

**Foodways at Fort Yamhill, 1856-1866: An Archaeological and Archival Perspective**

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## INTRODUCTION

Fort Yamhill, was a frontier U.S. military post was positioned at the end of a long supply train stretching from the shipping ports of the eastern seaboard to the small post on the Yamhill River. This distance created numerous supply problems including the shortage of food that often resulted in the issue of subsistence stores that were meager or spoiled. To address these difficulties, archaeological and archival evidence suggests that the soldiers serving at this post were supplementing the Commissary issued ration with subsistence hunting and gathering, produce from the post garden, purchases from the post sutler and goods contracted from local farmers. The commissary issues and faunal remains demonstrate striking differences in the types of foods being consumed between the commissioned officers and the enlisted men, differences that can be attributed to socio-economic status differentials.

Located on the south fork of the Yamhill River, Fort Yamhill was established as part of a three fort system, along with Fort Hoskins and Fort Umpqua, to guard the newly created Coast Reservation in March 1856 (Figure 1). The post was constructed on a high hill that over looked the Yamhill River and the Grand Ronde Indian Agency and it allowed the military to monitor and control traffic on and off the Reservation, along the Old Killamuck Trail and the road to Tillamook. During the American Civil War the fort played an important role in keeping the State of Oregon “loyal” to the Union by controlling and discouraging local secessionist movements in the Willamette Valley. With the close of the war and with the dissolution of the secessionist movement in Oregon the post was no longer necessary and was closed in July of 1866. The fort was composed of twenty-four buildings including six officers houses (2-3), a blockhouse (4), adjutant’s office (5), guardhouse (6), commissary and quartermaster warehouse (7), company barracks (8), mess hall (9), company kitchen (10), hospital (11), five laundress quarters (12), post bakery (13), stables (14), blacksmith shop (15), carpenter shop (16) and sutler store (17) (Figure 2).



Figure 1  
Map Showing Location of Fort Yamhill in Northwest Oregon

From 1856 to 1861 the post was garrisoned by companies of the 9<sup>th</sup> Oregon Mounted Volunteers, 4<sup>th</sup> U.S. Infantry, 1<sup>st</sup> U.S. Dragoons and 9<sup>th</sup> U.S. Infantry. From 1861 to 1866 the post was garrisoned by companies of the 4<sup>th</sup> California Volunteer Infantry, 1<sup>st</sup> Washington Territorial Volunteer Infantry and 1<sup>st</sup> Oregon Volunteer Infantry. The size of the garrison at Fort Yamhill ranged from a low as nine men in June 1861 to as high as 156 men in September 1856, but usually averaged around seventy-one men.

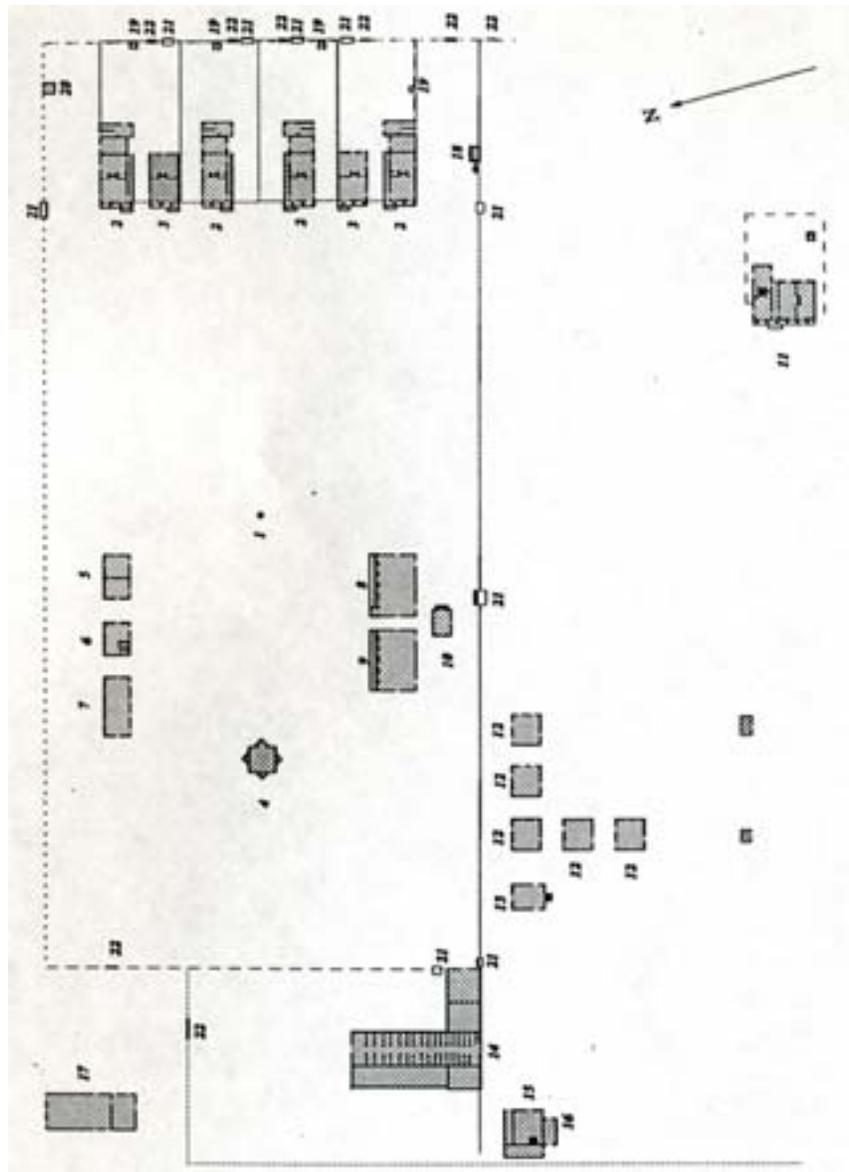


Figure 2  
 1864 Davison Map of Fort Yamhill (Adams 1991:51)  
 Building Numbers Referenced in Text

