, and possibly to interior activity areas as well.

Recent work at the site has focused on the house. Archival data indicates that all of the proposed occupants of the site had a barn and extensive outdoor activity areas. None of these structures or activities areas have been located and identified at this site yet. Because of the depth of deposition at this site the potential of identifying these outlying activity areas is very high. The significance of this cannot be underestimated, as this site is the only one of its kind and antiquity to be known to have this potential on French Prairie. The potential for understanding activity areas and possibly exploring gendered activities, as well as children's activities is also very high, and unique. The hearth and home has traditionally been a female's domain while the outbuildings were a male domain. Finding these outside activity areas may show a contrast with the interior material culture and allow inferences about gendered activities to be made.

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Appendix A

Functional Typology

APPENDIX A

Typology 35MA41

I. Personal Items

A. Clothing	N
Buttons, total	19
Buttons, brass, plain	6
Buttons, ferrous metal	2
Buttons, glass, white, four holes	7
Button, glass, black, pressed design	1
Button, glass, black, wound with brass loop	2
Button, copper	1
Button, copper, cut design, gilded	1
Button, glass, Amethyst, nailhead design	1
B. Footwear	
Shoe	
Heel/Sole	3
Fragment	2
Eyelets, leather and brass	3
C. Adornment	
Beads	
Russian Trade Style, blue glass	7
Russian Trade Style, white glass, opaque	1
Seed, green glass	1
Brooch, earthenware center, gilded wire	3
Ring, brass	3

D. Body Ritual and Grooming	N
Brush, wood	1

E. Indulgences

Pipes

Pipe Bowls, white kaolin		38
Pipe stems, white kaolin		121
(Minimum vessel=14)		
Pipe bowl, red earthenware, effigy		4
(Minimum vessel=1)		
Pipe bowl, gray fabric, effigy pipe		2
(Minimum vessel=1)		

Alcohol

Case Gin Bottle, olive glass		
(Minimum vessel=1)		122
Wine Bottles		
"Catawba Wine Bitters"		
(Minimum vessel=1)		16
Wine bottles, olive green glass		
(Minimum vessel=6)	finish	5
	Neck	17
	Shoulder	19
	Body	436
	Kick up/Base	12

E. Pastimes

Marble, porcelain, white with stripes	1
Pocket tools and accessories	
Watch keys	2
Penknife	
Side panel, brass	1
Knife blade, brass	1

II. Domestic Items

A. Furnishings

Furniture		N
Escutcheon, brass		1
Brass knob, screw type		1

B. Housewares and Appliances

Culinary

Baking sheet, ferrous metal		1
Lead can	fragments	50
Hook, ferrous metal (for hanging pot)		1
Oven door, ferrous metal		1
Stove pipe		1
Tin cans, lead seals		2

Gustatory

Ceramics

Earthenware, transferprint

"Abbey (scene)" Blue		
(minimum vessel=1)	Base	1
	Body	14
	Footring	2
	Rim	6
"Alhambra" Blue		
(minimum vessel=1)	Body	12
"Antique Vase" Blue	Body	4
(minimum vessel=1)	Rim	3
"B772" Flowing Blue	Body	12
(minimum vessel=1)	Footring	2
	Rim	12
"Bedford" Blue	Rim	2
(minimum vessel=1)		

		N
"British Flowers" Blue	Body	26
(minimum vessel=1") Base		13
	Rim	7
"Chinese Export" Blue	Rim	2
(Minimum vessel=1)		
"		
Columbia" Blue	Pedestal base	1
(minimum vessel=1)		
"Doria" or "Epirus" Blue	Body	4
(minimum vessel=1)	Rim	2
"Euphrates" Blue	Body	1
(minimum vessel=1)	Rim	1
"Field Sports" Blue	Base	2
(Minimum=1)	Body	5
	Rim, scalloped1	
"Field Sports" Green	Body	21
(minimum=1)	Foot ring	1
	Rim	1
"French Radiating Sprigs" Flowing Blue		
(minimum vessel=1)	Body	2
	Rim	5
"Garden Scenery" Blue	Base	4
(minimum vessel=1)	Body	11
	Rim	12
"Geranium" Blue	Body	1
(minimum=1)	Rim	1
"Isola Bella" Blue	Body	1
(minimum vessel=1)	Rim	2
"Italian" Blue	Body	2
(minimum vessel=1)	Base	1
	Rim	1

		N
"Lily" Blue (Minimum=4)	Base	3
	Body	58
	Footring	4
	Handle fragment	1
	Rim	13
"Marine" or "Marino" Blue, (Minimum=1)	Body	25
	Rim	7
"Ruins" Blue	Body	1
"Rural Scenes" Blue (Minimum vessel=1)	Body	3
	Rim, scallop	3
"Seasons" Blue (Minimum vessel=1)	Body	12
"Temple" Blue (Minimum vessel=1)	Rim	1
"Watteau" Blue (minimum vessel=1)	Body	1
	Rim	2
"Willow" Blue (minimum vessel=1)	Rim	1
Unidentified Blue		69
Earthenware, red transferprint		
"Hudson" (minimum vessel=2)	Body	5
	Rim	3
"Indostan" (minimum vessel=1)	Body	5
	Footring	2
	Rim	9
Unidentified	Body	24
	Footring	8
	Rim	2
Earthenware, green transferprint		
"Field Sports" (minimum vessel=1)	Body	9
	Footring	1

		N
Unidentified	Body	4
Earthenware, brown transferprint		
Unidentified	Body	3
	Rim	1
Earthenware, mulberry transferprint		
Unidentified		2
Earthenware, purple transferprint		
"Hudson"	Body	4
(minimum vessel=1)	Rim	1
"Voilet"	Base	3
(minimum vessel=2)	Body	24
	Footring	1
	Rim	8
Gaudy Dutch, hand painted		
	Body	16
	Footring	3
	Rim	1
Earthenware, Featheredge Patterns, blue		
(Minimum vessel=11)		
Shallow bowl, "Chicken foot"		
	Base	22
	Rim	15
Shallow bowl, "Chicken foot"		
	Rim	7
Serving bowl, impressed lines, Feathered rim, oval, 3" deep		
	Rim/body	5
Scalloped rim, impressed lines, feathered rim		
	Rim	4
Shallow bowl, impressed parallel lines, feathered rim		
	Rim	5

			N
Impressed "Chicken foot", lateral rim painting			
		Rim	2
Impressed parallel lines, lateral rim painting			
		Rim	5
Feathered painting			
		Rim	14
Mochaware			
Red ware fabric, banded in yellow, brown, blue, white			
		Body	5
White fabric, banded blue			
	Bowl, 6-inch diameter		
		Body/Rim	2
		Foot ring	1
	Fragments	Body	38
		Rim	20
White Fabric, banded with yellow, blue, brown, white, tan and green		Body	43
		Rim	7
Yellow fabric, banded in white and blue			
		Body	2
Yellow fabric, blue tree pattern		Body	1
Yellow fabric, green tree pattern,		Body	1
White earthenware, pearlware glaze			
		Body	1
		Base	1
		Footring	36
		Molded frag.	2
		Rim	2

			N
White earthenware, undecorated			
	Base		25
	Body		986
	Footring		35
	Handle	5	
	Rim		74
Yellow earthenware, undecorated			
	Base		7
	Body		54
	Rim		1
Ironstone			
"Sydenham"	Body		4
(Minimum vessel=1) cup	Base		1
	Rim		3
"Classic Gothic"	Body		1
(Minimum vessel=1) cup	Base frag.		1
	Rim		2
Unidentified	Base/footring	4	
(Minimum vessel=7)	Body		38
	Rim		29
Porcelain, gray fabric, ginger jar			
(Minimum vessel=1)	Body		93
	Lid		16
Porcelain, white fabric,			
(Minimum vessel=2)			
"Chrysanthemum"	Body		1
Unidentified	Rim		1
Stoneware, buff fabric salt glaze exterior, crock			
(Minimum vessel=1)	Base		2
	Body		7
	Lid		1
Stoneware, red fabric, glazed interior and exterior			
(Minimum vessel=1)	Body		6
	Rim		2

Stoneware, red fabric, salt glaze in interior, crock		N
(Minimum vessel=1)	Base	4
	Body	26
	Rim	4
Lead Crystal Tumblers		
(Minimum vessel count=6)	Base	10
	Body	60
	Rim	2
Pressed Glass Tumbler		
(Minimum=2)	Base	2
	Body	10
	Rim	13
	Burned base	1
	Burned rim	3
Utensils		
Bone handle knife		1
Fork		2
Portable Illumination		
Hurricane glass, clear, curved	Body	17
	Rim, fire polished	11
Home Education		
Inkwells		
Aqua, molded panels		
(Minimum vessel=3)		6
Olive green, molded panels, hand blown		
(Minimum vessel=1)		12
Olive green, pressed glass pattern, hand blown		
(Minimum vessel=1)		1

	N
Slate fragments	14
Slate pencil fragments	3

C. Cleaning and Maintenance

Sewing	N
Needle fragment, ferrous metal	3
Straight pins, ferrous metal	4
Straight pins, brass	3
Thimbles, brass	2

III. Architecture

A. Construction Materials

Brick fragments	659
Mortar fragments	14

B. **Hardware**

Nails, machine cut, whole and fragments	2104
Nails, hand wrought	3
Hinge, brass	1
Screws, hand wrought	6
Spike	2
Washer	1

IV. Commerce and Industry

A. Hunting

Flintlock	1
Lead shot, total	9

Unknowns, by material type

		N
Glass		
Aqua		
Curved		151
Flat		16
Bottle Neck/Shoulder		1
Amber, bottle		
(Minimum vessel=1)		
Curved		26
Clear		
Burned		36
Curved		96
Flat		376
Olive, light, bottle, curved		20
(Minimum vessel=1)		
Pale green, frosted, bottle, molded		
(Minimum vessel=1)	Body	53
	Finish	1
	Molded	1
Metals		
Ferrous metal		182
Strapping		2
Barrel hoops		5
Hand forged		1
Lead fragments		86
Lead with "RK" molded into top		1
Unknown sheet metal, white metal		2
Organics		
Bone Fragments		343
Wood Fragments		111
Stone		
Agates		23
CCS		26
Fire Cracked Rock		247

Appendix B

Material Culture Descriptions

APPENDIX B

Material Culture

The material remains recovered from 35MA41 were organized for analysis using the functional classification scheme developed by Roderick Sprague (1980).

I. Personal Items

A. Clothing

Fasteners

Buttons: A total of nineteen buttons were recovered from 35MA41 in the 2002 and 2003 field season. Material types included brass, ferrous metal, ceramic and glass. Six brass buttons were recovered, with plain fronts and loop shanks soldered onto the back. Similar buttons were recovered from the town site of Champoeg and were believed to have originally been gilded. These buttons were at their peak of popularity between 1830-1850 (Spuelda 1988:37).

Two hollow ferrous metal buttons, made from two pieces were recovered. Most likely they had applied shanks, which are not present. Another ferrous metal button was recovered, but is severely corroded making it unclear if a shank or holes were present for fastening (Fig. 38). Three buttons were of opaque black glass, two-mandrel wound (Fig. 39)(see table 10).

