

A Comparative Analysis of Two Early Fur Trade Period Sites  
on the Lower Columbia River of Oregon and Washington

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## ABSTRACT

The Lower Chinook of the Lower Columbia River are among the first Natives in the region to have direct contact with Euroamericans in the late 1700s. When maritime fur traders arrived on the Columbia River soon after, the Lower Chinook actively engaged in the trade, incorporating foreign traders and goods into the pre-existing inter-tribal trading system. Potentially hundreds of ships visited and two terrestrial fur trade companies operated posts on the Lower Columbia River during the early fur trade period (ca. 1790-1820) but descriptions of their activities and the goods they traded are largely lacking. Archaeological analysis can increase knowledge of little understood periods in history through identifying patterns in material culture and connecting them to socio-historical factors. The purpose of this thesis is to identify variations and similarities within the two earliest fur-trade associated assemblages on the Lower Columbia, one Native and one Euroamerican in context, to address questions regarding the earliest adoption of mass produced European and Chinese material culture among the Lower Chinook. This will be accomplished by comparative analysis of trade goods imported by Euroamerican traders during the early fur trade period as identified through examination historic of records.

## **DEDICATION**

For Cheifie, who never minded a writing day.

Success is the child of drudgery and perseverance. It cannot be coaxed or bribed; pay the price  
and it is yours. - Orison Swett Marden

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**LIST OF ABBREVIATIONS**

Anno Domini	AD
American Fur Company	AFC
Before Christ	BC
Below Datum	BD
Before Present	BP
Below Surface	BS
Chinese Brown-glazed Stoneware	CBGS
Chinese Export Porcelain	CEP
Hudson's Bay Company	HBC
North West Company	NWC
Pacific Fur Company	PFC
Refined White Earthenware	RWE

## CHAPTER 1: INTRODUCTION

This thesis presents a comparative typological analysis and interpretation of mass produced European and Chinese goods recovered from two formally excavated early fur trade-era (ca. 1790-1820) sites on the Lower Columbia River of Oregon and Washington. The sites included in this study are Middle Village/McGowan (45PC106) and Fort Astoria/George (trinomial not yet issued). Middle Village/McGowan is a multi-component archaeological site located on the north shore of the Columbia that includes an early contact period Lower Chinook Indian village. Archaeological investigations conducted at Middle Village between 2002 and 2005 (Harrison 2005, Wilson et al. 2009) recovered artifacts that were determined to be the earliest fur-trade associated trade goods as yet recovered from a Native context on the Lower Columbia River, likely representing evidence of the earliest contact and direct trade between Chinookan peoples and Euroamerican fur traders. Previous analysis indicated that Middle Village trade goods largely dated earlier than artifacts recovered from well-documented Pacific Northwest terrestrial fur trade sites such as Fort Vancouver, Fort Spokane and Fort Okanagan (Cromwell 2006b; Wilson et al. 2009). A suspected source of trade at Middle Village was Fort Astoria/George, located just eight miles from Middle Village on the south shore of the Columbia. Fort Astoria/George is the location of the earliest American settlement on the west coast of North America. It was established as a terrestrial fur trade post by John Jacob Astor's Pacific Fur Company in 1811. As no archaeological investigations had ever been conducted at the Fort Astoria/George site, no assessment could be made regarding a material relationship between the two sites. This created a question as to the source of the Middle Village trade goods: maritime fur trade vessels or the early traders at Fort Astoria. Limited archaeological excavations at Fort Astoria/George took place in 2012 providing an opportunity to address this data gap.

Prior to the establishment of Fort Astoria/George in 1811, the fur trade on the Northwest Coast of North America was conducted from maritime vessels. These vessels sailed from various American and European ports to the Northwest Coast to acquire furs (initially sea otter pelts) from the indigenous traders who in turn received foreign trade goods. The ships then traveled to China with their cargo of furs and returned home laden with Chinese products

such as tea, silk, and porcelains. During the maritime period, trade voyages were largely financed by individuals or investor groups. With the advent of the land-based trade on the Coast, large fur companies entered the picture. This likely changed not only the conduct of the trade but presumably this shift also left a mark in the archeological record as more a homogenous set of trade goods were provided by these corporate suppliers. Logs of maritime traders and Astorians on the Lower Columbia (Boit 1920, 309; Ronda 1990; Ross 1923) describe regular interactions with the local Lower Chinook population along with other Native groups, and historic maps indicate an anchorage used by maritime trade ships just east of Middle Village (Vancouver 1792). While trading interactions are recorded, records are ambiguous when it comes to describing trade goods in a way recognizable in the archaeological record; this has complicated any attempt at source attribution.

Through comparison of like objects recovered archaeologically from Fort Astoria/George and Middle Village, it is assumed patterns in material culture may be recognized that can inform upon whether trade at Middle Village was more linked to the maritime or the early terrestrial fur trade. To that end, this thesis examines the question: can an archaeological signature be determined for Fort Astoria/George that would help determine the source of Euroamerican-introduced trade goods at Middle Village?

### **Methods**

This research focuses on the analysis of 1627 artifacts from three artifact classes recovered archaeologically from the Middle Village and Fort Astoria/George sites. The primary focus of the research is the examination of supply factors in the formation of the archaeological record through a typological comparison of the two assemblages. The three artifact classes included in this analysis were selected from their potential to highlight variation within the two assemblages and their applicability to the study as documented trade goods with the potential to highlight Native selection factors in the early contact period.

In structuring this analysis, an effort was made to identify the types of trade goods commonly passing from Euroamerican traders to Lower Chinook traders in the early period of the fur trade when maritime traders were active on the Columbia River and the terrestrial trade was in development. Records of maritime fur trade vessels and terrestrial fur trade companies were

referenced to identify commonly traded goods. Artifact catalogs from both sites were then cross-referenced to identify artifacts with well-documented use as trade goods in the fur trade on the Northwest Coast of North America and present in both archaeological assemblages. Three artifact classes are thus included in this analysis: nails, ceramics, and glass beads. As dateable stratigraphic deposits were lacking at the Fort Astoria/George site, production dates of the artifacts, and their periods of availability are used to establish a relative chronology. This analytic approach is based on the assumption that trade goods originating from Fort Astoria/George should be evidenced by correlates in Middle Village assemblage if they indeed share a common source.