#### FOODWAYS AT FORT YAMHILL, 1856-1866

Subsistence supplies for the garrison could be procured from five major sources; a Commissary of Subsistence stationed at a military depot, by subsistence contracts made with local farmers and merchants, from produce and livestock raised by soldiers of the garrison in post gardens and pastures, foraging produce and hunting game from the local environment and purchasing subsistence articles

from the sutler's store. The Commissary at Fort Yamhill was charged with requisitioning subsistence supplies from the Commissary of Subsistence at Fort Vancouver, W.T. As supplies ran low, the Commissary would submit a request for the necessary supplies to be shipped from Fort Vancouver via steamboat down the Willamette River to Dayton, Oregon. At Dayton the subsistence articles were off-loaded onto wagons detailed from the Quartermaster Department and transported the remaining thirty miles over land to Fort Yamhill. These shipments occurred on a frequency of about one shipment every 2.23 months between September 1856 and March 1862 (FYCB 1856). The subsistence articles that were only procured from the Commissary of Subsistence at Fort Vancouver included beans, hard bread, adamantine candles, coffee, corn meal, hams, dehydrated mixed vegetables, dried peaches, pickles, dehydrated potatoes, sour kraut, crushed sugar, powdered sugar tea and whiskey. Other subsistence articles that were procured from Fort Vancouver, but were also procured through local contracts with farmers and merchants in the vicinity of Fort Yamhill, included dried apples, sperm candles, flour, molasses, onions, pork, potatoes, rice, salt, soap, brown sugar and vinegar. Subsistence items procured in this way tended to be those items that could be preserved against spoilage and could be transported easily over long distances (Table 1).

Table 1  
Articles Procured from the Commissary of Subsistence at Fort Vancouver (FYCB 1856)

BEANS	DRIED APPLES
HARD BREAD	CANDLES, SPERM
ADAMINTINE CANDLES	FLOUR
COFFEE	MOLASSES
CORN MEAL	ONIONS
HAMS	PORK
DEHYDRATED MIXED VEGETABLES	POTATOES
DRIED PEACHES	RICE
PICKLES	SALT
DEHYDRATED POTATOES	SOAP
SOUR KRAUT	BROWN SUGAR
CRUSHED SUGAR	TEA
POWDERED SUGAR	WHISKEY

What could not be procured from the Commissary of Subsistence at Fort Vancouver, because of shortages in supplies or the inability to transport these goods, was often obtained through contract with local farmers and merchants within the vicinity of Fort Yamhill. These items tended to be items that were fresh or were not easily transported over long distances. The Commissary at Fort Yamhill procured subsistence stores from several local farmers and merchants in Sheridan, Willamina, Salem, Portland and King's Valley (Table 2). The estates of William or Levi Burden, Moses Eades, Nathan Hussey, Jeramiah Lamson, William Savage and John Wallace can be seen on the General Land Office Map [GLO] of 1864 (Figure 3). Subsistence articles procured through contract with local farmers and merchants tended to be items that were fresh and difficult to transport over long distances and included bacon, fresh beef, beets, butter, cabbage, chickens, eggs, lamb, milk, mutton, oysters, pepper, squash, turkey and venison. When the Commissary of Subsistence at Fort Vancouver could not supply all the items needed, the Commissary at Fort Yamhill procured the necessary items such as dried apples, sperm candles, flour, molasses, onions, pork, potatoes, rice, salt, soap, brown sugar and vinegar through local contract (Table 3).

In 1851, as an economic measure to reduce the cost of supplying frontier posts, Secretary of War Charles M. Conrad ordered that frontier post commanders plant vegetable gardens (Utley 1967:36). It was thought that frontier posts might be made self-sufficient by producing their own articles of subsistence. Although Fort Yamhill propagated a post garden its exact location remains unknown. One source stated the 2<sup>nd</sup> Lt. Phil Sheridan (1856-1861), who owned the Wallace Estate due south of the post, (Figure 2) detailed, enlisted men of the company to tend the post garden there in order to produce vegetables for the fort (Adams 1991:73). A later source places the post garden on the property of Rogue River Indian chief Tyee-John, who was settled on the Reservation west of the fort (Barth 1959:84). In any case soldiers were detailed to produce "garden sass" (Barth 1859:111), garden sass was a nineteenth century term for garden sauce or garden vegetables (McDonald 1971). The soldiers

Table 2  
 Civilian Contractors, Their Location and the Articles Provided  
 (Barth 1959, FYCAB 1859, FYCB 1856 and FYOB 1856)