Table 10. Buttons recovered from 35MA41

Type	Quantity	Material	Diameter	Design
Men's coat	6	Metal, Brass alloy	19 mm Or 3/4 inch	Plain brass form with soldered attached shank
Women's Dress	2, one whole, one partial	Black glass, Brass shank	11.56mm Or 1/2 inch	Mandrel Wound, plain spherical
Women's dress	1	Black glass, shank absent	12.8mmx1 1.35mmx4. 8mm	Pressed design, oval shape with raised diamond
Unknown	1	Ferrous metal	16.88mm or 66 inches	Recessed well, but due to corrosion shank type is unclear
Unknown	2	Ferrous metal	23mm or .9 inches	Hollow, two piece construction, possible applied shank absent
Shirt	5	Ceramic, prosser	11mm or .43 inches	Discoid, recessed well, one-piece, four hole, self shank button
Shirt	1	Ceramic, prosser	13.5mm or .53 inches	Discoid, recessed well, one-piece, four hole, self shank button
Shirt	1	Ceramic, prosser	8.9mm or .35 inches	Discoid, recessed well, one-piece, four hole, self shank button
Shirt, Calico	1	Ceramic, prosser	9.7mm or .38 inches	Discoid, recessed well, one-piece, four hole, self shank button white fabric with blue dot pattern
Women's Dress	1 whole, 1 fragment	Amethyst glass, transparent	13.38mm .52 inches	Nailhead pressed glass pattern, embedded wire shank
Unknown	1	Brass alloy	11.7mm or .46 inches	Hollow discoid, with recessed well with bar across central hole to form two hole self-shanking button
Dress	1	Copper, with gold gilding	15.5mm or .61 inches	Cast copper abstract floral design with cross hatched background, soldered applied shank, sewing thread present

B. Footwear

Four pieces of shoe leather were recovered, all of which seem to represent heels of shoes. 02-2673 is relatively intact and measures 66.8mm wide by 63.7mm long by 21mm thick, which represents the full size of the shoe heel. Thirty-four square shoe nails are present, and show a whitish oxidization, indicating white metal nails, not a ferrous metal. They are 1.9mm square and spaced approximately 2.25mm apart. 03-2300 contains two smaller fragments, a partial heel and interior fragment measuring 62.9mm wide by 33mm long by 14mm thick. Twenty nails are present along the heel. They measure 1.8mm square and are spaced 2.5 mm apart. These nails also show a white oxidization, indicating white metal, not ferrous metal. 03-3924 is a small heel fragment measuring 37.5mm long by 9.3mm wide by 4.5mm thick. It has eight round nails present measuring 1mm in diameter and spaced 2.7mm apart. 02-2955 is two leather fragments with brass grommets for reinforcements. The opening measures 4mm in diameter.

Eyelets

Three brass eyelets were recovered. They appear to have small amounts of leather remaining. The most likely represent eyelets from shoes.

C. Adornment

Beads

Nine beads were recovered. Five are a "Russian Trade" type in cobalt blue and two are an opaque blue. They were mold formed and drawn with additional facets ground on the ends. One bead was a partial opaque white "Russian Trade" style, also mold formed, drawn, with ground facets (Fig. 43). One green seed bead was recovered. See Table 11 for measurements.

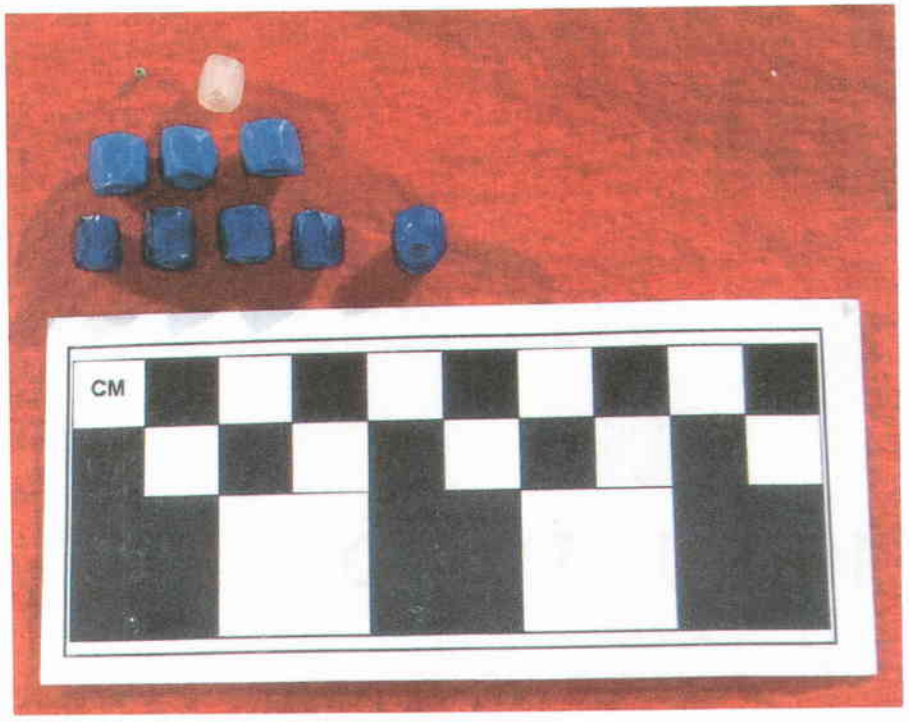

Figure 43. Russian Trade Style beads and seed bead

Table 11. Beads recovered from 35MA41

Type	Artifact Number	Design/Color	Size/Diameter	Description
Russian Trade Style	G-673	Cobalt Blue glass	6.7mm x 6mm	Cane drawn, faceted
Russian Trade Style	02-900	Cobalt Blue glass	7mm x 6.8mm	Cane drawn, faceted
Russian Trade Style	03-1449	Cobalt Blue glass	5.5mm x 7mm	Cane drawn, faceted
Russian Trade Style	03-1542	Cobalt Blue glass	6.2 mm x 6.8mm	Cane drawn, faceted
Russian Trade Style	03-1543	Cobalt Blue glass	7mm x 6.8 mm	Cane drawn, faceted
Russian Trade Style	03-2747	Cobalt Blue glass	7mm x 7mm	Cane drawn, faceted
Russian Trade Style	02-2746	Opaque Blue	7mm x 7.6mm	Cane drawn, faceted
Russian Trade Style	03-1341	Opaque Blue	7mm x 7.6mm	Cane drawn, faceted
Russian Trade Style		White glass, semi-transparent	6.35mm x 5.7mm	Cane drawn, faceted
Seed		Green, opaque	1.38mm dia.	Cane drawn, fire polished

Brooch

A decorative brooch was recovered in three fragments. The center of the brooch is cream earthenware formed into an oval, which is flat on one side and convex on the other. It measures 2.2cm long by 1.7cm wide and .7cm at the center. In the center of the oval there are two holes measuring 2.75mm in diameter, which are spaced 8.5mm apart (Fig. 38). These holes connect a group of brass leaves and wire coils to the ceramic base. The leaves and coils have portions of the original gilding still intact. Two other fragments of a brass and wire frame from that would have surrounded the earthenware were also recovered. The brass frame was also gilded.

Rings

Three trade rings were recovered. One was a whole plain brass band ring, which has been smashed flat (Fig. 39). It measures 2.7cm in length and the band measures 1.65mm in thickness. One is a fragment of a plain brass trade ring. The third is a fragment of a brass ring with a stamped design, which probably had a faceted piece of glass as a center decorative stone. All of these rings are similar to rings in the Fort Vancouver collections and are early to mid 19th century, dating from the Hudson Bay company era at the fort.

D. Body Ritual and Grooming

Brush

A fragment of a wooden brush was recovered from the site. It is made of wood with five holes across and seven holes down the fragment. The holes are filled with the remains of bristles, most likely made from animal hair. On the backside green oxidation from copper wire used to hold the bristles in place is present. The bristles were folded in half and secured at the fold with the copper wire in and then inserted into the holes. It is not known what type of brush this was. It could have been a human hairbrush or a horse brush. The brush fragment measures 5.1cm wide by 8.4cm long by 1.1cm thick (Fig. 37).

E. Indulgences

Tobacco Pipes

Tobacco smoking was a common practice among all social classes in the nineteenth century, with pipes as the primary method of smoking (Spuelda 1989: 44). Manufacturers most often made the pipes from clay, which was easily molded. Many pipes were decorated with trademarks, floral designs or geometric patterns as well as other designs, and these features make pipes a very datable item in the archaeological record (Spuelda 1989: 44). Two factors make these clay pipes a common artifact in an archaeological assemblage: one, they were inexpensive and easily broken, which got them into the archaeological assemblage and two, although often broken they do not decompose and remain to be found during excavation.

Two main styles of pipes were recovered. The most common being made of a white kaolin clay with a long tapering pipe stem and bowl, the second being a pipe bowl with a short stem into which a reed was inserted for smoking. A total of 203 pipe fragments were recovered from 35MA41, representing a minimum of twenty-two different pipes.

Pipe stems

Out of the 203 fragments 121 of these are white kaolin pipe stems. They range in size from 9.5mm in diameter near the pipe bowl to 4.1mm near the mouth of the stem.

Pipe Bowls, white kaolin, unglazed

Forty-five fragments of plain white kaolin clay pipe bowls were recovered. Some of these fragments may also represent plain areas of decorated bowls.

Eight fragments of "Ford Stepney" pipes were recovered, which have a two different makers marks, all of which fall into the time frame for the site (Ross 1976: 808-812). Four of the artifacts have "Ford Stepney" stamped in a circle around an insect, most likely a bee. They represent a minimum vessel count of four pipes. Four fragments have "Ford Stepney" stamped around a shield which is divided into quarters with a "+" in the upper left quadrant. These four fragments represent a minimum of four pipes (Fig. 44).

Six fragments with a crosshatch design and a flower frond going up the mold seam and stars circling the edge of the bowl were recovered. This pipe is most likely a "TD" crosshatch pattern that dates to 1837-1847 (Omwake 1965: 139). This represents a minimum of one pipe.

Three white kaolin bowl fragments of a "TD" pipe with stars surrounding it were recovered. They represent a minimum of one pipe. This pipe was produced as a patriotic American product commemorating the war of 1812 (Spuelda 1989: 44). Could this possibly have been William Johnson's, who fought in that war?

Two white kaolin bowl fragments of a design described by Spuelda (1989: 45) as "alternate spike frond" were recovered. These represent a minimum of one pipe.

Two white kaolin bowl fragments with a cockles pattern (Spuelda 1989: 45). One fragment has widely spaced ribs that measure 5.8mm wide. The second bowl fragment has alternately wide and narrow ribs measuring 2.5mm and 1mm respectively. These represent a minimum of two pipes.

Figure 44. White kaolin clay pipe bowl fragments with trademarks.

Pipe Bowls, other clay or finishes

Three fragments of a cockles pipe bowl were recovered. This represents a minimum of one bowl. The bowl is made from white kaolin and has a light terra cotta slip on the interior and exterior of the bowl. The cockles are wide and narrow alternately measuring 2.3mm and .6mm respectively (Ross 1976: 812).

Four fragments of a brown pipe bowl were recovered. The bowl's rim tilts outward with a row of circles with dots inside encircling the pipe and a line below the circles. This is a short-stemmed pipe meant to be used with a reed for smoking. The short stem is also present with the same circle and dot pattern around the stem.

Two effigy pipe bowls were excavated from the site. An effigy pipe has a molded design of a human face on the bowl of the pipe. There were a great variety of these pipes produced. Two fragments were of a gray effigy bowl. It has a man's face on the front with an arrow and hook design along the back of the bowl. Four fragments of a red ware effigy pipe, of the short stem type were recovered. The short stem is plain, with a man's face on the front. The face has a mustache and some sort of hat (Fig. 45).

Figure 45. Molded design and effigy clay pipes from 35MA41

Pipe Spurs

Six fragments of pipe spurs, all made from white kaolin clay were recovered. Three have simple spurs with an "I" on one side and "F" on the other. These pipes were imported by Jesse, Thomas & John Ford (London) (Ross 1976: 811). One spur has a scroll design. One has a flattened spur with "WU" impressed on the base (Fig. 46). One pipe spur is too fragmented to make out any design element.