A comparative analytic approach is useful for identifying inter-site variation in material culture from which inferences can be made about the social, cultural, and historical differences experienced by occupants of the sites (Smith and Peregrine 2012). Through the variation and similarities identified in this study, supply factors can be examined that can relate to processes affecting the adoption and use of late eighteenth and early nineteenth century mass produced goods by the Lower Chinook residents of Middle Village.

### **Previous Work**

This study relies heavily on information garnered from previously described terrestrial fur trade assemblages and information on the imported goods from Pacific Fur Company (PFC), Northwest Company (NWC), and Hudson's Bay Company (HBC) sites along the Columbia River, or the Columbia Department as the region was known to traders during the period. The NWC was the first of these companies with a significant presence in the region, establishing Fort Spokane (ca. 1810-1826) near the present-day city of Spokane. In addition to Fort Astoria/George, the PFC founded Fort Okanogan (ca. 1813-1821) at the confluence of the Okanogan and Columbia Rivers in northeastern Washington. All three posts were operated by the NWC for the period from ca. 1813-1821 and supplied via annual ships from England that landed at Fort Astoria, by then renamed Fort George. Both Fort Spokane and Fort Okanogan were excavated in the 1950s by National Park Service archaeologist Louis Caywood (1954a & 1954b). Later, Combes (1964) conducted more excavations at Fort Spokane and Graeber (1968) at Fort Okanogan. Little in-depth analysis exists for the majority of artifacts recovered

from these sites; however, Cromwell (2006b) has re-analyzed ceramics artifacts from Fort Spokane.

All the above mentioned posts passed to the HBC in 1821. When the HBC established Fort Vancouver (ca. 1826-1860) near present-day Portland, Oregon, Fort Vancouver eclipsed Fort George as the HBC's center of operations in the Columbia Department (the HBC's name for the region) in 1829. Separated by less than 100 miles, a close relationship between the two posts continued until Fort George was abandoned entirely in 1849. As Fort George had served as a depot and warehouse for ocean-going cargo coming to and leaving Fort Vancouver, material exchange was extensive.

Beginning in the 1940s, Fort Vancouver has been the subject of ongoing and extensive archaeological study, amassing a large body of data on many topics concerning the later fur trade and the pluralistic society created around the Fort (Caywood 1947, 1948 a- b, 1949, 1955; Cromwell 2006a; Hussey 1949, 1957; Kardas 1970, 1971; Ross 1976). While not established until after the period of focus for this study, comparison of goods recovered from Fort Vancouver proves useful given the lack of integrity of the Fort Astoria/George deposits. This data has provided much comparative data used to establish relative chronology and potential sources of artifacts analyzed here.

Although not undertaken here, further comparative studies of material culture from related sites may help refine the attribution of fur trade goods and contribute to larger-scale pattern recognition across fur trade sites. Cromwell (2011) undertook such a comparative study, examining European and Chinese-manufacture ceramic artifacts recovered from four Pacific Northwest fur trade sites. Three of these are Chinookan village sites on the Columbia River; Meier (35CO5), Cathlapotle (45CL1), and Middle Village (45PC106). The fourth site is the Northwest Company's Fort Spokane (ca. 1810-1821). Better attribution of goods recovered from Middle Village will create a clearer picture of the factors at play in the initial adoption of Euroamerican material culture among the Lower Chinook as a local example for wider-scale studies in a Native response to culture contact. Chapter 2 will describe traditional Chinookan culture to give the reader perspective on the group and factors relating to their involvement in the fur trade.

## CHAPTER 2: ETHNOGRAPHIC CONTEXT

This chapter will introduce the reader to the traditional Chinookan cultural complex as currently understood from the archaeological, ethnographic, and historic records. An understanding of traditional Chinookan culture provides a context in which to view post-contact trade activities of the Lower Chinook and the adoption of introduced Euroamerican material culture. As will be further explained below, *Chinookan* refers a variety of culturally related Native groups occupying the Lower Columbia River while *Lower Chinook* refers to the specific Chinookan group that is the focus of this thesis.

### Introduction

Ship logs and journals kept by Euroamerican explorers and maritime fur traders constitute the earliest known descriptions of the indigenous peoples of the Northwest Coast of North America, including the Lower Chinook at the mouth of the Columbia River (Vibert 1997, xii). These texts were often not meant to capture ethnographic truths but were focused on information useful to commercial interests, such as the trade goods produced by Natives, their willingness to interact with whites and the terms of trade with them. Some recorded sensationalized and racialized tales either due to misunderstanding or misrepresentation of Native cultures. Indeed, these writers were not trained cultural observers nor was ethnography the reason for their presence on the Northwest Coast. While many important facts of Native life during the early contact period are captured, these texts have also negatively shaped subsequent understandings of Native histories in profound ways (ibid). To be sure, some early authors show acumen for observation, recording detail, and cross-cultural understanding, at least glimpses of it, that is rare at the time (Franchère 1967). Beginning in the era of Euroamerican settlement, authors such as James Swan provide a portrayal of Lower Chinook life at that time (Swan [1857] 1972).

It should be kept in mind that cultural variability existed both geographically and temporally on the Northwest Coast. When comparing extreme northern and extreme southern Northwest Coast groups, the variations are most apparent but more localized variation also existed (Sobel 2006, 163). Local environmental conditions and interaction with neighboring culture groups may explain some of these differences prehistorically. The cultural observations of



historic period may not have held true for the more distant past. By the mid-1700s introduced diseases appeared on the Northwest Coast and unsettled Native societies. Later, the impacts of Euroamerican trade followed by settlement and destructive American policies further altered traditional Native cultural practices (Boyd 1985, 2011, 7; Hajda 2013, 147; Rahn 2002).