Civilian Contractor	Location	Subsistence Articles
Bell & Brown	Salem	Potatoes and Bakery Equipment
William or Levi Burden	Willamina	-
Rowland Chambers	King's Valley	Flour
Moses Eades	Willamina	Apples
Nathan Hussey	Willamina	-
William Ladds, aka W.S. Ladd & Company	Portland	Hops
Jeremiah Lamson	Sheridan	Beef
Litchfield & Co.	-	Hops, Saleratus and Bakery Equipment
J.N.L. Miller	-	Beef, Butter, Milk and Eggs
William Savage	Sheridan	Beef
Benjamin Simpson	-	Beef and Flour
A. Weil	Sheridan	Tobacco and Whiskey
Franklin Yocum	Sheridan	Apples

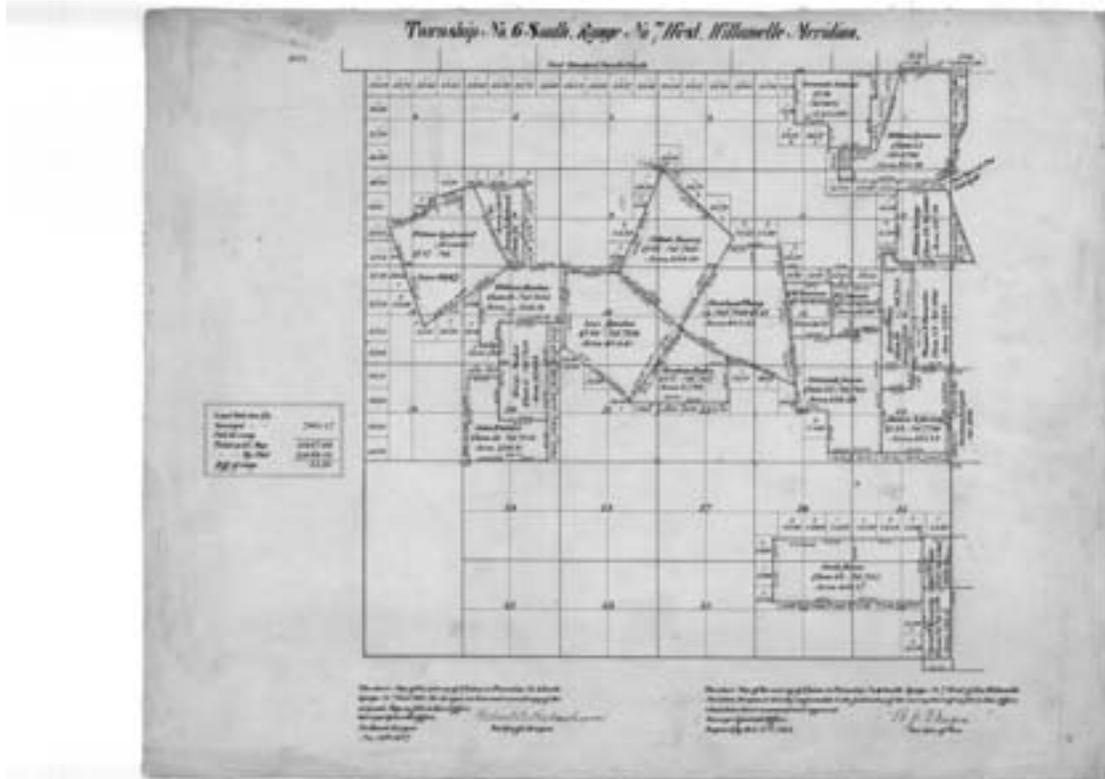


Figure 3  
 1863 General Land Office Map Showing the Estates of Several Civilian Contractors

Table 2  
Subsistence Articles Procured through Local Contract

Bacon	Oysters	Molasses
Beets	Squash	Potatoes
Butter	Turkey	Brown Sugar
Cabbage	Venison	Vinegar
Chickens	Dried Apples	Milk
Eggs	Sperm Candles	Mutton
Fresh Beef	Pepper	Onions
Lamb	Flour	Pork
Soap	Salt	Rice

garrisoned at Fort Yamhill also appear to have tended a small herd of beef cattle. By Post Order No. 3 of 1861, cattle were to be procured and arrangements made for the pasture and forage for the following year (FYOB 1856). Soldiers may also have been breeding beef cattle as several entries in the Fort Yamhill Commissary Book list beef being added to the commissary stores as “gained [born] in spring” (FYCB 1856).

The 19<sup>th</sup> century U.S. Army tended to operate on the theory of efficiency. This often meant that soldiers were encouraged to provide for themselves by foraging for subsistence through hunting and gathering (Davis 2003:5). Hunting and gathering for subsistence stores at Fort Yamhill appears to be a common occurrence. The journal of Corporal Royal A. Bensell, who served at the fort as part of Co. D, 4<sup>th</sup> California Volunteer Infantry from March 20, 1862 to July 6, 1864, recorded many occasion of dining on local game and produce. Corporal Bensell and his fellow soldiers dined on white-tailed deer (*Odocoileus virginianus*), western gray squirrel (*Sciurus griseus*), rabbit (*Leporidae*), quail (*Odontophoridae*), grouse (*Tetraoninae*), trout (*Oncorhynchus* spp., *Salmo* spp. or *Salvelinus* spp.), salmon (*Salmonidae*), seal (*Pinnipedia*), oysters (*Ostreidae*), and mussels (*Mytilidae*) (Barth 1959:14, 41, 46, 80, 88, 98, 124, 149, 150 and 161). They also harvested strawberries (*Fragaria virginiana*), blackberries/dewberry (*Rubis* spp.), huckleberries (*Vaccinium*), salmonberries (*Rubus spectabilis*),

sallalberries (*Gaultheria shallon*), cherries (*Prunus serotina*), and nuts (Barth 1959:3, 26, 28, 35, 37, 41, 43, 61, 111, 150 and 167).