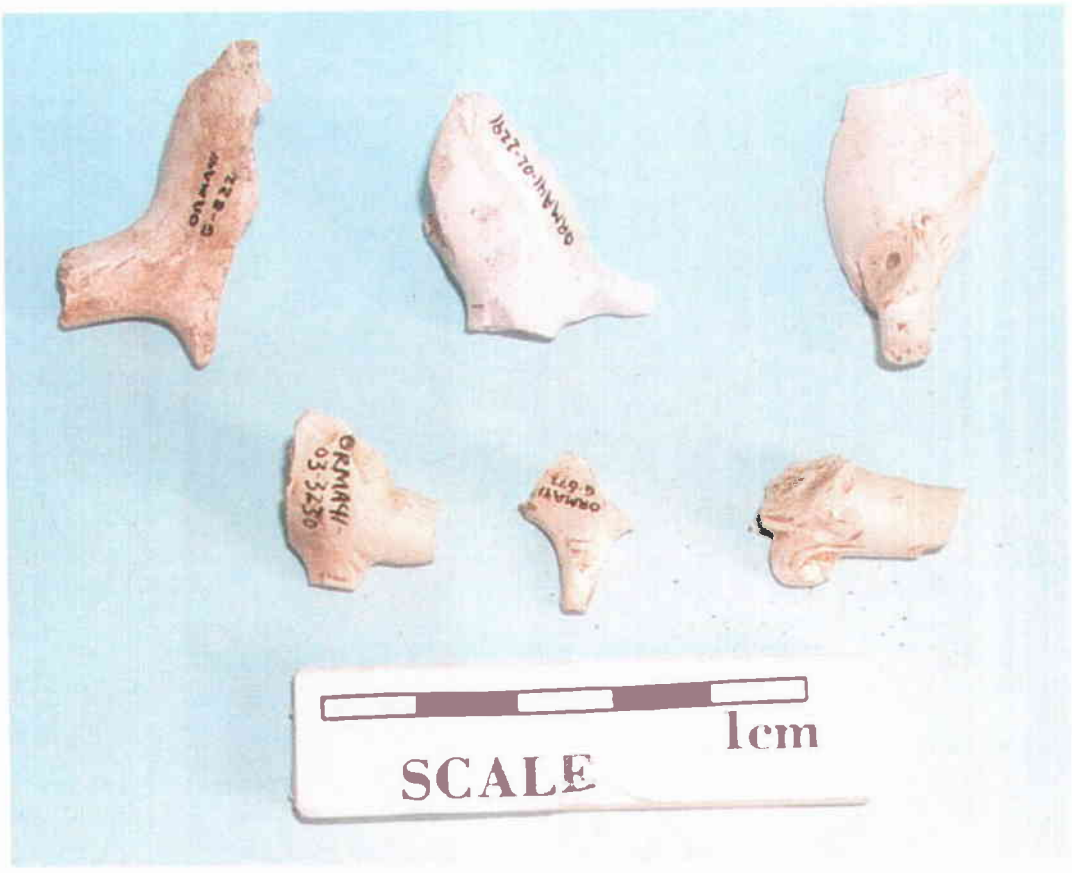

Figure 46. White kaolin pipe bowl fragments with spurs.

Table 12. Pipes

Type	Design	Fabric	Quantity	Minimum count	Description
Stems	Plain	White Kaolin	121	-	Smooth white, cylindrical with bore hole
Bowl	Plain	White Kaolin	45	-	Smooth, white
Bowl	"Ford Stepney" with insect	White kaolin	4	4	"Ford Stepney" stamped around insect
Bowl	"Ford Stepney" with shield	White Kaolin	4	4	"Ford Stepney" stamped around shield
Bowl	Cockles	White Kaolin	2	2	Wide ribs, and wide and narrow ribs
Bowl	Alternating fronds	White kaolin	2	2	Floral decoration alternating along mold seams
Bowl	Cross-hatched	White Kaolin	6	1	Cross hatch pattern, with floral design along seam and stars along bowl rim
Bowl	"TD" with stars	White Kaolin	3	1	"TD' with stars circling
Bowl	Cockles	White Kaolin, orange slip	3	1	Wide and narrow ribs with orange slip on interior and exterior
Bowl	Circle and dot	Brown clay	4	1	Circle and dot pattern around rim and short stem
Bowl	Effigy	Gray clay	2	1	Man's face with arrow and hook design around rim, plain short stem
Bowl	Effigy	Red clay	4	1	Man's face with mustache and hat
Spur	Scrolled	White Kaolin	1	1	Molded scroll on spur
Spur	Flattened spur	White Kaolin	1	2	Flat spur with "WU" impressed
Spurs	Plain spur	White kaolin	4	4	Plain spur with "I" stamped on one side and "F" on the other

Alcohol

Several alcohol bottles were recovered from 35MA41. They include a case gin bottle, Catawba Wine Bitters and several dark olive green alcohol bottles, often associated with wine.

Gin bottle

An olive green case gin bottle was recovered in 122 fragments from the front of the hearth feature. It cross-mended into an almost complete bottle (Fig. 34). The bottle measures 23cm high with a tapered body that is square in cross section with rounded corners. It measures 8cm at the shoulder and 5.5cm at the base. It has a blowpipe pontil scar and hand applied flanged finish measuring 1.6cm high from the shoulder on a rudimentary neck and 4.1cm in diameter on the exterior of the finish. The bore measures 1.8cm. This bottle has been identified as a common case-gin bottle produced in Holland, referred to in Dutch as 'kelderfles', dating from c.1780-1830 (Van de Bossche 2001:132).

Catawba Wine Bitters

Sixteen bottle fragments of emerald green glass was found in the brick rubble. These fragments cross-mended to from approximately 80% of a Catawba Wine Bitters bottle (Fig. 30). The bottle is mold blown with a hand-applied finish. It is square with flat chamfered corners in cross-section. Almost the entire base is missing; therefore any pontil identification is impossible. The bottle has a two-part finish with a down-tooled lip and string

rim. The lip measures 2cm and the string rim measures. 46cm. The entire finish has the remains of a lead seal still intact. Two opposing panels have a molded grape design; the other panels have "CATAWBA WINE" and "BITTERS" on opposing panels. The bottle measures 24cm in height, the panels measure 6.3cm and the total bottle width is 7.6cm. This bottle dates from 1860-1867 (Fike 1987:32)

Other Alcohol Bottles

The remaining alcohol bottles are of an olive green glass that varies from a nearly black in color to a lighter olive green, varying from bottle to bottle and depending on glass thickness. These bottles are usually associated with wine. Jones and Sullivan describe "wine bottles" as, "a generic term to describe the dark green glass bottles with a circular cross section first developed in England in the mid-16th century."(1989: 73). They go on to describe the attributes of these bottles in the 19th century as having, "a two-part finish (i.e. a lip and string rim), an indented base, a roughly cylindrical body, a rounded well-defined shoulder, and a neck one-quarter to one-third of the total body height, and be dark green in colour" (Jones and Sullivan 1989: 73). The dark green glass discussed in this section, although much fragmented agrees with this description.

A total of 444 olive green curved glass fragments associated with these alcohol or wine bottles were recovered. Of these five fragments are finishes, fourteen are neck fragments, eighteen are shoulder fragments, three hundred-

ninety nine were body fragments, four were kick-ups and five were bases. These represent a minimum of six wine bottles, however the large number of unassociated fragments, which do not cross-mend indicate that the actual number of bottles is probably much higher.

Finishes

All five fragments of finishes are hand applied two part finishes, with a down tooled lip and v-tooled string beneath the lip. Four of the artifacts are fragmented, and one is the entire neck and finish. The lip on 02-2681, the complete finish, measures 1.5cm in length. The bore measures 2cm in diameter. The exterior measurement of the finish measures 2.7cm at the opening. The string rim measures .6cm in length. The lip, string rim and a small portion of the neck have remnants of a lead seal still intact. The neck measures 7.2cm from the shoulder to the base of the string rim. The neck is tapered from the finish to the shoulder with a very slight bulge toward the middle of the neck. This was the only complete neck fragment recovered, as well as complete finish (Fig. 47).

Figure 47. Wine bottle finish with lead seal intact.

Figure 48. Clear glass bottle finishes.

Necks

Very little diagnostic features are present on the seventeen fragments that can be identified as pieces of bottleneck. All are of the dark olive glass and show pull marks from the hand finishing process. Only artifact 03-1477 was large enough to get any complete measurements. The exterior diameter of 03-1477 at the base of the neck is 4.4cm and the length of the neck from shoulder to base of finish (which is absent) is 6cm.

Shoulders

Eighteen artifacts were identified as bottle shoulders. The artifacts identified as shoulders are too fragmented to get any measurements or diagnostic information other than to identify them as shoulder pieces.

Body

Four hundred thirty-six curved, olive green glass fragments were recovered. These are all believed to represent body fragments. Of these 436 fragments only three have any diagnostic marks. These three artifacts show mold lines from a contact mold (Jones and Sullivan 1989: 23). The faceted quality of the glass below the mold line indicates that these bottles were blown into wooden, hand carved molds (Brauner: personal communication).

Kick-up and Bases

A total of twelve kick-ups or bases were recovered from 35MA41. Of these 02-2718 is the only complete bottle base. This bottle measures 8cm in diameter on the exterior. It has been hand blown into a dip mold, most likely

made of wood. The heel is rounded and the kick up is a rounded cone with a bare iron pontil (Jones and Sullivan 1989: 111-112).

A partial bottle base was recovered in four fragments, with two artifact numbers, 02-1219 and 02-1385. It has also been blown into a wooden dip mold. The exterior diameter of the bottle measures 9.5cm in diameter. The heel is rounded and the kick up is domed. The pontil mark is a mamelon.

Artifact number 03-2606 is a partial base and body fragment. The exterior diameter is 7.5cm. It has a rounded heel. The pontil and kick up are not present.

Artifact 03-2610 is a partial base with a rounded heel. The exterior measurement is 7cm in diameter. The kick up and pontil are absent.

Artifact 03-2204 is a partial kick up which has been burned. The pontil scar is not present.

Artifact G-861 is a partial base fragment. The exterior diameter of this bottle is 8.3cm. The kick up and pontil are absent.

Artifact G-1031 is a partial base and partial kick up. The exterior diameter is 8cm. It has a rounded heel. There is not enough of the kick up present to determine the kick up type and the pontil is absent.

Artifacts 03-4065, G-786c, and G975b are all small base fragments too small to give any other diagnostic data.

Table 13. Alcohol bottle bases and kick ups

Artifact numbers	# of fragments	Bottle part	Bottle diameter	Pontil type
02-2718	1	Base, kick up	8.0 cm	Bare Iron pontil
02-1385, 02-1219	4	Base, kick up	9.5 cm	Mamelon
03-2204	1	Kick up	--	Not present
03-2606	1	Base, body	7.5 cm	Not present
03-2610	1	Base	7.0 cm	Not present
G-861	1	Base	8.3 cm	Not present
G-1031	1	Base	8.0 cm	Not present

F. Pastimes

A single marble was recovered from 35MA41. It is a white porcelain fabric with three purple concentric stripes and four red concentric stripes perpendicular to the purple forming a small squares at the intersection of the lines (Fig. 49). This marble is consistent with "Chinas", which were first produced in Germany in the 1840s, and enjoying popularity particularly in the 1850s and 1860s, however they were still in use through the late 19th century (Gartley and Carskadden 1998:131)

Figure 49. Ceramic marble

Pocket tools

Watch keys

Two watch keys were recovered in excellent condition from 35MA41. Watch keys were used to wind pocket watches (Fig.50). They would often become stripped, and would be replaced, which may explain why two items associated with a very expensive item (pocket watch) were recovered (Brauner personal communication). However the keys are of different sizes and may have been used for separate watches. 03-2109 is 30mm long, 15mm wide and 4mm thick and is made of brass. 03-961 is slightly smaller at 24mm long, 13mm wide and 2mm thick. The actual "key" portion used to wind the pocket watch is missing.

Figure 50. Pocket watch keys

II. Domestic Items

A. Furniture

Brass escutcheon

A brass escutcheon, used to line a keyhole was recovered. It measures 25mm long, 12mm wide and 4.6mm thick on the exterior. The interior length is 20.48mm. It is most likely that the escutcheon came from a piece of furniture such as a dresser or lap desk.