### **The Lower Chinook: A Definition**

The term *Chinook* or *Chinookan* is applied to speakers of the many dialects within the Chinookan linguistic family (Sapir 1929; Silverstein 1990, 533). Although many dialects existed, two main classifications have been applied to Chinookan groups. *Kiksht* or *Upper Chinook* was spoken along the Lower Columbia River from above Cathlamet, Washington, to The Dalles, Oregon, and *Chinook proper* or *Lower Chinook*, was spoken on the Columbia River estuary and most of Willapa Bay (Boyd 2011, 4; Gibbs 1876, 164; Ray 1933, 38). These linguistic differences are employed to distinguish between groups, as tribal affiliations are not fitting of the traditional political structure practiced among these peoples. The moniker of 'Chinook tribe' has been used incorrectly as an ethnic identifier since the arrival of Euroamericans in the region and reflects their misunderstanding of local conditions of politically independent, but socially and culturally bonded villages or groups of villages. Tribal names with which we are now familiar often originated from village or place names visited by early whites and erroneously used to describe larger groups of people who may have appeared similar to them; however, these names do not reflect how these people identified themselves (Hajda 2013, 147; Ray 1938, 35). Among these tribal monikers referring to Chinookan peoples are: Lower Chinook, Clatsop, Cathlamet, Wahkaikum, Willapa, Shoalwater Chinook, Multnomah, Clackamas, and Cascades (Silverstein 1998, 533-534). The modern Chinook Indian Nation includes descendants of the first five groups listed. While a subject site of this thesis is a Lower Chinook village site, Middle Village, the ethnographic information presented here applies to Chinookan peoples more generally.

The territories occupied by Chinookan peoples at the time of European contact stretched over 200 miles along both sides of the Columbia River, from its mouth and the adjacent Pacific coastline, upriver to near the present-day city of The Dalles, Oregon, and along inland rivers and streams of the Columbia River drainage (Minor 1983, 6). This stretch of river, from the

western edge of the Columbia Plateau to the Pacific Ocean, is referred to as the Lower Columbia River (Figure 1). Interspersed among Chinookan groups were Salish- and Athabaskan-speaking peoples. The physiography of the region is varied and includes: high mountain ranges, lowland alluvial plains, forested uplands, an expansive tidal estuary, and outer coast (Sobel, Ames, and Losey 2013, 23). The climate is generally mild with abundant rainfall, a long growing season, and abundant vegetation but becomes more arid and variable moving east. The Columbia flows over 1200 miles before meeting the Pacific Ocean at its four-mile wide mouth. Within this context, traditional Chinookan culture formed.

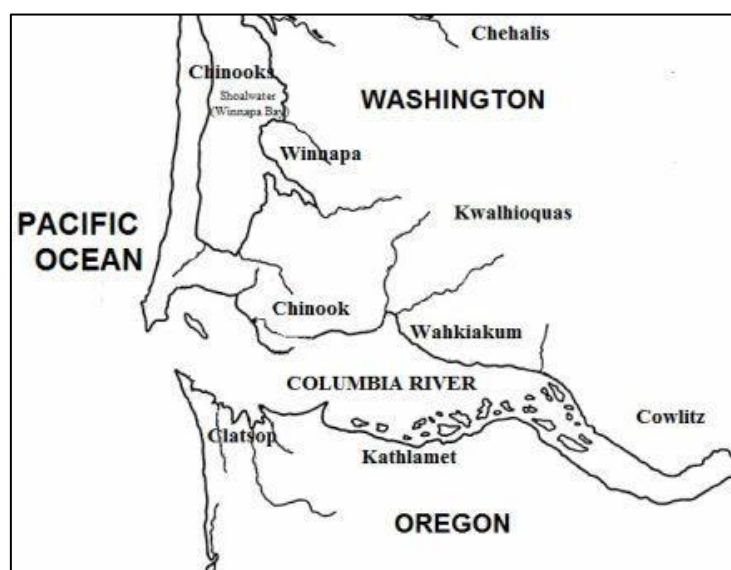


Figure 1. Chinookan groups living near the mouth of the Columbia River historically. Map source: L.K.Alchin, 2015.

Ethnographically, Chinookan groups practiced a variant of the Northwest Coast culture type. Following Kroeber's (1939) culture area approach to organizing cultures based on shared patterns of cultural traits and complexes within a defined geographic area, the Northwest Coast culture type is characterized by highly developed social, political, artistic, economic and ceremonial cultural components. As a geographic area, the Northwest Coast stretches along the Pacific Coast of North America from southeast Alaska to northern California, and inland to the Cascade/Coast Range crest. Ames (1994) identifies three subareas: the northern, central, and southern coast. The territories occupied by Chinookan peoples are within the southern Northwest Coast (Ibid., 209; Ames, 2005, 62). Based on eight basic traits shared by

Northwest Coast societies ethnographically, Ames and Maschner (1999) have labeled these shared cultural attributes as the Developed Northwest Coast Pattern.

The basic shared characteristics are:

- semi- to fully-sedentary habitations
- economies based on producing and storing large amounts of seasonally available foods
- food production primarily based on a few highly productive resources requiring labor organization for exploitation, supplemented with secondary resources
- economies organized around corporate households
- people actively manipulating their environments to increase resource productivity
- highly developed complex tool technologies specialized for hunting, fishing, plant gathering, and crafts, such as woodworking
- dense populations of people, many with occupational specialization
- the presence of social hierarchies with permanent leadership positions

This cultural pattern was established around 4400 B.C. (Sobel, Ames, and Losey 2013, 31).

The causes, timing, and sequence of the evolution of cultural complexity on the Northwest Coast are key questions of debate for anthropologists studying the region (Ames 1994, 210-15). Environmental change, the role of salmon and intensification of salmon fishing, and technological and methodological innovations are all possible causal factors that are represented in differing theories (Ames 1985; Fladmark 1975; Matson 1992; Suttles 1968). Cultural complexity continued to evolve through the early contact period with some features becoming more developed (Ames 1994, 217; 2005, 62-63; Cressman et al. 1960; Matson and Coupland [1994] 2009).

It can be acknowledged that post-glacial environmental conditions on the Northwest Coast created a resource-rich environment that allowed for cultural elaboration. While classified as complex hunting-gatherers (Childe 1936), many of the cultural traits of Northwest Coast societies discussed above have traditionally been viewed as characteristic of agricultural societies. The Northwest Coast is an example of a non-agricultural socially complex society that proves an exception and calls in to question the validity of these generalizing models (Deur and Turner 2005; Killion 2013; Steward 1955; Suttles 1968; Testart 1982). As mentioned previously, inter- and intra-group cultural variation did exist on the Northwest Coast and localized environmental conditions can explain some of this.