The last source of subsistence stores, and the most costly for the soldier's pocket book, was the sutler's store. The sutler was a licensed merchant who was appointed or approved by the Secretary of War to operate a general store on or near a military post for the purpose of providing for sale to the troops articles that were necessary but not provided for by the Army (USWD 1825:par. 339). Fort Yamhill witnessed the service of several post sutlers; Taylor (1856), Benjamin Simpson (1862-63) and Gilbert Litchfield (1863-64). For the benefit of controlling a monopoly on non-military goods, the sutler was required to pay a monthly tax and was obligated to stock certain items to be determined by the commander of the post. Although no records are known to indicate what was sold at the Fort Yamhill sutler's store, a document titled *Articles to be Kept in Sutlers Store* in the Fort Simcoe, W.T. Council of Administration Book, dated October 1856 can give provide a general idea. Among the list of required goods were knives and forks, spoons, tin plates, tin cups, chewing and smoking tobacco, pipes and cigars, mustard, pepper, saleratus, yeast powders, syrup, pickles, preserved meats, fruits, oysters and vegetables such as dried apples and peaches and assorted catsups (FSCAB 1856). Corporal Bensell does mention consuming chicken, mutton, eggs, turkey, shortcakes, cake, milk, butter, beer, whiskey, cider and tobacco that were not issued as part of the ration and therefore might have been purchased from the post sutler (Barth 1959:12, 20, 26, 31, 43, 46, 58, 76, 111, 144, 164).

Professional cooks and bakers were, for the most part, non-existent in the U.S. Army of the 19<sup>th</sup> century. Most company cooks and post bakers were enlisted men detailed from the line for service in the post kitchen or bakery for period of about ten days. Depending on the size of the company, a soldier could expect to serve as company cook or post baker once every few years (Davis 2003:4). Because of the infrequent detail as company cooks and bakers, soldiers developed little if any culinary skill and the rest of the company suffered for it. Commanding officers in the Army observed this fact but the War

Department did little to remedy the situation and did not publish a manual for army cooks until 1879 (USWD 1879) and the first schools established to train cooks and bakers were not established until 1905 (Risch 1962:507). In the field and on the march rations were usually prepared in inadequate field kitchens or by the individual soldier but at more permanent posts the rations were prepared in company kitchens and post bakeries. The commissioned officers had their meals prepared by orderlies detailed from the line in their own private kitchens located in the rear of the officer's house. Both enlisted men and commissioned officers consumed bread produced at the post bakery, and it is possible that some roasted meats baked in the bakery were intended for consumption by not only enlisted men but also by the commissioned officers.

The company kitchen at Fort Yamhill was a 16x20 foot structure built centered and south of the mess hall and company quarters (Adams 1991:72). The kitchen was equipped with a large hearth and chimney on the east end and three doors, one each on the south, west and north side of the building and with one window also on the north side of the structure. All the buildings at the post were made from pine with frame and vertical weather board construction. The buildings were in the cottage style with projecting roofs (Adams 1991:41). Archaeological investigations of the company kitchen in 2006-2008 revealed a structure measuring 16'4" by 20'7" feet with a brick hearth and fire box measuring 3 feet deep by 8 feet wide and extending into the kitchen proper 4'5" as a working surface and precaution against fire. A porch measuring 6 feet wide and 20 feet long ran along the north side of the structure and can be seen outlined by the absence of river cobbles that were used to pave the interstices between the barracks, mess hall and kitchen. A single sandstone support represents a small porch on the south side of the building indicating the location of a door. The door on the west side of the structure led to a paved and covered work area measuring approximately 16x20 feet on this side of the structure evidenced by the presence of an artificially flattened surface, river cobble, a post support and concentrations of faunal remains suggesting this was a food processing area (Figures 4 and 5).