Brass knob

One brass knob was recovered. The knob measures 21.13mm in overall length with the threading measuring 7mm and the knob measuring 9.29mm at the widest girth. The knob most likely came from a small drawer (Fig. 51).

Figure 51. Brass escutcheon, drawer knob, and hinge.

B. Housewares and Appliances

Culinary

Baking sheet, ferrous metal

A partial shallow baking sheet made from ferrous sheet metal was recovered. Its complete size cannot be determined, however the fragment measures 39 x 17cm at the widest points. The edge of the baking sheet is turned up 3.4cm with a rolled edge (Fig. 25).

Lead can

Fifty fragments of a lead can were recovered. It is constructed out of sheet lead and appears to be pieced together by simple pounding, without solder. The largest fragment 03-2301 measures approximately 4 inches (10cm) across with a 3-inch(7.5cm) hole cut out and covered on the exterior with more sheet lead. It is possible that this can was used to hold flammable material such as gunpowder, since the lead would not create any sparks, thus making it a much safer vessel. After consumption of the powder the lead could then be melted and used for other purposes.

Tin Cans

Two ferrous metal cans with lead seams were recovered. The first and smaller of the two measures approximately 4.5cm in diameter and approximately 2.8cm in height. It has lead solder on the bottom and side seams. The larger can is approximately 8-9cm in diameter and 11.5cm in height. It has a rolled edge and rolled base with lead solder on the seams.

Figure 52. Tin cans with lead seals.

These cans are likely to be some of the oldest cans recovered in the Pacific Northwest (Fig. 52).

Hook, ferrous metal (for hanging pot)

A hand forged metal hook, such as those used to hang a cooking pot over a fire was recovered. It measures 11.5cm (4 inches) in overall length and the interior of the hook measures 4.5 cm (1.75 inches). Looping the iron stock back on itself forming the eye created the eye of the hook. The tip of the hook is tapered (Fig. 26)

Oven door, ferrous metal

On the edge of the brick hearth an oven door was recovered. It measures 36cm long by 18cm wide and 0.7cm in thickness. The backside of the door is plain. There is a lip that is 1.6cm wide, which runs the length of one long end. It is inset by 0.5cm on either side and extends 0.9cm over the body of the door. The front of the door has three raised ridges of metal measuring 1.1 cm high from the door and 0.5cm in width. The exterior ridge along the edge of the door is inset by 1.2cm on each side. The other two ridges run the full length of the door. They are spaced 3.3cm apart. The inset metal on the edge could be to facilitate the opening of the door of the oven (Fig. 27).

Gustatory

Transfer print Ceramics, white earthenware

Abbey (Scene): Twenty-three fragments of Abbey (scene) in blue were recovered. There are two-foot rings, one base, fourteen body fragments and six rim fragments. The fragments are from a flatware dish. The pattern was manufactured between 1839-1841 (Williams Vol II 1986: 539).

Alhambra: Twelve fragments of dark blue Alhambra were recovered. All are body fragments, which are all too small to identify the type of dish. Spode Copland Co. registered this pattern on June 30, 1848 (Sussman 1979: 35).

Antique Vase: Six fragments of blue Antique Vase were recovered. Three are rim fragments and five are body fragments. The introductory date of this pattern is not known, but it produced by Copeland and Garret pre-1847, and was reintroduced in the 20th century (Sussman 1979: 36).

B772: Twenty-five fragments of B772 in a flowing blue were recovered. Twelve are body fragments, two are footring fragments and twelve are rim fragments. These represent a minimum of one vessel, most likely flatware. This pattern dates from ca. 1839 and was produced by W.T. Copeland and Sons' (Sussman 1979: 66).

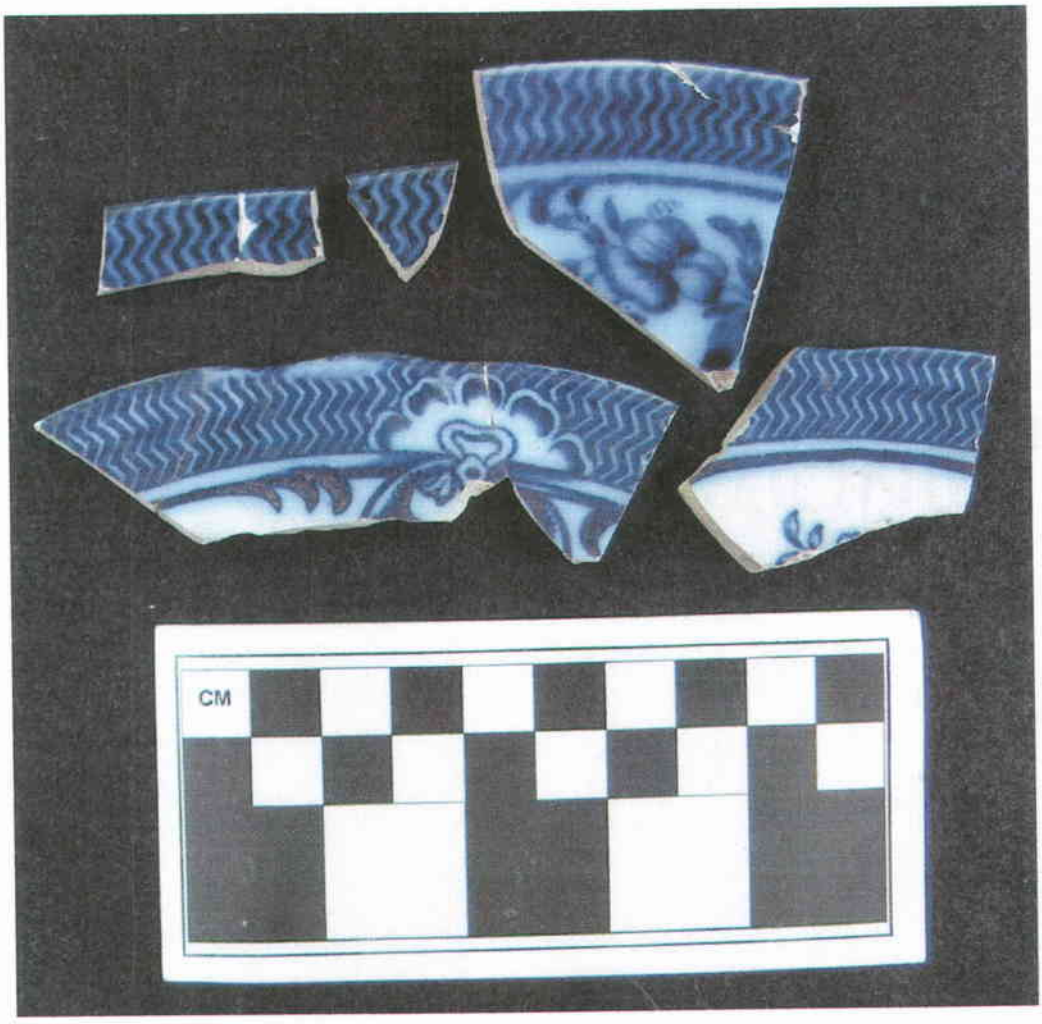

Figure 53. B772 rim fragments

Bedford: Two blue rim fragments of Bedford were recovered. The rim fragments indicate that the vessel was hollowware. This pattern was produced by Spode c. 1855 (Sussman 1979: 55).

British Flowers: Forty-six fragments of blue British Flowers were recovered. Twenty-six were body fragments, thirteen were flat base fragments and seven were from a scalloped rim. The fragments were from a hollowware vessel,

possibly a soup plate. Spode produced this pattern from 1829-1974 (Sussman 1979:61).

Brosely: One body fragment of blue Brosely was recovered. This pattern dates to ca. 1818 or post 1847. It was manufactured by Spode; Copeland & Garret; W.T. Copeland and William Ratcliffe (Chapman 1993: 130).

Chinese Export: Two fragments of blue Chinese Export were recovered. They are from a pitcher rim. Chinese export was produced between 1814-1830 (Williams Vol. II 1986: 83).

Columbia: One fragment of blue Columbia was recovered. It is from a pedestal base. This pattern was produced c. 1848 by William Adams & Sons (Snyder 1997: 16).

Doria or Epirus: Six fragments of either blue Doria or Epirus were recovered. Both patterns used the same rim design, and positive identification cannot be made without a fragment of the center pattern. Four are body fragments and two are rim fragments. Doria was produced by J. Ridgeway and Co. from 1841-1855 (Williams Vol I 1978: 253). Epirus was produced c. 1846 (Snyder 1997: 167).

Euphrates: Two fragments of blue Euphrates were recovered. One is a rim fragment and one is a body fragment. These fragments appear to be from hollowware with printing on the interior and exterior of the rim fragment. This pattern was produced c. 1830-1834 (Williams Vol III 1998: 28).

Field Sports: Eight fragments of blue Field Sports and twenty-four fragments of green Field Sports were recovered. Of the blue one is a scalloped rim, five are body fragments, and two are base fragments. One of the base fragments has a registration mark on the back. The blue fragments are from a flatware vessel. Of the green fragments twenty-one are body fragments, one is a footring and one is a rim fragment. The green fragments are from a hollowware vessel. This pattern was registered September 14, 1846 and was produced by W.T. Garrett and Copeland and Garrett (Sussman 1979: 112).

French Radiating Sprigs: Seven fragments of French Radiating Sprigs in a flowing blue were recovered. Two are body fragments and five are rim fragments. This pattern dates from post-1833 or post 1847 and was produced by W.T. Copeland and Copeland and Garrett (Sussman 1979: 116).

Garden Scenery: Twenty-seven fragments of pale blue Garden Scenery were recovered. Of these four are base pieces, eleven are body pieces and twelve are rim fragments. Twenty-one fragments cross-mended and formed a partial dish measuring 16cm or 6 3/8 inches across at the rim. This dish has a pattern only on the interior (Fig. 54). There is a minimum of two vessels, as some of the fragments have printing on the interior and exterior surfaces. This pattern was produced from 1843-1855 (Williams Vol. I 1978: 268).

Figure 54. "Garden Scenery" saucer

Geranium: Two small fragments of blue Geranium were recovered. One is a body fragment and one is a rim fragment. This pattern was produced c.1818-20th century, early examples were made only by Copeland and Garrett (Sussman 1979: 123).

Hudson: Eight fragments of light purple Hudson and fourteen fragments of red Hudson were recovered. Of the purple three are rim fragments, and five are body fragments. Of the red four are base fragments, three are body fragments, three are rim fragments and four are have foot rings. The red fragments represent at least two flatware vessels. Both the red and purple have pearlware glazes. Thomas Edwards produced Hudson from c. 1839-1841 (Fig. 55) (Chapman 1993:143).

Figure 55. "Hudson"

Indostan: Sixteen fragments of pink "Indostan" were recovered. Five are body fragments, two have partial foot rings and nine are rim fragments. This pattern was identified by the top of the trademark, which appears on the back of one of the rim fragments. The maker's mark is broken off the fragment and identification in published sources has not been possible (Fig. 56). The pattern name does coincide with a tendency in the 1830s and 1840s to produce exotic scenes.

Figure 56. "Indostan"pattern. Maker unknown.

Isola Bella: Three fragments of blue Isola Bella were recovered. Two are rim fragments and one is a body fragment. Adams and Sons produced this pattern from 1819-1864 (Snyder 1997: 21).

Italian: Four fragments of blue Italian were recovered. One is a base fragments, which indicates a flatware vessel, two are body fragments and one is a rim fragment. This pattern was produced from 1816 until the present. It was manufactured by Copeland and Garrett and W.T. Copeland, and is currently manufactured by Spode Limited (Sussman 1979: 134).