For Chinookan peoples, the Columbia River was a major force in shaping cultural practices. The river provided resources, transportation, and enabled interaction and trade with other groups, both coastal and upriver peoples. Canoe-based land-use patterns facilitated intensive harvests of a range of seasonally abundant saltwater, freshwater, and terrestrial resources (Sobel, Ames, and Losey 2013, 31). Settlement patterns were shaped by seasonal access to resources, especially seasonal anadromous fish runs. While generally following the Developed Northwest Coast Pattern mentioned above, Chinookan cultural practices, specifically in the artistic and ceremonial realm (i.e., potlatch ceremonies), tended to be less elaborate or detailed as compared to more northern Northwest Coast groups. Also, some Chinookan traits indicate the influence of their Plateau and Great Basin neighbors up the Columbia River (Drucker 1955; Ray 1937, 371-372). The display of Plateau and Great Basin traits intensifies among the Upper Chinook who interacted frequently peoples from these cultural areas.

### **Chinookan Resource Use**

The environmental diversity of the Lower Columbia River region - sandy beaches, dense forests, open prairies, marine, riparian, and lentic habitats - provided a varied resource base creating a stable and nutritionally-sound food supply throughout the year (Deur and Turner (2005, 8-9). To illustrate the diversity of resources utilized by the Chinook, Gahr (2013) provides the following tally of those utilized for subsistence: 86 taxa of shellfish, fowl, and mammals used for meat; 27 species of fruit; 3 different nuts and seeds; 12 species of greens; over 35 species of root foods. An additional 118 taxa were used in Native technologies (wood, fiber, skins, horn, bone, stone). The journal of Gabrielle Franchère (1967), one of the original Fort Astoria settlers, offers details on the seasonal conditions of climate, flora, fauna, and Native resource use, especially near the mouth of the Columbia where his time was concentrated.

Certain species played an especially important role in subsistence and influenced broader cultural traditions and patterns. These “keystone species” for the Chinook include salmon, elk, deer, seals, sea lions, sturgeon, berries, wapato, camas, and western red cedar (Gahr 2013, 65). The importance of these resources is reflected in the ceremonies that celebrated them

(Boyd 2013). While fish was of primary importance to the Chinook diet and economy, secondary resources including other aquatic species, plants, and game played a much greater role in Chinook economy than has been commonly recognized (Ames 1994, 2005, 68-69). Given the diversity of environmental zones occupied by Chinookan groups, locally available resources and harvest times varied. The development of food storage technology allowed surplus to be turned into food stores for later use, providing security in time of scarcity and providing commodities for trade (Testart 1982). A closer examination of the natural resources that shaped Chinookan cultural practices, with special attention to keystone species, follows.

### **Animal Resources**

The environmental diversity of Chinookan territories made available a wide-range of animal resources. The Chinook utilized the fur, flesh, shell and bones of fish, mammal, shellfish, and fowl to produce food, trade material, clothing, and raw materials for technology. With the exception of shellfish, men were generally responsible for procuring animal resources while women conducted the processing.

### ***Fish***

Fish were of primary importance in the diet and economy of Lower Columbia peoples during the ethnographic period. This is reflected in numerous historical accounts (Coues 1965; Franchère 1967; Ray 1938; Swan [1857] 1972). Many aspects of the Chinookan cultural complex are shaped by this resource; indeed some scholars have credited salmon as the key factor to the development social and economic complexity on the Northwest Coast (Fladmark 1975; Matson 1992). Many species were harvested with specific fisheries occurring a certain times of the year and at certain locations. Harvest methods varied depending on the fish species and the fishing location (Butler and Martin 2013, 86; Ray 1938, 107-110).

Salmon (*Oncorhynchus* sp.) were the most prominent fish for consumption trade and the most culturally significant (Gahr 2013, 65; Ray 1938, 107). After rearing in freshwater rivers and streams, salmon venture to the ocean to mature returning to their native rivers and streams to spawn in different seasonal runs throughout the year (Columbia Intertribal Fish Commission 2015; Ruby and Brown 1988, 21). Salmon was a reliable resource, with runs occurring at

predictable times and places. This predictability allowed for the organization of labor to conduct an intensive harvest. The limited seasonal availability and the overall importance of the resource is portrayed in the following quote from Gabriel Franchère (1967, 111-112):

The men are not lazy, particularly in the fishing season. Since they are not hunters and consequently eat little meat (although they like the taste of it), fish, as I have already said, becomes their principal food. They take advantage, therefore, of the seasons in which it can be caught, and catch all they can, realizing that the periods between seasons will be for them times of scarcity and fasting if they do not provide enough.

So important was the spring Chinook salmon run to Chinookan culture and livelihood that its arrival was marked with one of the principal ceremonies of the year. The First Salmon Ceremony was a celebration of the return of the salmon run. The ceremony involved the ritualized cutting, cooking, consumption, trade and disposal of the first fish of the salmon run (Ray 1938, 110-111; Ross 1923, 105). It was believed these rituals were necessary for honoring the fish to insure the return of the salmon run each year (Boyd 2013, 182-185).

Sturgeon (*Acipenser* sp.) was a focal fishery in the early spring, particularly near the mouth of the Columbia (Butler and Martin 2013, 99). Also known as candlefish or smelt, eucalon (*Osmeridae* sp.) was harvested in the Lower Columbia estuary. The fish enter the estuary from nearshore marine waters in dense schools in the winter and early spring to spawn and were harvested using a dip net or a rake-like tool (Ibid., 87-88; Franchère 1967, 108, 111-113). Dried fish and oil were produced and became important trade items for the Lower Chinook (Gibson 231-233, 1992; Ross 1849, 94-95). In addition to the species in the Columbia estuary, suckers, trout, chub, whitefish, smelt, lampreys were all available to Chinookans farther upriver (French and French 1998, 363).