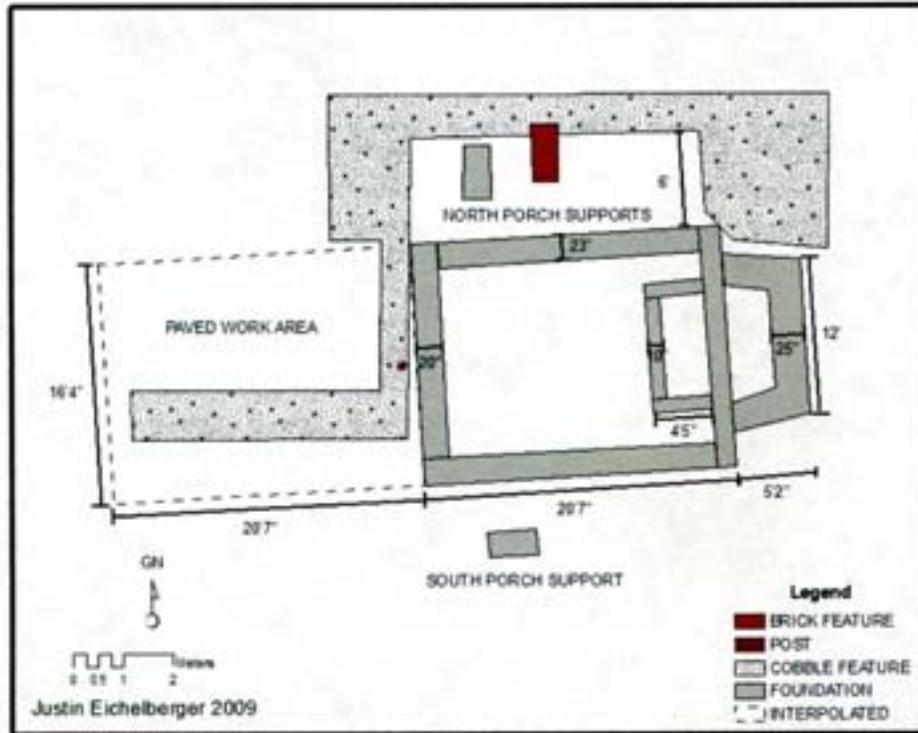


Figure 4  
Schematic Map of Kitchen Feature

The post bakery at Fort Yamhill was located south-west of the company kitchen, between the laundress quarters and the stables just outside the post perimeter fence (Figure 2). The post bakery was composed of two structures, the bake house and the bake oven. The bake house was a 16x20 foot structure with the bakery oven constructed on its south side (Adams 1991:66). Similar to the other structures at the post, the bake house was constructed of pine, frame and weather boarded vertically with a projecting roof in the cottage style. The building had one door that opened toward the parade ground and the perimeter road and had two windows, one each on the east and west walls for light and ventilation (Figure 6). Archaeological investigations of the post bakery in 2007-2009 did not recover any evidence of the bake house but did uncover the bake oven. The exterior dimensions of the bake oven measured 10'2" by 11'4" and the structure was constructed of locally quarried sandstone. The baking chamber was considerably smaller measuring only 2'4" by 4'4" and was constructed from locally



Figure 5  
Overview of the Kitchen Feature

procured brick. The opening for the bake oven door measured 1'5" wide. The typical baking pan of the period measured 17"x22"x3" and could hold fifteen rations (USWD 1864:38). Based on these measurements, the oven at Fort Yamhill could accommodate two baking pans at a time and could therefore produce 30 rations of bread per bake.

By the 1850s the U.S. Army ration consisted of fresh beef, salt beef, pork or bacon; flour, soft bread, hard bread or cornmeal; beans, peas or rice; roasted coffee and sugar; vinegar and salt; and soap and candles (USWD 1855: par. 17). With the outbreak of the American Civil War in 1861, peas were eliminated from the ration; desiccated vegetables, tea and adamantine candles were added and the