Lily: Seventy-nine blue fragments of the Lily pattern were recovered. Of these three were base fragments and four were foot rings, which showed pearlware glaze. One fragment was from a cup handle. Thirteen fragments were rim fragments representing a minimum of four vessels. Of the rim fragments six have patterning on the interior and exterior of the vessel. These fragments measure 2.8mm in thickness. These may represent a hollow vessel, such as a cup. On fragment from a heavier vessel, measuring 6.5mm in thickness also has patterning on the interior and exterior of the vessel. Five fragments of a thinner vessel, measuring 2.75mm in thickness, have patterning on the interior only. Two fragments of a heavier vessel, measuring 5mm in thickness, have patterning on the interior only. This pattern dates from 1837 to the present and was produced by W.T. Copeland and Copeland and Garrett (Sussman 1979: 138).

Louis Quatorze: Two rim fragments of blue Louis Quatorze were recovered. This pattern began being produced in 1844, by W.T. Copeland and Copeland and Garrett; the ending date is unknown (Sussman 1979: 145).

Marine or Marino: Thirty-two fragments of blue Marino were recovered. Twenty-five are body fragments and seven are rim fragments. The rim fragments indicate that this was a hollowware vessel, most likely a soup plate. This pattern was produced from 1834-1838 (Williams Vol I 1978: 327).

Rhone Scenery: One blue rim fragment of Rhone Scenery was recovered. T.J. &J Mayer produced this pattern from 1843-1855 (Williams 1978: 390).

Ruins: One small body fragment of dark blue Ruins was recovered. This pattern was produced from 1848-20th, early examples were produced by W.T. Copeland and W.T. Copeland and Sons' (Sussman 1979: 168).

Rural Scenes: Six fragments of blue Rural Scenes was recovered. Three were scalloped rim fragments and three were body fragments. This pattern was produced c. 1850 by W.T. Copeland (Sussman 1979: 170-180).

Seasons: Twelve body fragments of dark blue seasons were recovered. This pattern was produced by W.T. Copeland and Copeland &, Garrett from 1835-20th century (Sussman 1979: 194).

Voilet: Forty-seven fragments of purple Voilet, representing two hollowware vessels were recovered. One of the hollowware vessels is a handled teacup.

The other vessel may be the matching saucer. Thirteen are rim fragments, thirteen are body fragments, two are base fragments and two are footring fragments. All fragments have a pearlware glaze. One of the rim fragments has a fragment of a handle on it. This pattern was produced by John Thomson c. 1840-1850 (Fig. 57)(Chapman 1993: 160)

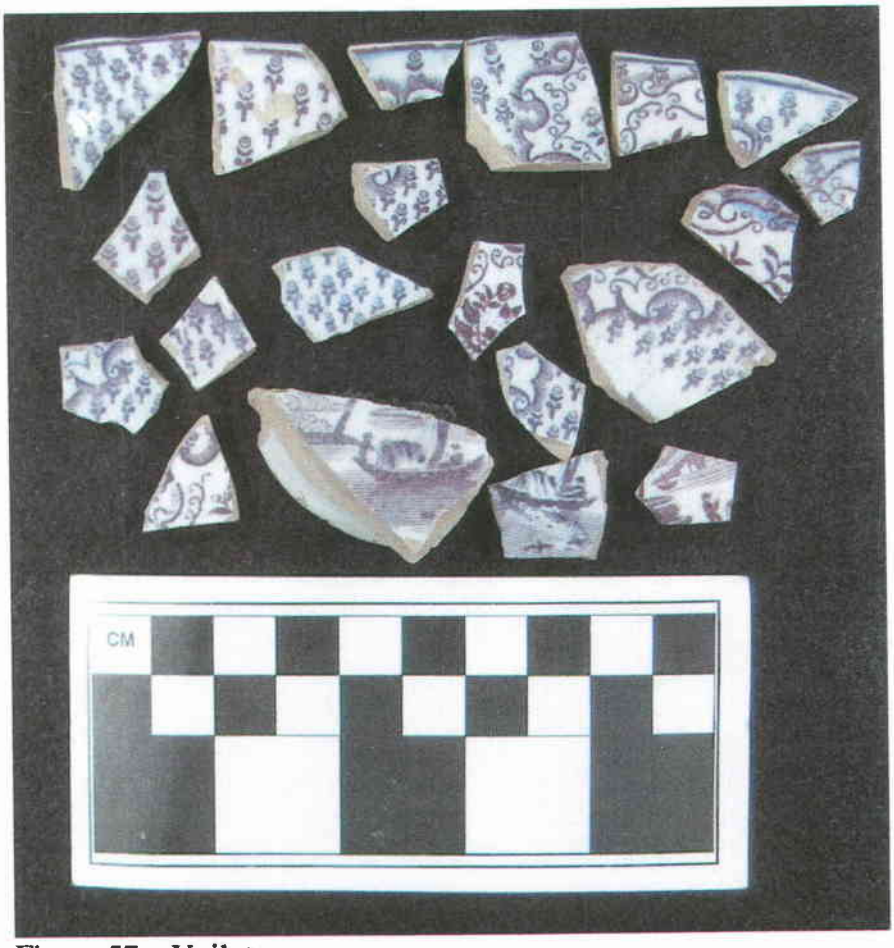

Figure 57. Voilet

Watteau: Three fragments of blue Watteau were recovered. Two are rim fragments and one is a body fragment. This pattern was produced before 1847 and after 1861 by W.T. Copeland and Copeland and Garrett (Sussman 1979: 231).

Willow: One rim fragment of blue Willow was recovered. This pattern began being produced in the 1780s by Copeland & Garrett and continues until the present (Sussman 1979: 236).

Blue Unidentified: Sixty-nine fragments of unidentifiable transfer printed blue ceramic were recovered. The small size of the fragments and poor condition of the glazes makes identification unlikely on these pieces. Of the sixty-nine fragments fourteen of these are base fragments. Two base fragments have partial makers marks reading, "land" and "20, land, ode". These most likely represent Spode Copeland ceramics. One of the base fragments is from a cup with a pearlware glaze. The other ten fragments appear to be from flatware vessels. One unidentified pattern is a rim fragment. One fragment is from a molded handle. The remaining forty-nine are body fragments (Fig. 58).

Figure 58. Unidentified blue transferprint patterns.

Flow Blue floral cup: fifteen fragments of a flow blue cup were recovered. Three are rim fragments, two are foot fragments and eleven are body fragments. The cup has a flowing floral pattern on the interior and exterior of the vessel. The body of the cup is molded into panels. Not enough of the cup is present to obtain vessel measurements (Fig. 59).

Figure 59. Unidentified flow blue cup

Flow Blue Unidentified: One fragment of a flow blue with a geometric pattern was located at Fort Vancouver, however the pattern was unidentified in their records as well.

Flow Blue Unidentified: forty-seven fragments of unidentified flow blue ceramic were found. One of these is a partial footring with a floral pattern on the interior of the base. The remaining forty-seven are body fragments. Most of the fragments are to small to identify to pattern, although some may represent French Radiating Sprigs, which is more difficult to identify due to the varied floral patterns used with the same rim edge.

Unidentified brown: Five fragments were recovered. Two are rim fragments and three are body fragments.

Unidentified mulberry: Two body fragments of mulberry transferprint were recovered.

Hand Painted Earthenware

Gaudy Dutch or Cottage ware: Twenty-eight fragments of white earthenware with hand painted floral decoration were recovered. Three are rim fragments, three are foot rings and twenty-two are body fragments. The decoration consists of hand painted flowers in red and blue with green leaves. This type of ceramic was most popular between 1820-1840 (Chapman 1993: 220)

Edge Decorated Earthenware

Seventy-nine fragments of "Feather Edge" or "Shell Edge" ceramic were recovered. This ceramic consists of a white fabric with a hand applied blue edge decoration and pearlware glaze. The edge decoration varies from an irregular hand painted blue decoration to a simple blue line, usually over some type of impressed lines (Sussman 1977: 49). Because the diagnostic features of this ceramic are contained only on the rim fragments the minimum vessel count for featheredge may assume to be low. There is no way of discerning plain white earthenware body fragments from the featheredge ceramics. The identifiable fragments of featheredge represent a minimum of eleven vessels. Featheredge was produced mainly between 1800-1840 and most popular in the 1820s (Chapman 1993:206).

Two vessels are dinner bowls with a "chicken foot" impressed design with a feathered blue rim. One vessel is comprised of twenty-two base fragments and fifteen rim fragments. The other vessel consists of seven rim fragments. Five rim and body fragments of an oval shaped serving bowl were recovered. This

bowl measures three inches deep. Fragments of five other designs were recovered. Four fragments of a vessel with a scalloped rim with impressed lines and a feathered rim were recovered. Five fragments of a dinner bowl with impressed parallel lines and feathered painting were recovered. Two rim fragments with a "Chicken foot" impressed pattern and lateral rim painting were recovered. Five rim fragments with parallel lines and lateral rim painting were recovered (Fig. 60).

Fourteen rim fragments with feathered painting were recovered.

Figure 60. Examples of the variety of edge decorated earthenware.

Table 14. Edge decorated ware

Impressed Pattern	Painting type	Vessel type	Rim fragments	Base fragments
Chicken foot	Feathered	Soup plate	15	22
Chicken foot	Feathered	Soup plate	7	
Impressed lines	Feathered	Serving bowl, oval	5	
Impressed lines, scalloped rim	Feathered		4	
Parallel lines	Feathered rim	Soup plate	5	
Chicken foot	Lateral		2	
Parallel lines	Lateral		5	
	Feathered		14	

Cream ware: Eight body fragments of undecorated cream ware were recovered.

Mochaware

Mochaware refers to several patterns of hand-applied slip based patterns on a variety of earthenware fabrics. This category includes banded ware, cat's eye and Mocha Tree and dates from 1830-1850 (Chapman 1993: 76). Several varieties of banded ware and Mocha Tree were identified at this site. Due to the nature of the earthenware used in these ceramics, and plowing activities, the artifacts are extremely fragmented. Also due to the nature of the patterns and varied colors it is difficult to separate patterns out. Therefore the ceramics have been separated by fabric type and general banded ware mocha tree.

Red fabric mocha: Ten body fragments of mocha on a red ware fabric were recovered. All have striped decorations in brown and white on the interior and brown, yellow and blue on the exterior. 03-609 has a small area that is unglazed where a handle may have broken off.

Yellow fabric mocha: Five fragments of mocha on a yellow ware fabric were recovered. All have a clear glaze on the interior. Two body fragments have a blue and white stripe pattern. Two body fragments have a blue "Mocha Tree" pattern with striping. One rim fragment has blue and yellow stripes with a green "Mocha tree" patterns (Fig. 61).

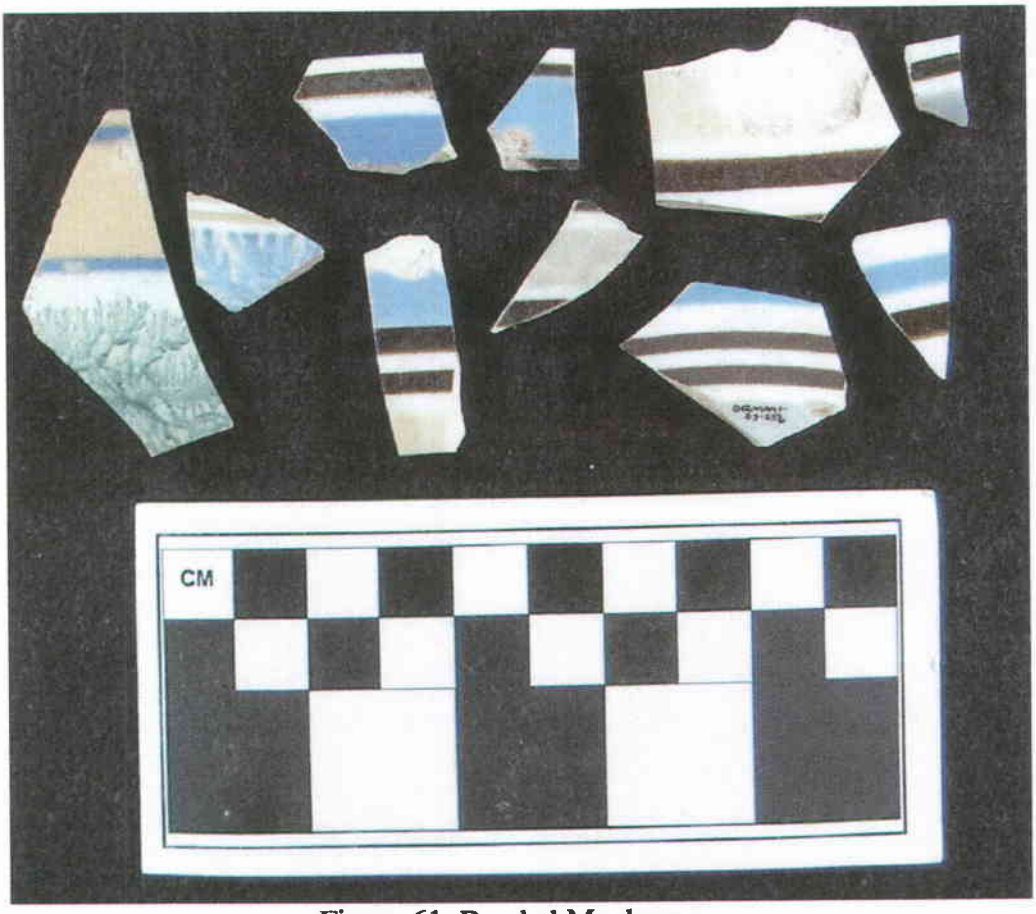

Figure 61. Banded Mochaware.