### ***Shellfish***

Shellfish, including various clam, crab, oyster and mussel species, were gathered from the ocean beaches and estuary shores by hand or with the use of a specialized wooden digging stick (Ray 1938, 112). Willapa Bay was an especially important shellfish-gathering area (Swan 1857, 26). Dried shellfish were traded to upriver peoples. From shells, utensils such as bowls and spoons were created (Silverstein 1990, 538).

### ***Marine Mammals***

Marine mammals provided food, clothing, and a source of oil. Sea otter pelts were a prestige item and traded inter-tribally prior to Euroamerican contact. Seals, sea lions, and sea otters were taken generally by spearing (Swan [1857] 1972, 84). No hunting of whales occurred among the Chinook, however, beached whales were utilized. Blubber was roasted and eaten or oil was rendered from it and it was commonly mixed with dried foods (Ray 1938, 112-115; Swan [1857] 1972, 84; Thwaites 1990, 6:183).

### ***Land Mammals***

The importance of game in historical Chinookan subsistence patterns ranks below fishing and plant foods, but mammals were important as a food and materials supply. Hunting was more important to the subsistence of upriver Chinook who hunted year-round. Downriver, hunting was limited to late summer and fall, outside of the main fishing season (Gahr 2013, 66).

Large game harvest included deer and elk. Elk skins were used to create a form of protective armor, discussed more in the following section on trade. From the village of Cathlapotle and farther upriver, deerskin garments were more important than the cedar bark used near the coast (Boyd 2011, 30; Silverstein 1990, 540). Implements carved of bone and antler included sewing needles, fish hooks, wedges for splitting wood, and various food serving utensils.

Other mammals including beaver, otter, bear, raccoon and rabbits were utilized for food and clothing. Otter, beaver, and other pelts were an important item of intertribal trade prior to contact as fur robes and capes of were a prestige item. Waterfowl were also hunted (Ibid., 537).

### **Plant Resources**

The temperate environment produced a plethora of plant resources with different seasonality creating nearly year-round availability. A majority of subsistence activity was focused on these resources as they accounted for the bulk of the diet, especially at certain times of the year. Besides food, plant provided medicines, raw materials for clothing (hats, skirts), housing (planks, mats), transportation (canoes), storage and cooking (basketry, boxes, fuel), and tools

and utensils. The majority of work relating to harvesting, processing, and manufacturing with plant resources was relegated to women causing one early observer to quip, "...the women are burdened with the hardest labor" (Franchère 1967, 111).

Reflecting the varied environments of the region, utilized plants ranged from aquatic to sub-alpine species. Many plants were not widespread but occurred only in areas with specific environmental conditions (i.e., water's salinity level, density of forest overstory, etc.) (Deur and Turner 2005, 11). These locations, or resource patches, were part of the kin-based resource ownership system practiced throughout the Pacific Northwest (Gahr 2013, 68). This form of ownership conveyed resource management responsibilities. The resource management strategies employed by the Chinook, while not fitting traditional Western definitions of cultivation (thus the reason why Northwest Coast societies are not considered agricultural), employed sophisticated techniques aimed at increasing yields and improving plant populations. These practices ranged from minor to quite significant modification of natural conditions at multiple scales including selective harvest, digging, weeding and pruning, controlled burnings, and rotating harvest year to year (Deur and Turner 2005, 15-17; Gahr 2013, 68).

### ***Berries***

The ripening of berries, usually in late spring, signaled the seasonal movement of Chinookan peoples away from the winter settlements to seasonal camps at important resource patches. Huckleberries, raspberries, cranberries, salal berries, salmonberries, and elderberries were significant berry species (Ibid., 67). Women generally picked and processed berries. Signifying their status as a keystone species, berries feature prominently in the Chinookan cultural complex (Ibid., 65). This is illustrated by the celebration of the First Fruits ceremony and a coming-of-age ceremony associated with the emergence of girls as berry pickers (Boyd 2013, 182-184; Ray 1942).

### ***Roots***

Roots provided food resources but also raw materials for various technologies. Wetland environments are especially important habitats for important root species. Women generally



collected and processed roots. Skunk cabbage (*Lysichitum americanum*), cow parsnip (*Heracleum lanatum*), ferns (*Pteridium* sp.), edible thistle (*Cirsium edule*), seaside lupine (*Lupinus littoralis*), horsetail rush (*Equisetum telmateia*), camas (*Camassia quamash*), and wapato (*Sagittaria latifolia*) are the primary roots that were consumed (Silverstein 1990, 537). Of particular importance was wapato. The starchy tubers of this wetland plant were an important food source and trade commodity for the Chinook. Wapato grew prolifically in wetland areas of the lower Columbia estuary beyond the reach of ocean salinity. Areas around modern-day Portland are known as the Wapato Valley due to the abundance of the plant there (Darby 1996). Wapato was a hugely important trade commodity for the Natives of the area (Gahr 2013, 69).

### ***Grasses and Rushes***

Woven grass baskets were used for gathering, storage, and cooking. Basket design reflected use. Basket making was also an artistic expression. Beargrass was utilized for creating designs in basketry objects (Silverstein 1990, 537). Spruce roots were also a basket-making material. Mats of cattail rushes of differing sizes were sewn for various domestic uses such as serving food, clothing, lining the floor of houses, or for constructing temporary shelters importance of root crops, coiled basketry and root bags were produced at the Cascades (Thwaites 1990, 6:219).

### ***Wood***

A highly developed functional and artistic wood working tradition focused around Western red cedar (*Thuja plicata*) is a distinctive element of the Northwest Coast culture type. Cedar is naturally insect- and rot-resistant, strong, lightweight, and straight-grained making it adaptable to many uses. House planks and frames, rope, bowls, boxes, utensils, carvings, clothing and canoes are among the objects created from the wood, bark, and roots of the tree. Cedar objects often display elaborate symbolic carvings.