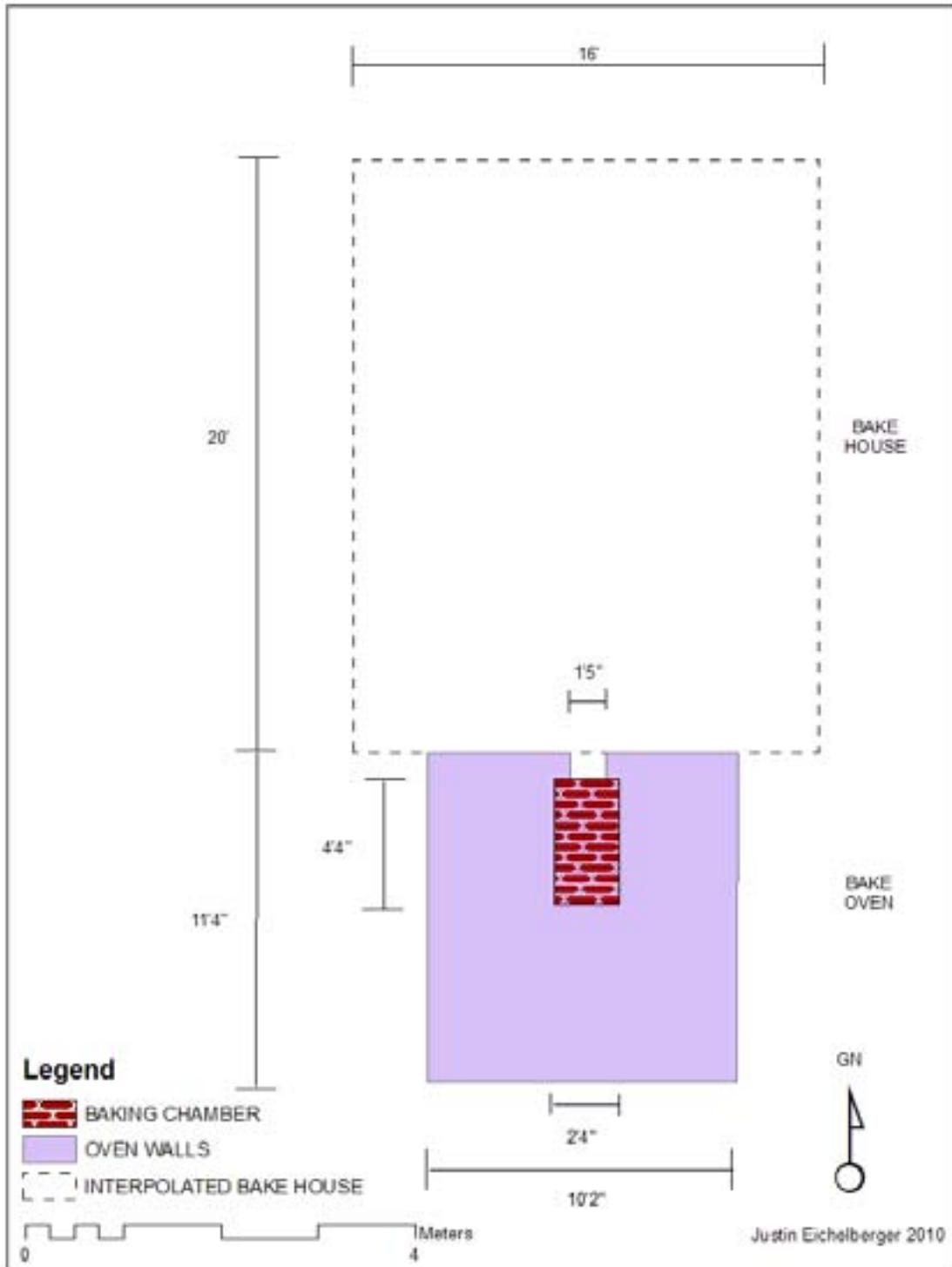


Figure 6  
Schematic Map of Bakery Oven



Figure 7  
Overview of Bake Oven Feature

ration of roasted coffee and sugar were increased (USWD 1861:par. 1191). As the War of the Rebellion raged in the east, Congress determined that certain articles of the ration should be increased in the hopes that this would promote the health and spirit of the Union soldier. In 1863 Congress increased the rations of flour, bread and hard bread; reinstated the ration of peas; introduced a ration of hominy, potatoes and desiccated potatoes, green coffee, molasses and pepper; and reduced the ration of roasted coffee (USWD 1863: par. 15). This increase in rations was intended to be temporary, for in the same legislation, Congress stated that after the end of the insurrection, the ration provided by law and regulation would revert back to its pre-war levels (USWD 1863). Although the American Civil War did

not end until April 1865, Congress reduced the Union ration in June 1864 to the same kind and amount as those prescribed in July 1861 (Table 4).

Table 4  
Comparison of the U.S. Army Ration from 1855 to 1864

Articles	1855			Jul. 1861			Aug. 1863			June 1864		
	oz.	qt.	gi.	oz.	qt.	gi.	oz.	qt.	gi.	oz.	qt.	gi.
<b>MEAT</b>	-	-	-	-	-	-	-	-	-	-	-	-
Beef, fresh	20			20			20			20		
Or, salt beef	20			20			20			20		
Or pork	12			12			12			12		
Or bacon	12			12			12			12		
<b>FLOUR</b>	-	-	-	-	-	-	-	-	-	-	-	-
Flour	18			18			22			18		
Or, soft bread	18			18			22			18		
Or, hard bread	12			12			16			12		
Or, corn meal	20			20			20			20		
<b>VEGETABLES</b>	-	-	-	-	-	-	-	-	-	-	-	-
Beans		.08			.08			.08			.08	
Or, peas		.08						.08		-		
Or, rice	1.6			1.6			1.6			1.6		
Or, hominy	-			-			1.6			-		
Or, desiccated mixed vegetables	-			1			1			1		
Or, desiccated pressed potatoes							1.5					
Or, potatoes	-			-			4.8			-		
<b>COFFEE AND SUGAR</b>	-	-	-	-	-	-	-	-	-	-	-	-
Coffee, green	-			-			1.6					
Or, roasted	.96			1.6			1.28			1.6		
Or, tea	-			.24			.24			.24		
Sugar	1.92			2.4			2.4			2.4		
Or, molasses	-			-			-	.01		-		
<b>SEASONING</b>	-	-	-	-	-	-	-	-	-	-	-	-
Vinegar			.32			.32				.32		.32
Salt		.02			.02			.02			.02	
Pepper	-			-			.04					
<b>SOAP AND CANDLE</b>	-	-	-	-	-	-	-	-	-	-	-	-
Soap	.64			.64			.64			.64		
Candles, sperm	.16			.16			.16			.16		
Or, adamantine	-			.2			.2			.2		
Or, tallow	.24			.24			.24			.24		

The Subsistence Department at Fort Yamhill provided three very distinct rations to three very distinct populations at the post. The standard U.S. Army ration was issued to the enlisted men of the company with the occasional addition of dried apples, sour kraut, dried peaches, onions and whiskey to men who served on extra-duty. Commissioned officers purchased subsistence some of the same subsistence stores that were issued to the enlisted men, but they also had the Commissary procure several articles specifically for purchase by the officers of the company. These items procured for the commissioned officers tended to be of the same type as those procured for the enlisted men, the difference between the two was that the commissioned officers procured and purchased subsistence articles of a higher quality. The third ration was that issued to the sick and injured in the post hospital. The hospital diet was composed of many of the same articles of the standard ration but was composed with fresher ingredients (Table 5).