White Fabric Mocha

Bowl: Three large fragments of a small bowl were recovered. The bowl is made of white fabric earthenware with a clear glaze on the exterior and interior of the bowl. The rim of the bowl has a wide blue stripe. The bowl measure 15.5cm or 6 inches in diameter and 3.8cm in depth.

Blue and White mocha: Fifty-eight fragments of blue and white mocha were recovered (Fig. 62). Twenty are rim fragments and thirty-eight are body fragments.

Banded ware on white fabric: Fifty fragments of banded mocha on a white earthenware fabric were recovered. Forty-three are body fragments and seven

are rim fragments. The banded stripes include several colors and combinations including yellow, blue, brown, white, tan, and green.

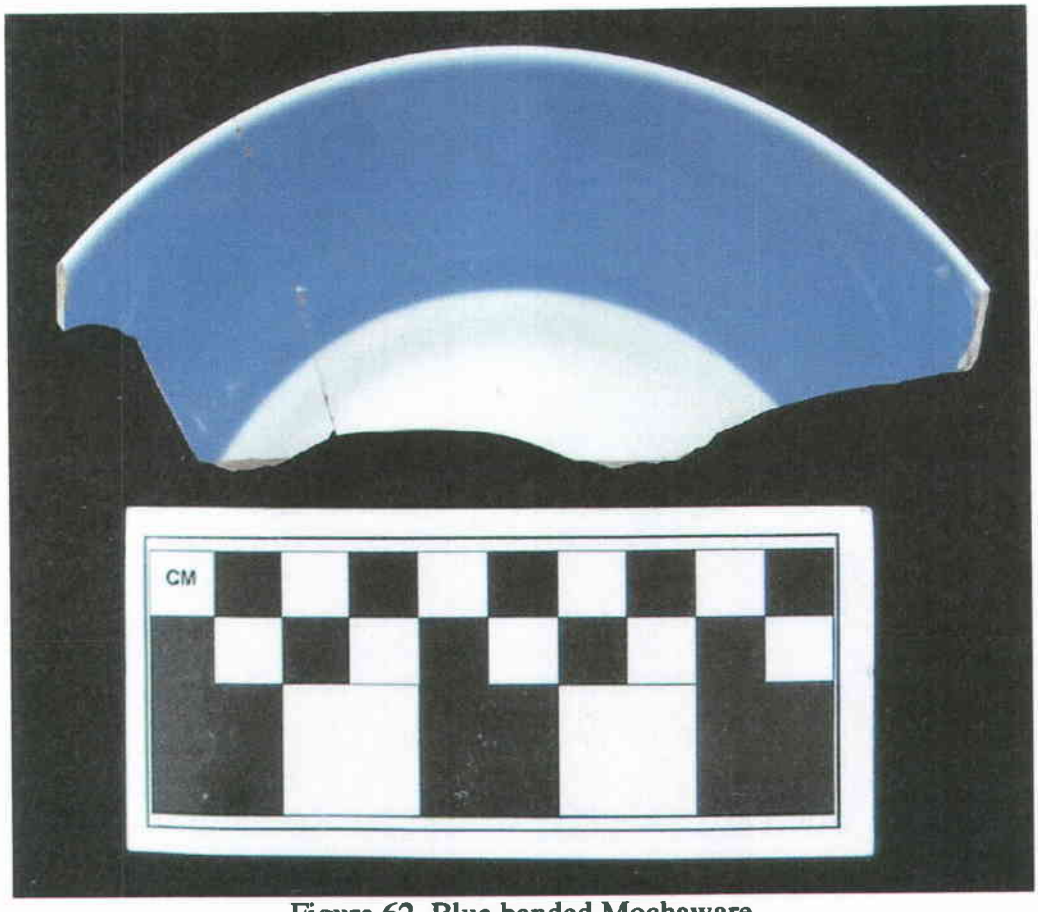

Figure 62. Blue banded Mochaware.

White earthenware, undecorated, pearlware glaze

In the 18th century through the first half of the 19th century English potters began using a blue or blue green tinted glaze on cream ware in order to make the vessels appear whiter (Sussman 1977: 105-106). On archaeological specimens this may be hard to differentiate on white earthenware and detect the glaze on body fragments. The most recognizable characteristic of pearlware is a pooling of the glaze around foot rings or in molded designs. Here the glaze is slightly thicker and the blue or blue-green tint is observable. Of course, the lack of body fragments identified somewhat skews the numbers for pearlware. Undoubtedly some of the more than 1,100 white earthenware body fragments are undetected pearlware.

Forty-two fragments of undecorated white earthenware were identified as having a pearlware glaze. One of these is a body fragment, two are rim fragments, two are fragments of molded decoration, one is base fragment with a partial illegible makers mark and thirty-six are fragments of foot rings.

White earthenware, undecorated

One thousand one hundred twenty-five fragments of plain white earthenware fragments were recovered. Of these nine- hundred eighty-six were body fragments, twenty were base fragments with no makers marks, five were handle fragments, seventy-four were rim fragments, thirty-four were footring fragments, with no makers mark, one was a whole footring and five

were base fragments with some sort of makers mark present. Much of this plain white earthenware may not come from plain white vessels. An unknown quantity could come from white earthenware vessels, which are partially decorated, such as featheredge. Because of the small and fragmented nature of the shards, there is no way to know what was a plain vessel and what is from a decorated vessel.

Yellow earthenware, undecorated

Sixty-two fragments of yellow fabric earthenware with a clear glaze were recovered. They consist of six base fragments, forty-nine body fragments and seven rim fragments. The fragments of yellow ware were all thin and very fragmented. It was not possible to identify them past the type of fabric. However some mocha was produced in with a yellow fabric, and these fragments may represent some of this mocha. The thickness of the fabric is more consistent with the mocha than with the heavy utilitarian ceramics often associated with yellow ware.

Ironstone

Ironstone refers to a sturdier ceramic fabric than earthenware, which is usually seen as a solidly white vessel with molded designs. White Ironstone ceramics were introduced in the 1840s, reusing the shapes, which had been used on transfer printed ceramics (Wetherbee 1996: 9). Some of the earliest shapes introduced included *Classic Gothic*, *Octagon* and *Paneled Grape*.

White ironstone was most popular in America between the 1850s and the 1970s (Wetherbee 1996: 10).

Classic Gothic: Four fragments representing a cup, with a minimum of one vessel were recovered. These included one base fragment, one body fragment and two rim fragments. This pattern dates from the 1840s to the 1850 (Wetherbee 1996: 35). The footring measures 4.5cm on the exterior surface.

Sydenham: Eight fragments of Sydenham were recovered consisting of four body fragments, one base fragment, consisting of the entire base, and one rim fragment. The exterior diameter of the footring measures 4.8cm in diameter. The height is 9.2cm and the rim diameter is 10cm or 4 inches. These fragments all represent a single cup. Sydenham was introduced in 1853 (Fig 63) (Wetherbee 1996: 50).

Figure 63. Sydenham ironstone cup

Unidentified: Seventy-one fragments of unidentifiable fragments of ironstone ceramic were recovered. These fragments represent a minimum of seven vessels. The fragments contain four footring fragments, thirty-eight body fragments, and twenty-nine rim fragments. Nine of the rim fragments have molded elements and twenty are smooth. Of the foot rings only two were large enough to provide diameters. O2-1361 and 02-3670 both measure 4.9cm or 1.9 inches in diameter.

Porcelain, gray fabric

Ginger Jar: ninety-three body fragments and sixteen lid fragments were recovered of a single Chinese ginger jar. It is made from gray porcelain with a clear glaze and blue under glaze patterning. It has a bare rim on the vessel and on the lid. The footring is also bare of glaze. This type of ginger jar is often referred to as a Canton ginger jar, as this was the city it was exported out of (Spuelda 1993: 93-94). These types of jars have been found on many of the French Prairie archaeological sites including Despard, Lucier, Laframboise, Belleque, St. Francis Xavier Mission, Champeog, as well as Kanaka Village and Fort Vancouver. These types of jars were usually used to store foodstuffs (Spuelda 1993: 94).

The ginger jar lid measures 2.4cm high and 8.8cm in diameter. The interior and exterior of the lid are glazed, with blue under glaze design on the top and sides of the exterior. The rim of the lid is bare of glaze. The jar

measures 13.7cm in diameter and the widest point of the shoulder measures 14cm. The height of the jar is 17cm with out the lid on. The bore of the mouth of the jar measures 6.3cm and the exterior of the mouth measures 7.3cm. The decorations on the jar include two houses with trees near water (Fig. 35).

Porcelain, white fabric

Chrysanthemum: One body fragment of hand painted Chinese porcelain was recovered. The decoration is a cobalt blue hand painted stylized flower (Fig. 64). This design dates from the mid 19th century (Chapman 1993: 291).

Unidentified: One unidentified rim fragment of hand painted Chinese porcelain was recovered. It has two concentric blue lines around the rim and an abstract pattern below on the interior. There are also two concentric lines on the exterior of the rim.

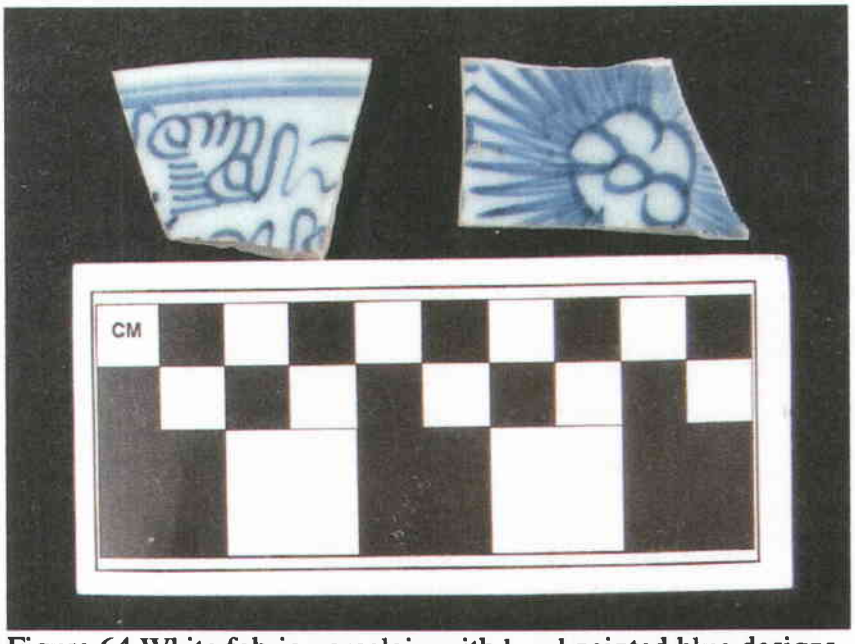

Figure 64 White fabric porcelain with hand painted blue designs. Shard on right "Chrysanthemum" pattern.