Cedar canoes were an integral part of Native life on the Columbia River and remain important cultural icons to this day (Figure 2). The Columbia River was the major travel route from the coast to the interior and canoes facilitated the movement of goods and people. They were also

important to completing subsistence tasks. A cadre of canoe designs was adapted to specialized uses and specific environmental conditions, including travel in the open-ocean to small streams (Silverstein 1990, 540; Swan [1857] 1972, 80; Thwaites 1990, 6:262-264). The largest canoe could carry up to thirty people and their goods, and measured over 30 feet in length (Franchère 1967, 113-114). A single cedar log was crafted into a canoe through a process that included burning out the center of the log and then shaping the canoe using various tools. Carvings often decorated the prow and stern, and paint was applied both inside and out. Paddles were also crafted in different shapes for specific functional reasons. Yew or ash was used to make paddles. The Chinook's skill of maneuvering their canoes in all conditions was much heralded by historic observers and caused William Clark to call them "... the best Canoe navigators [*sic*] I ever Saw" (Thwaites 1990, 6:41).



Figure 2. Engraving titled *Outside of an Indian Lodge* from *The Northwest Coast* by J. Swan, 1857.

Cedar was also used to construct the plankhouses (Figure 3). Winter plankhouses were semi-subterranean square to rectangular post and beam structures with either a shed-style or a gabled roof (Gahr, Sobel, and Ames 2006, 5). Vertical cedar posts were sunk into the ground to support a horizontal ridgepole and a series of rafters sloping away from the ridgepole. Cedar bark cordage held the frame joints together (Thwaites 1990, 6:219). Split cedar planks formed the roof and walls, extending to form gable ends. Near the project area, the oldest

permanent structures are at the Palmrose site at Seaside, Oregon, dating to 2600 B.P. This is a rectangular, semi-subterranean house over twenty feet (6 m) in width and possibly forty feet (12 meters) in length (Phebus and Drucker 1979, 18-19).



Figure 3. Illustration of the interior of a Chinookan plankhouse based on Charles Wilkes, ca. 1840. Drawn by A.T. Agate. Image courtesy of Wikimedia Commons.

Detailed descriptions of early contact period Chinook plankhouses near the mouth of the Columbia are found in Franchère (1967), Gibbs (1874), and members of the Corps of Discovery (Moulton 1990, 6:188), and others. The size of houses varied as some housed several families. Meriwether Lewis describes houses near the mouth of the Columbia as “14 to 20 feet wide and from 20 to 60 feet in length” (Thwaites 1990, 6:218). Differences in plankhouse design or materials were often tied to the season the structure was used, local style, or demographic considerations. Nearer to the mouth of the Columbia, cedar planks from winter houses were often moved to summer settlements and small cedar plank structures with a sloping shed style roof were constructed (Ray 1938, 124-127). This partial deconstruction of winter plankhouses can explain some early historic accounts of abandoned villages reported by (Ray 1938; Thwaites 1990, 6:133).

The fibrous inner bark of the cedar was worked to create many things, including clothing. Franchère (1967, 110-111) describes the mode of use and the manufacture of cedar bark fiber:

Women wear a kind of skirt or petticoat, made of cedar bark which they hang around their waists and which come to the middle of their thighs. This skirt is somewhat longer in back than in front and is made in the flowing manner: they tear off the fine bark of cedar, soak it as one soaks hemp, and lay it out in fringes. Then, taking a cord of the same material they divide the fringes around and tie them down firmly.

Woven conical-shaped hats of cedar bark, and/or sometimes spruce root, with designs in beargrass, horsetail root, or fern stem, were produced by the Chinook near the mouth of the Columbia (Silverstein 1990, 540; Thwaites 1990, 6:221). Watertight twined cedar bark baskets were made for cooking, food storage, and transport (Silverstein 1990, 539).

### **Social, Political, and Economic Organization**

The Lower Columbia region supported one of the highest population densities of Native North America at the beginning of the contact period (Hajda 2013, 146). Along with environmental and technical factors, a complex of highly developed social, economic, and political practices supported this society without the benefit of agriculture. As discussed above, the evolution of the historically observed Chinookan cultural system is not clearly understood (Sobel, Ames, and Losey 2013, 35-37). Tracing the developmental sequence of the individual traits that form the cultural system as a whole is difficult as will become apparent as these traits are examined in the following section.

#### **Settlement patterns**

The Lower Chinook practiced a bi-seasonal and semi-sedentary settlement pattern, occupying winter villages from late fall to the spring and relocating to summer villages or dispersing to temporary camps in small, often family, groups during the warmer months to harvest resources (Minor 1985, 79-83). This settlement pattern was shaped by a subsistence strategy that involved moving between seasonal resource procurement sites (Deur and Turner 2005, 12).

Settlement locations and the timing of movements between them were based on weather conditions and on availability of spatially- and temporally-restricted resources: as temperatures warmed and resources came into season, people dispersed from winter villages returning in the fall. The pattern was adjusted locally to correspond with variation in

environmental conditions and available resources. For example, near the mouth of the Columbia, shellfish gathering on Willapa Bay occurred in the summer and Chinook salmon fishing on the Columbia began in the spring (Minor 1983, 52-57). There is evidence to indicate a change in settlement patterns from the pre-contact to in the early contact period resulting from the cultural shifts in response to the advent of the Euroamerican fur trade (Rahn 2002; Wilson et al. 2010, 400). Evidence of this shift may be interpreted from the presence of a series of historically documented village sites along the north shore near the mouth of the Columbia River, including Middle Village. The north shore of the Columbia was more navigable for Euroamerican maritime trading vessels as compared to the south shore in the area. It is possible the area around Middle Village became more populated in the early contact period so Lower Chinook could more easily interact with maritime fur traders. Such a shift can be seen as conforming to the existing settlement patterns, or movement in response to resources access, vis-à-vis opportunity to trade with Euroamerican fur traders.

Permanent winter villages with substantial plankhouses were located in areas protected from winter storms, generally along estuaries, bays, or smaller rivers and streams; often near a productive winter fishing site. The establishment of this settlement pattern may have followed an increase in salmon populations reflecting the greater importance of the resource (Deur 1999; Deur and Turner 2005, 12). The size of winter villages was quite variable. They could consist of just one or many plankhouses, with each capable of housing multiple family groups and their slaves. Those residing together within a plankhouse may be extended family members or unrelated. Population estimates for Cathlapotle by early visitors indicate a population as large as 1000 people (Boyd 2011, 12). The size of houses also reflected the numbers of inhabitants. Ross (1923, 106) mentions a house with over 80 inhabitants.