Archaeological investigations conducted on the Fort Yamhill officer's quarters (2005-2009), the company kitchen (2006-2008) and the post bakery (2007-2009) produced over 1146 bone and teeth fragments (Tables 6, 7 and 8). The fragmentary nature of most of the bone allowed for the taxa to be identified for only 74 of the bone and teeth fragments, the largest taxa represented by total number of identified bone fragments was the domestic cow (*Bos taurus*, N=50), followed by the domestic chicken (*Gallus gallus domesticus*, N=10), the domestic pig (*Sus scrofa domesticus*, N=9) and the whitetail deer (*Odocoileus virginianus*, N=5). Diagram of period meat cuts can be seen in Figure 8 (Abell 1852).

The commissioned officers were consuming fresh beef, pork, chicken, and whitetail deer. Beef was processed into cuts of the clod, neck, rib, round, rump, shin, sirloin and thick flank with the clod being the most common cut of beef consumed. Pork was processed into loin/hand cuts and was the only pork cut present in the officer's assemblage. Chicken was represented by wings, legs, thighs and a single cranial bone. Officers were also hunting wild game, namely whitetail deer, and were processing the meat into rump roasts. The officer assemblage also contained two cross cuts (steak

Table 5  
Issues of Commissary Stores, 1856-1862

<b>Enlisted Men</b>	<b>Enlisted Men Extra Issues</b>	<b>Commissioned Officers</b>	<b>Hospital Diet</b>
Fresh Beef Pork Bacon		Fresh Beef Pork Bacon Ham	Fresh Beef Pork Bacon  Chicken Eggs Lamb Mutton Oysters Turkey Venison
Flour Hard Bread		Flour Hard Bread Corn Meal	Flour
Beans Rice Potatoes	Onions  Dried Apples Dried Peaches  Sour Kraut	Beans Rice Potatoes  Onions  Dried Apples Dried Peaches Pickles Sour Kraut	Beans Rice Potatoes Cabbage Onions Squash Dried Apples  Pickles
		Milk	Milk Butter
Rio Coffee Tea		Costa Rica Coffee Java Coffee  Tea	Rio Coffee
	Common Whiskey	Common Whiskey Superior Whiskey	
Brown Sugar		Brown Sugar Crushed Sugar Molasses	Brown Sugar Crushed Sugar Molasses
Vinegar Salt	Salt	Vinegar Salt	Vinegar Salt Pepper
Soap	Soap	Soap	Soap
Sperm Candles Adamantine Candles	Sperm Candles Adamantine Candles	Sperm Candles Adamantine Candles	Sperm Candles Adamantine Candles

cuts), one foreshank crosscut of a large mammal probably a cow and one handshank crosscut from a medium-sized mammal probably a pig. In the company kitchen cooks were processing and cooking fresh beef, pork and chicken. Beef was processed into cuts of chuck, clod, rib, round, rump, sirloin and thick flank with round roasts being the most common cut of beef consumed. Pork was processed into the head and loin/hand cuts. Chicken was represented by a single thigh cut. In the post bakery enlisted men were baking fresh beef and pork. Beef was processed into cuts and baked as cuts of chuck roasts, legs, ribs, rump roasts, sirloin and thick flank. Pork was processed and baked as cuts of loin/hand.

Table 6  
Faunal Remains Recovered from Officer's Quarters

ARCHAEOLOGICAL FEATURE	TAXA	MEAT CUT	NUMBER
OFFICER'S QUARTERS	<i>Bos taurus</i>	Shin	1
-	-	Neck	1
-	-	Clod	8
-	-	Rib	3
-	-	Round	1
-	-	Rump	3
-	-	Sirloin	2
-	-	Thick Flank	4
	<b>Total</b>	<b>8 Types</b>	<b>23</b>
-	<i>Sus scrofa domesticus</i>	Loin/Hand	4
	<b>Total</b>	<b>1 Type</b>	<b>4</b>
-	<i>Gallus gallus domesticus</i>	Thigh	3
-	-	Wing	4
-	-	Head	1
-	-	Leg	1
	<b>Total</b>	<b>4 Types</b>	<b>9</b>
-	<i>Odocoileus virginianus</i>	Rump	5
	<b>Total</b>	<b>1 Type</b>	<b>5</b>
-	Large Mammal	Sirloin	3
-	-	Foreshank Crosscut	1
-	-	Rib	4
	<b>Total</b>	<b>3 Types</b>	<b>8</b>
-	Medium Mammal	Hand Crosscut	1
-	-	Rib	1
	<b>Total</b>	<b>2 Types</b>	<b>2</b>
-	Small Mammal	Rib	1
	<b>Total</b>	<b>1 Type</b>	<b>1</b>
<b>Total</b>	<b>Officer's House</b>		<b>52</b>