Stoneware

Buff fabric: Ten fragments of buff stoneware with a salt-glaze exterior were recovered. Two were base fragments, seven were body fragments and one was a lid fragment. The lid fragments has a large dark brown glaze inclusion on it. These fragments would have come from a utilitarian storage-type crock (Fig 65).

Figure 65. Fragment of stoneware crock lid with glaze inclusion.

Red fabric, glazed interior and exterior: Eight fragments of red fabric stoneware were recovered. All pieces were glazed on the interior and exterior. Two fragments are from the rim and six are body fragments.

Red Fabric, interior glaze: thirty-four fragments of a red stoneware crock were recovered. The pieces were glazed with a brown salt glaze on the interior of the vessel. Four pieces were rim fragments, four pieces were base fragments and twenty-six were body fragments.

Tumblers

A total of minimum vessel count of ten different tumblers was recovered from 35MA41. Tumblers were a common drinking vessel in the nineteenth century (Jones and Sullivan 1989: 143). The tumbler fragments vary in composition, design and manufacture. I have broken them down by these criteria.

Solarized glass

Two base fragments manufactured from glass, which is solarized, were recovered. Both base fragments have a slight lavender tinge to them and appear to represent a single vessel. The fragment of base that is present on both artifacts is completely flat. The small amount of body showing appears to be round. The base measures 6.5 cm in diameter or 2.5 inches.

Pressed Glass-Nine Panels

Twenty-nine fragments of clear pressed glass tumblers were recovered, representing two vessels of the same style. The tumblers appear to have been pressed in a two-part mold, as only a single set of mold lines are visible at the edge of the tumbler base. The finish would have been completed by hand. The tumblers measure 7.8 cm or 3inches in diameter at the finish and have a base diameter of 5cm or 2 inches. The tumbler has a circular finish with a fire-polished rim. The base is divided into nine panels, which go up the body of the tumbler 6.4 cm or 2.5 inches. The panels are 2 cm or .75 inches across at the base of the tumbler. The base of one of the tumblers is present, showing a finished pontil. A finished pontil is where the rough glass from the pontil is

ground away leaving the glass smooth and allowing it to sit flatly on a surface (Fig. 66)(Jones and Sullivan 1989: 129).

Figure 66. Pressed glass nine-panel tumbler.

Round Glass Tumbler

Three fragments of a cylindrical tumbler were recovered. Two are small body fragments, and one is the entire base. The base measures 7 cm or 2.75 inches in diameter. The base is cylindrical and smooth on the exterior with a single large air bubble inclusion, as well as many smaller air bubble inclusions. The base of the glass is completely flat with no evidence of a

pontil or mold seams. The body of the glass appears to have a straight-sided body, which thins out considerably to only 1.5mm in thickness.

Leaded Glass Tumblers

Seventy-two fragments of leaded glass were recovered. Two were rim fragments, nine are base fragments and sixty-one are body fragments. These represent a minimum vessel count of six tumblers (Fig. 67).

Artifact D-153 is a complete tumbler base. It measures 7 cm or 2.75 inches in diameter at the base. It has eleven panels cut into the glass. The base has a finished pontil.

Artifact G-911o is a base fragment. It has cut panels and a base similar to D-153, and most likely represents a tumbler of the same design.

Artifacts 02-1433, 02-1503, 02-1707, 02-2320 and 03-530 cross-mended to form the base of another tumbler. The tumbler measures 6.3cm or 2.5 inches in diameter. The base is cylindrical on the body exterior and flat on the base. The pontil area is not present.

Artifacts S-315, and 03-61 are base fragments that may represent the same vessel, even though they do not cross-mend. They are made of a pressed leaded glass with side panels. Not enough of the panels are present to know how many would have been on the glass. Artifacts G-841-d and 03-1690 are leaded glass rim fragments. Both have a fire-polished finish, but the finished thickness indicates they are from two different tumblers.

Figure 67. Round glass tumbler fragments of paneled leaded glass tumblers.

Utensils

Three utensils were recovered from the site. One is a partial bone handle knife of the type commonly used in the early 19th century (Brauner: personal communication). The fragment measures 7.7cm long. The entire handle is present, but the blade, which is made of ferrous metal, is severely corroded. The handle portion measures 5.8cm long and the intact portion of the bone handle measures 7mm in thickness.

Two partial fork fragments were recovered as well. They are not as intact as the knife and the handles are entirely missing, as well as the prongs. This is due to the poor preservation of the ferrous metal, which left only the thicker portions of the forks intact. The forks had three prongs.

Portable Illumination

Twenty-eight fragments of a hurricane lamp were recovered, most likely representing a single lamp. Seventeen were body fragments of clear glass with an identifying circular stress lines from manufacture. Eleven of the pieces were rim fragments, along which the edge had been fire-polished. There was enough of the rim intact to deduce a diameter of 8.5cm along the finished rim.

Home Education

Fragments of four inkwells were recovered from the site (Fig 68). Ink began to be commercially produced in America after the first commercial patent was filed in 1816 (Polak 2002:174). Glass inkwells then became popular and were usually very decorative, as inkwells were often displayed prominently on desks (Polak 2002: 174) and reused and refilled in the home (Jones and Sullivan 1989:71). The most common shape for inkwells during the first half of the 19th century was a multi-sided conical bottle known as "umbrella ink" (Polak 2002:174). These bottles usually had a paper label (Van der Bossche 2001: 371), making the manufacturer difficult to identify, as the labels do not preserve well in an archaeological context. Three of the inkwells recovered from 35MA41 are umbrella conical in shape, although all are different colors of glass. The fourth inkwell is mold blown three-part inkwell.

The yellow-olive umbrella inkwell has twelve fragments, four of which have cross-mended. The majority of the base and one side of the body of the bottle are present. The base measures 5.75cm in diameter with a blowpipe pontil mark. Mold seams are also present on the base. The body of the bottle would have consisted of eight panels in a conical formation. The finish of the bottle is absent and the shoulder area of the bottle has been burned. The size, color and shape of the bottle are consistent with umbrella ink bottles manufactured between 1840 and 1860 (Polak 2002: 178).

The aqua umbrella inkwell consists of one body fragment. It most likely had eight panels as well. Four panels are present, comprising roughly half of the circumference.

The light aqua umbrella inkwell consists of one body fragment. The glass is significantly thinner that that of the other umbrella ink, measuring 1.7mm at the thickest point, as opposed to aqua inkwell, which measures 4.4mm at the thickest point. The light aqua inkwell is also corroded, showing an iridescent sheen.

The molded inkwell is an olive green glass, which consists of one piece that includes the entire base and a partial body (Fig. 42). The base measures 6cm in diameter with a glass pontil mark measuring 1.9cm in diameter. The lower portion of the body has a molded diamond and triangle pattern. The diamonds measure 1cm in length and .75cm in height. There are fifteen diamonds running the circumference of the inkwell. Above the diamond and triangle pattern is a string design, which measures 2.5mm in width. Above the string is a smaller allover diamond pattern in which the diamonds measure 4.4mm in height and 3.7mm in width. This inkwell has been identified as being manufactured by Coventry Glassworks in Connecticut, USA between 1815-1840. This inkwell would have been blown into a three part mold and have an applied disc on top (Van der Bossche 2002: 364).

Figure 68. Inkwells.

Table 15. Inkwells

Color	Shape	Fragment	Date range
Aqua	Umbrella conical	1	Unknown
Light aqua	Umbrella conical	1	Unknown
Yellow olive	Umbrella conical	12	1840-1860
Dark olive	Mold blown geometric design	1	1815-1840

Slate

Seventeen pieces of slate were recovered from the site. Fourteen are fragments from slate tablets and three are fragments of slate pencils two of which are sharpened at one end. All are a dark gray color. The slate may represent either children's education or family bookkeeping, as slate was used both in schoolhouses and by Hudson Bay Company clerks (Spuelda 1996:91).

C. Cleaning and Maintenance

Needles

Three fragments of ferrous metal are believed to be remnants of sewing needles. In the nineteenth century the needle making industry was based largely in England, which would have been the most likely source for any needles coming into the Champoeg area. Needle making was a specialized industry with different families working in different processes. Many steps were required to manufacture needles. A needle would begin with a coil of steel wire, which was constricted and through a draw plate of steel into finer and finer diameters. Then it was cut to the length of two needles. The drawing process would curve the needles so the next process after cutting was straightening. Then the needles would be pointed on either end by a man known as a "pointer". This highly skilled and dangerous job garnered high wages, but pointers often did not live past the age of 30 due to lung damage. After pointing the eyes of the needles would be stamped, a job usually done by women. A good day could see over 20,000 needles stamped by one woman. Then the needles needed to be tempered, a hardening process that was used to prevent the needle from being too brittle to use. After all these processes the needles needed to be cleaned and polished to remove any sharpness, particularly in the eye, which could fray thread or fabric. Needles were exported all over the world and proved to be excellent trade items. They are compact, easy to transport in large quantities and were highly desired as trade

goods (Fitzgerald 1999: 53-55). Because needles were made of ferrous metal they are often in very poor condition in archaeological sites, making identification difficult if not impossible, or they are not found at all.

Straight pins

Three brass straight pins, usually associated with sewing were recovered from 35MA41. Two are fragmented and one is complete. The intact pin measures 27.3mm long; the head measures 1.5mm in diameter and the shaft measures .5mm in diameter.

Thimbles

Two thimbles were recovered from the site. One is intact, although somewhat flattened. The second is fragments. Both thimbles are brass with the same impressed pattern. The top of the thimble is dimpled, in order to "catch" the needle being pushed through the fabric. Below the dimpled pattern is a band with two rows of impressed lines going around the thimble. The bottom of the thimble is rolled upwards. The intact thimble measures 2.3cm long and measures 2.6cm in width at the base and tapers to 1.3cm at the top.

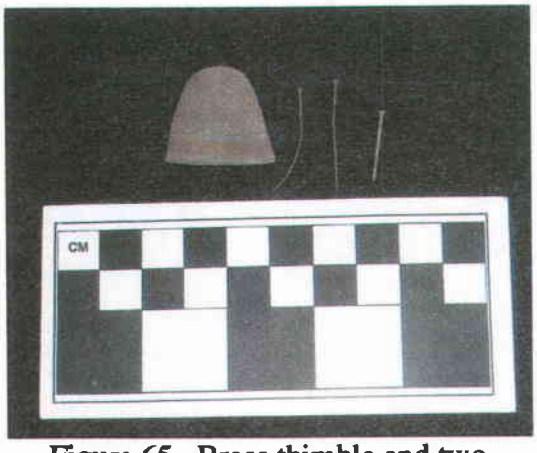

Figure 65. Brass thimble and two whole and one fragment of brass straight pins.

III. Architecture

A. Construction materials

Brick

Brick was found in fragments throughout the site. Although 659 fragments were collected it is unclear how many whole bricks would be represented by this number. Fragments ranged from less than a centimeter to almost whole bricks and were ubiquitous through out the site. Brick found within the plow zone were especially broken up, by agricultural activity. Once this was realized only whole brick or brick with unique characteristics were collected. All of the brick was hand made and sand struck. Fingerprints were discovered on several bricks. The fingerprints on the bricks are quite small, possibly indicating production by women or children in their manufacture. The whole bricks recovered measured eight inches (20.3cm) in length by 4.2 inches (10.5cm) in width and 2.2 inches (5.4cm) in height. Several fragments of brick in a wedge shape were also recovered.

Mortar

Fourteen samples of mortar were recovered from the site. The mortar is gray-white in appearance and appears to be composed of lime and sand, which dissolves very easily in water, which could explain why very little was recovered in comparison to the large quantity of brick recovered. Or a mortar made of mud, like that used at the St. Paul Church could also have been used.