Besides meeting basic physical needs, i.e., providing shelter, Northwest Coast plankhouses served important societal functions. The plankhouse served as a center for food processing, storage, craft/technology production, recreation, and ceremonies (Gahr, Sobel, and Ames 2006, 1). While relying on stored food resources during the winter, when most seasonally available resources were dormant and subsistence activities ceased, production turned to more

sedentary tasks such as woodworking, flintknapping, and basketmaking in the shelter of the plankhouse.

Plankhouse interiors could be quite well appointed, depending on the number of inhabitants and overall household wealth (Figure 2). Ray (1938) provides an ethnographic description of a plankhouse interior:

... the houses of the Tsinuk usually sloping each way from the ridge-pole in the center... (a)n excavation of a foot or more in depth is made through the center of the house, in which the fires are built, and where the cooking is done; the raised portion left on either side being covered with boards or mats to serve as a seat, and the bunks for sleeping placed against the sides, sometimes in two tiers.

To separate family quarters within the plankhouse, wood or woven mats partitions were placed. Each family may have had their own fire hearth within their quarters although a communal central hearth was common. Displacing a roof plank above allowed smoke to escape. Items, such as food or personal belongings, were stored in the benches or the rafters. Flooring could be simply imported sand, woven mats, or additional cedar planks.

Lightweight and portable summer shelters were constructed at remote resource collection sites of a light wooden frame with a covering of cattail or tule mats forming the walls and roof. Near the mouth of the Columbia, cedar planks from winter houses were often moved to summer settlements and small cedar plank structures with a sloping shed style roof were constructed (Ray 1938, 124-127). This activity can explain some of the early historical accounts of abandoned villages (Ibid.; Thwaites 1990, 6:133). Some sites were often returned to year after year. Along the main stem of the Columbia, established annual summer villages at productive fishing sites swelled in size during the fish runs as distant kin connected by extensive marital and kinship ties gathered to take advantage of kin-based right to the resource (Minor 1985, 61, 75; Ruby and Brown 1988, 21). This phenomenon extended to other types of productive resource sites including hunting and wapato-gathering grounds (Boyd 2011, 20; Moulton 1991, 7:38).

Permanent or substantial architecture marks a location's significance to its inhabitants. The built environment changes the relationship between humans and the natural environment, and also social relationships. Collecting rather than foraging implies more planning and strategy

and at least semi-permanent residence (Binford 1980). The change from a mobile hunter/gatherer pattern to the establishment of more permanent settlements and ties to a specific place affected social patterns (Levi-Strauss 1982; Wilson 1988). With the shift to permanent architecture, houses became central to the construction of sociopolitical groups (Ames 2013; Deur 1999; Marshall 2006, 55). Construction of substantial structures required considerable investment in time, resources, and manpower; reflective of this investment, the structures were modified and repaired as needed over the years rather than replaced (Gahr 2006; Grier 2006, 97).

### **Sociopolitical organization**

Autonomous kin-based local village groups served as the highest level of any significant sociopolitical structure among the Chinook (Hajda 2005, 7). Larger-scale networks based on social, cultural and economic bonds linked these politically independent villages. A social hierarchy, consisting rankings of elite, commoner, and slave, existed across Northwest Coast society. The class structure was somewhat loosely constructed, based on hereditary status but with the flexibility to change rank (Hajda 2013, 146). Sexual divisions of labor did exist, but women did enjoy a fair level of autonomy and standing. Village heads were recognized, but the position did not hold much authority over his fellow villagers (Gibbs 1874, 185).

Within each village, and between them, were displayed a multi-tiered structure of social units considered by Gahr, Sobel, and Ames (2006) to consist of a family, a household, and a village. A nuclear and/or composite *family* resided together within a portion of a plankhouse. There may be several families plus their slaves in each plankhouse. The unit consisting of all residents of a plankhouse is a *household*. A *village* could contain many or just one household. All of these units were tied to each other to larger social and economic spheres, local and distant, through exchange and kin ties.

Households were the basic unit of sociopolitical and economic organization (Hajda 2013, 148). Membership to a specific household may have been a more meaningful social connection than village or ethnic ties (Ames 2006). Individuals of all social ranks could be included in a household, which displayed aspects of both hierarchy and of communalism (Coupland, Clark and Tanner 2009). Members held collective property, had internal

hierarchy, fluidity of membership, and often had a multi-generational lifespan. Also called a *corporate household*, elite members organized the labor and production of all household members (Gahr, Sobel, and Ames 2006). Such organization of labor allowed the level of production necessary to create a surplus economy. Archaeological evidence from Lower Columbia sites shows evidence of production of specialized goods at the household level (Sobel 2006). Labor was divided according to gender, age, free/slave, specialist/non-specialist, and elite/non-elite (Ames 1994, 211). Household wealth was tied to household membership and its associated production capacity (Gahr, Sobel, and Ames 2006, 1). The collective wealth and prestige of the household was visible in the size and elaborateness of the household's plankhouse.

A *village* consists of people who live in the same winter settlement and were part of the same social unit, mainly in the context of ceremonial and defensive activities, and less so in subsistence activities (Ibid., 5). The territories surrounding inter-related village clusters served as the resource base for those villages (Boyd 2011, 6).

Households, villages and kin groups all held rights to specific resource sites within their territories as defined by seasonal movements. Access to such sites was regulated and the resource managed by the owner group. Stewardship of these resources was a responsibility conferred with these rights (Turner et al. 2005, 151, 156).

Although the groups of the Lower Columbia have been described as "tribes" since some of the earliest descriptions of them, their social political structure does not fit the anthropological concept of tribe as described by Sahlins (1958, 1960) and Service (1962, 1966, 1970). The names of tribes with which we are familiar today were often village names visited by early white arrivals and then spread to describe larger groups of people (Hajda 2013, 147). Family lineage and territory were the meaningful forms of identification to the Natives of the Lower Columbia (Boyd 2011, 6).