Table 7  
Faunal Remains Recovered from Company Kitchen

ARCHAEOLOGICAL FEATURE	TAXA	MEAT CUT	NUMBER
COMPANY KITCHEN	<i>Bos taurus</i>	Clod	3
-	-	Rib	3
-	-	Round	4
-	-	Rump	1
-	-	Sirloin	1
-	-	Thick Flank	1
-	-	Chuck	1
	<b>Total</b>	<b>7 Types</b>	<b>14</b>
-	<i>Sus scrofa domesticus</i>	Head	2
-	-	Loin/Hand	2
	<b>Total</b>	<b>2 Types</b>	<b>4</b>
-	<i>Gallus gallus domesticus</i>	Thigh	1
	<b>Total</b>	<b>1 Type</b>	<b>1</b>
-	Large Mammal	Rib	3
	<b>Total</b>	<b>1 Type</b>	<b>3</b>
-	Medium Mammal	Rib	1
	<b>Total</b>	<b>1 Type</b>	<b>1</b>
<b>Total</b>	<b>Company Kitchen</b>		<b>23</b>

Table 8  
Faunal Remains Recovered from Post Bakery

ARCHAEOLOGICAL FEATURE	TAXA	MEAT CUT	NUMBER
POST BAKERY	<i>Bos taurus</i>	Sirloin	3
-	-	Leg	1
-	-	Rib	3
-	-	Rump	1
-	-	Chuck	4
-	-	Thick Flank	2
	<b>Total</b>	<b>6 Types</b>	<b>14</b>
-	<i>Sus scrofa domesticus</i>	Loin/Hand	1
	<b>Total</b>	<b>1 Type</b>	<b>1</b>
-	Large Mammal	Rib	6
-	-	Sirloin	2
	<b>Total</b>	<b>2 Types</b>	<b>8</b>
<b>Total</b>	<b>Post Bakery</b>		<b>23</b>



Figure 8  
Diagram of Period Meat Cuts (Abell 1852)

DISCUSSION AND CONCLUSION

The Commissary at Fort Yamhill procured subsistence stores in the usual manner for the U.S. Army during the middle of the 19<sup>th</sup> Century. The post relied primarily on the regular shipments of subsistence stores from the Commissary of Subsistence at Fort Vancouver. When these shipments failed to arrive or were inadequate, the Commissary at Fort Yamhill procured subsistence stores by entering into contracts for supplies with local farmers and merchants. To supplement what the Commissary was able to procure through contract, soldiers at the post also propagated a post garden and produced fresh vegetables for the company that would have added much needed variety to their diet. Whenever possible soldiers of the garrison supplemented their rations with wild game and produce or with articles purchased from the sutler's store.

The socio-economic status differences found in the civilian sector of 19<sup>th</sup> century America was also present in the military sub-culture. The entire military system predicated and designed to function by exploiting differences in social status. At Fort Yamhill these status differences were expressed in the material culture of the soldiers stationed there (Bowyer 1992). These status differences can also be seen in the foodways of the commissioned officers and their enlisted men. Enlisted men were only entitled to rations of fresh beef, pork, bacon, flour, hard bread, bean, rice, potatoes, Rio coffee, tea, brown sugar, vinegar, salt, soap, sperm candles and adamantine candles. Commissioned officers of the company, although were not issued rations, could purchase articles of the standard ration and also had subsistence stores specifically procured and shipped to posts for their consumption. In addition to some articles of the standard rations, commissioned officers consumed rations of ham, corn meal, onions, dried apples, dried peaches, pickles, sour kraut, milk, Costa Rica coffee, Java coffee, common whiskey, superior whiskey, crushed sugar and molasses. These were all articles that were more costly and sometimes more perishable than the standard rations issued to the enlisted men. Enlisted men did have limited access to some of these articles, namely onions, dried apples, dried peaches, sour kraut and common whiskey but could only be issued these articles if employed in fatigue and extra duty.

Faunal remains recovered from the fort also show differences between the commissioned officers and enlisted men. In many cases the commissioned officers consumed the same types of meat as the enlisted men, such as beef, pork and chicken. The one exception is the presence of whitetail deer in the officer's quarters and no evidence of the same in the company kitchen or post bakery. This may indicate that because of his rank the commissioned officer was more likely to procure subsistence stores from hunting than his enlisted counterpart. Commissioned officers and enlisted men consumed many of the same cuts of meat, but there were some differences. Although chicken bones were recovered from both the company kitchen and the officers' quarters, only one femur fragment was found in the kitchen whereas nine fragments representing four different cuts of meat were recovered from the officers' quarters. Enlisted men consumed beef prepared as chuck steak which the commissioned officers did not, but the commissioned officers consumed beef prepared as neck and shin cuts for which there is no evidence to suggest that these cuts were consumed by the enlisted men. Both enlisted men and commissioned officers consumed pork and more specifically pork processed as pork loin/hand but only the enlisted men appear to have processed and consumed the pork head.

Although stationed on a remote frontier the soldiers at Fort Yamhill were able to procure adequate amounts of subsistence stores by diversifying their procurement strategies and adapting to environmental and cultural stressors. It is also clear that the economic and status differences that have traditionally been observed in the material culture of archaeological sites can also be found in the archival record and the faunal remains. The kitchen and bakery features at Fort Yamhill are the only known fully excavated features of this type and date known to the author. These features at Fort Yamhill give only a small glimpse into the how the U.S. Subsistence Department function during the 19<sup>th</sup> century and the material culture associated with their functions. More work needed to be done at sites with similar dates, historical and environmental conditions so that comparisons can be made and broader analyses synthesized.

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