A mud mortar would be reincorporated into the soil and become "invisible" in the archaeological record (Brauner personal communication).

Hardware

Nails, machine cut

The vast majority of nails found were machine cut. These nails are parallel along two sides and tapered on the other two. This is due to the process were iron is milled into flat sheets and then cut into nail blanks with rectangular shaped heads (Edward and Wells 1993: 11). Machine cut nails were introduced to French Prairie in 1844 (Brauner 1987: 15). Preservation of nails was extremely variable throughout the site. There were 2104 whole and fragmented nails recovered.

Hand Wrought Nails

Only three hand wrought nails were recovered from the site, comprising only 0.001% of the nails recovered. Making them quite anomalous for this site. All three hand wrought nails had a rose-head (Ross 1976: 893).

Screws

Six hand wrought screws were recovered from the site. Unfortunately all were highly corroded and the threading was barely visible. All had flat heads. After cleaning it was impossible to see diagnostic features. It is not possible to determine the original size of the screws.

IV. Commerce and Industry

Hunting

Nine pieces of lead shot were recovered from the site (Fig. 30). All are lead shot or lead balls. These would have been used in smoothbore flintlock weapons, which were in general use up through the 1850s (Spuelda 1989: 89)

Table 16. Lead shot and balls

Artifact number	Diameter in inches
02-2969	0.59
02-3102	0.287
02-2668	0.138
03-241	0.137
03-425	0.465
03-1183	0.151
03-2013	0.108
03-2403	0.413
03-2989	0.131

Gun Part, Flintlock Hammer

One flintlock was recovered from 35MA41 (Fig. 70). The style does not appear to match any recovered from Fort Vancouver. The flintlock measures 9cm (3.56 inches) in length. The remaining width, due to corrosion, is 6mm (.24 inches). The smaller hole on the end measures 4mm (.17 inches) in diameter. The larger hole measures 8.5mm (.33 inches) in diameter. The area where the flint would have been placed measures 9.65mm (.38 inches) in width.

Figure 70. Flintlock hammer and round lead shot.

V. Unknowns

Glass fragments were determined to be of unknown function if they lacked diagnostic features, such as seams, stretch marks, embossing, or other features, which would aid identification of the product contained and therefore the function of the artifact. Some fragments have diagnostic features, but are of such a small size as to make them unidentifiable past a general bottle category.

Glass Aqua

Bottle (minimum vessel=2)

Two aqua finishes and eight neck fragments were recovered. The bottlenecks are hand blown and the finishes are hand applied, with typical small bubble inclusions throughout the glass. The finishes are one part and flared (Jones and Sullivan 1989: 90-91). The lip on both vessels measures. 9cm. The full neck and bore measurements are present on only one bottle. The bore measures 1.7cm in diameter and the neck measures 7cm in length.

Bottle (minimum vessel=1)

Fourteen fragments of a single aqua bottle were recovered. The glass is extremely corroded and flaking with an iridescent patina. Two fragments were from the finish, which is a one-part finish with a flat sided, folded out lip. The lip measure .9cm and the bore measure 2.9cm. Twelve fragments are from the neck, which measures 5 cm in length.

Bottle fragments (minimum vessel=3)

Sixteen fragments that can be identified generically as aqua bottle fragments were recovered. Two were finishes, five were neck fragments, four are body fragments and five are base fragments. The two finish fragments have a one part, folded out and rounded finish (Jones and Sullivan 1989: 92). 02-1099 is a small base fragments with a glass tipped pontil mark (Van Der Bossche 2001: 64), which measures 5.7mm in diameter. 03-1972 is a base fragments with a glass tipped pontil mark (Van Der Bossche 2001: 64), measuring 9.6mm in diameter.

Embossed, aqua (Minimum vessel=1)

Eight fragments of embossed aqua glass were recovered. All have one to two partial letters embossed into the glass. This was typical of proprietary bottles often containing medicines or culinary offerings. Due to the extremely fragmented nature of the artifacts identification was not possible as to contents and function.

Unidentified: 171 fragments of unidentified aqua glass were recovered. 151 fragments were of curved glass, and sixteen were flat glass. Four represent fragments of bottle shoulder and neckpieces.

Amber, bottle (Minimum vessel=1)

Twenty-six fragments of curved amber glass were recovered. All appear to represent bottle glass with a minimum vessel count of one.

Clear

Bottle finishes (minimum vessel =3)

Four fragments of clear bottle finishes were recovered. 02-2903 has a hand applied, one part flanged lip, which measures 3.3mm. The neck measures 1.9cm in length, and the bore is ground. 03-698 has a hand applied one part flared lip which measures 5mm. The bore is 9.6mm in diameter and the neck measures 11mm in length. 03-2662 has a hand applied one part flanged lip which measures 3.5mm and a neck which is 1cm in length.

Unidentifiable glass: Thirty-six fragments of burned clear glass were recovered.

Ninety-six fragments of clear curved glass were recovered.

376 fragments of clear flat glass were recovered. These most likely represent window glass, but due to the fragments being of such small size it cannot be confirmed.

Olive, light, bottle, curved (Minimum vessel=1)

Twenty fragments of a light olive green glass bottle were recovered. They seem to represent a minimum of a single bottle. These were not included with the "wine" bottles because the glass is so much thinner than the typical "wine" or alcohol bottle. One fragment, artifact 03-786 appears to be a part of a kick-up.

Pale green, frosted, bottle, molded (Minimum vessel=1)

Forty-seven fragments of pale green, glass were recovered from the site. The glass has a frosted appearance on the exterior and interior, but not on the breaks, indicating the frosting was originally present and not a result of depositional oxidation. One fragment is from a bottle base with a circular indentation and rough interior texture. Although the base is concave and rough it does not appear to be empontilled. The fragments consist of both flat and curved pieces, possibly representing panels and shoulder fragments. The small size however makes it unclear. Six fragments have molded angles possibly representing corners. One flat fragment has a molded "&" and a partial curved line embossed into the glass. Seven fragments have an embossed geometric design and the glass is curved. A singe fragment is a bottle finish, which appears to be one-part, flat sided and folded out. Enough of the finish was present to extrapolate an approximate exterior diameter of 4cm or 1.6 inches. Fifty-three fragments are body fragments.

Metals

Ferrous

Barrel hoops

Twenty-three fragments of barrel hoops were recovered. One of the hoops was intact. It measures 15cm (5.9 inches) in diameter and tapers out to 16cm (6.25 inches). It is 2.3cm (.9 inches) in width. The hoop overlaps by 4.2 cm and is possibly secured with a rivet, corrosion making certainty difficult. The remaining xx are all fragmented and fragile due to corrosion.

Unknown, hand forged

One unknown piece of hand-forged iron was recovered. It measures 4 inches (10cm) in length. One end is square measuring .7 inches (1.73 cm). The end of the artifact tapers in length and measures .4 inches (1 cm).

Thirty-seven fragments of flat undiagnostic ferrous metal were recovered from the site.

Lead

Eighty-six fragments of sheet lead were recovered from the site.

A fragment of molded lead was recovered from the site. The piece measures 2cm in width, 1.9cm in length and is .77cm thick. It has "RK" impressed onto the top (Fig. 68). It is unknown what this lead represents.

Figure 71. Lead piece with RK molded into it.

Appendix C

Faunal Analysis

Faunal Analysis 35MA41 Newell Site
By Susan M. Colby PhD

Introduction

Faunal samples excavated from 35MA41 Newell Site were analyzed in this laboratory. This analysis was undertaken to determine what kinds of animals were used and how they were processed. Such information, when considered in context with the other artifacts and ecofacts, helps reconstruct past activities in this historic area of Oregon.

Methodology

The sample had been inventoried, cleaned and was well labeled. Many specimens had erosion damage but most were identifiable. Bone identifications were determined using the reference collection and research materials of this laboratory.

The sample consisted of mammal remains only. The unidentifiable bone was classified as "Large Mammal" (cow size) or "Medium Mammal" (sheep/pig size). Careful and close examination with a 10X hand lens determined cultural modifications, such as saw and blade scars.

The computer program "dBase III Plus" was used to catalog, sort and tabulate the data, which were then listed by area and catalog number in the attached computer printout. Taxon and element name were given whenever possible.

Results

The sample consisted of 107 bone fragments (weighing 862.9 grams). None had been burned. Aside from intrusive gopher and vole skull parts, the only wild specimen was a deer antler that had been sawed off and later gnawed. The remainder of the sample represented domesticated mammals (Table 17). Of the 88% of the sample that could be identified to taxon, all were *Bos taurus* (cow), *Sus scrofa* (pig), or *Ovis/Capra* (sheep/goat). The most common taxon identified was sheep/goat (62% of the identified remains). These two species (sheep and goat) can rarely be distinguished from one another in a small sample. Just one specimen was definitely sheep, the surface find of a distal radius. Next common was cow (19%), and 7% of the identified sample was pig.

All seven of the pig specimens were teeth, and several sheep/goat teeth were present as well. This suggests that both pigs and sheep/goats were butchered on site. The absence of cow teeth on the other hand, may mean that just edible sections were brought to the sire after removal of the head; inedible extremities (phalanges) were removed on site.

Table 17. Summary of Results by Taxon.

Taxon	Common Name	Number of Fragments	Number modified	Bone Weight(grams)
Large Mammals:				
Bos Taurus	Cow	18	8	420.8
Unidentified lg. Mammal		4	2	68.9
Medium Mammals:				
Sus scrofa	Pig	7	1	12.6
	Sheep/goat	58	3	261.2
Ovis/Capra & Ovis sp.	Deer	1	1	71.3
Odocoileus sp.			0	25.8
Unident. Med. Mammal				
Small Mammals:				
Thomonys sp.	Gopher	4	0	0.9
Microtus sp.	Vole	6	0	1.4
Totals		107	15	862.9

Modifications

Waste was buried rather than burned. Fifteen bones had been cut and/or sawed. Hand-sawed bones are generally older than those cut by machine. Hand-sawed meat cuts had proveniences: 03-560; 03-2605; 03-3816. The more recent specimens, as evidenced by modern machine-sawed cuts, were at 02-2267; 03-2649A; 03-2601.

Table 18. Modified Bones (Knsc=knife/blade score; Knc=knife/blade cut; Machine=machine sawed.)

Catalog #	Taxon	Element	Modified	Comment
2267	**Bos taurus**	Humerus	3 knc, Machine	mid posterior roast
2507		Phalanx	Ax cut	removed as waste
2909	*Bos taurus*	Calcaneus	Ax cut	shank roast
560	*Bos taurus*	Radius, prox.	Handsaw, Ax	foreshank, brisket
1052	*Bos taurus*	Rib	Cut midshaft	short ribs
1599	*Bos taurus*	Rib	2 Ax cuts	1trial and 1 true cut
2605	*Bos taurus*	Rib	Handsaw mid.	
2649A	*Bos taurus*	Lumbar Vert.	Machine Saw	split in two, sirloin
2267	*Bos taurus*	Femur, distal	4 knc	leg of lamb
1598	*Ovis/Capra*	Rib, shaft	Cut	rib chop, roast or rack
3816	*Ovis/Capra*	Tibia, distal	Handsaw	leg of lamb
2798	*Ovis/Capra*	Canine	2 knsc	tongue?
1216	*Sus scrofa*	Radius, distal	Ax, scraped	Foreshank
2601	Lg. Mammal	Longbone	Machine saw	Shaft
1600	Lf. Mammal	Antler	Handsaw	gnawed
	Odocoileus sp.			

Summary and conclusions

This small sample represents historic and modern use of domesticated animals at this site. There are no remains suggesting prehistoric use. Most of the specimens are sheep/goat. Since several sheep/goat teeth are present these animals, as well as pigs, may have been butchered on site. The absence of cow skull parts, but presence of phalanx, suggest that beef cuts were brought in and then trimmed on site. Various cuts of meat were used.