### **Marriage and Kinship**

Engaging in village and often group exogamy, marriages between unrelated individuals was used as an alliance-forming mechanism to create ties between villages and households,



extending family influences over large areas. Bilateral kinship reckoning further increased the size of kin networks (Boyd and Hajda, 1987; Hajda 2013, 153). This practice resulted in the formation of vast kin networks. Marriages tended to be within social rank but commonly were between speakers of the different languages. A marriage occasioned the exchange of valuable objects, fitting of the families' status. Wealthy individuals may have multiple wives and drew their wives from a wider geographic area, thus creating far-reaching alliances. Residence was typically virilocal and partilocal (Ibid., 153-154).

As discussed above, kin group membership bestowed access to controlled resource sites and economic rights to those resources although the site may be great distance from an individual's residence (Boyd 2011, 20, 30). Kinship ties offered a safety net in times of scarcity due to conflict or local shortages may be relieved by assistance from distant kin (Moulton 1991, 6:49). The formation protective and economic alliances through marriages continued into the historic era when Euroamerican traders and Native women wed for such purposes. Euroamerican traders as well saw the benefits of the practice from a political and access to trade standpoint and it was a longstanding practice among fur traders to marry Native women.

### **Status**

A class-based social hierarchy structured Chinookan society in which divisions existed between free and slave status and between upper class and commoners. Class was variable and informal, except at the extremes of the hierarchy (Ray 1938, 49). While class was an ascribed status and birth continued to be the dominant factor in social ranking, wealth earned one power and social influence. Economically and socially successful commoners could move into the upper class. Likewise, high-ranking individuals could descend the social hierarchy for a variety of reasons. Class mobility was commonly gained through marriage or attaining wealth through trade (Ibid., 48). Engaging in economic pursuits for personal gain was generally open to all members of society, including slaves.

This type of social ordering has been termed "transegalitarian": being neither fully stratified nor fully egalitarian but combining features of both types of societies (Coupland, Clark and Palmer 2009, 1). The development of social hierarchy is often tied to subsistence surplus

where roles and specializations become more important (Steward and Shimkin 1961, 490-491). Tracing the development of social hierarchy on the Northwest Coast archaeologically has proven difficult but it appears likely this trait went through one or two periods of intensification: ca. 1500-500 BC or ca. AD 500-1000 (Ames 2001, 1). Based on archaeological evidence mainly from burials, including grave goods and skeletal status markers, some form of permanent social ranking was in place by 3000 years ago (Ibid., 3).

The Chinookan system of stratification was based on heredity and also accumulated wealth. The upperclass included those of high birth, prominent shamans, warriors, traders and others (Ray 1938, 48). At the top of the village hierarchy, were those termed ‘chief’ by Euroamericans, who were more likely heads of villages or households (Hajda 2013, 155). Although this recognition was sometimes passed from father to son, the role appears to have been bestowed on an individual whose value lied in his wealth:

These chiefs are honored in proportion to their wealth; the one who has many wives, slaves, strings of beads, and so forth, is a great chief. In this respect, the savages follow the patterns of civilized peoples among whom a man is esteemed according to the money he possesses (Franchère 1967, 115).

While possessing prestige and social value, the village head did not hold much authority over fellow villagers (Gibbs 1874, 185; Thwaites 1990, 6:222). As a chief acquired or lost wealth and prestige, his rank would change. High rank conferred privileges, such as access to prime resources and ability to have many wives, again increasing alliances and household output (Ray 1938, 50).

At the other end of the society were slaves, whose life, death, and labor were controlled by their owners. The status of slave was passed hereditarily although many slaves were not born into their position. Slaves were acquired through raiding, as war captives, and through trading (Hajda 2005). One could also enter into slavery through inability to pay debts or orphan children could be taken on as slaves (Ray 1938, 52). The day-to-day lives of slaves did not differ too much from the lives of the lower classes, although less desirable work was often required of slaves (Ray 1938, 51). They were part of the household, often sleeping alongside their owners; however, their fate was completely in the owner’s hands (Donald 1997, 72; Ray 1938, 53). A slave could be killed, traded away, or abandoned at the owner’s will. The

Chinook held considerable numbers of slaves; in fact Donald (1997) places the highest number of slaves on the Northwest Coast at the mouth of the Columbia River. Large numbers of slaves on the Lower Columbia historically may have been a response to population decimation through introduced disease (Hajda 2005, 579-580). Slave labor accounted for a large part of economic output capabilities (Ray 1938, 51). Slave ownership may have been a mark of status in and of itself or the significance of may have been due to increased household production capabilities through slave labor or it may have also been a combination of these two factors (Ames 2001, 2; Hajda 2005, 580).

There were many ways to communicate one's status. The size, location within a village, and additional features, such as carvings and furnishings, of a house communicated the status, wealth, and power of the household (Coupland 2006, 82). The importance of visual markers on the person was significant. Highborn individuals underwent the process of head flattening during infancy through the use of a pressure-applying cradleboard to make their social position readily identifiable (Boyd 2013, 193; Ross 1923, 107-108). Display of wealth through personal adornment with scarce and non-local goods was a salient feature of Chinookan culture:

Their ornaments consist of brass bracelets, which they wear indiscriminately on wrist or ankle; glass beads, preferably blue ones; and white shells called haiqua in the native language, which are a kind of coin of the Indian realm. These shells are found beyond the Strait of Juan de Fuca and are four inches long and about an inch in diameter. They are a little curved and naturally perforated; the longest ones are the most highly valued. The price of all Indian goods is reckoned in terms of these shells, and a six-foot string is ordinarily worth ten beaver skins (Franchère 1967, 111).

Additionally, hosting a feast and giveaway, a modified, less extravagant version of the potlatch ceremonies of more northern Northwest Coast groups, communicated the host's high status (Ray 1937, 368).

Trade and high status share a close relationship. Involvement in inter-community exchange networks to create a system of far-reaching trade alliances was the primary means by which to gain or maintain high social rank (Sobel 2006, 162, 165). In this way, exotic items could be acquired and displayed or redistributed through giveaways and feasts increasing one's social

capital (Gibbs 1874, 185; Silverstein 1990, 541). The desire among the Chinook to participate in trade, procure certain introduced trade goods, and increase their personal status may have helped propel the development of the fur trade with Euroamericans.

### **Pre-contact trade**

An ancient and highly developed trading network, sometimes referred to as the Columbia River trade network, linked the peoples residing along the Columbia's shores and beyond for millennia prior to the arrival of Euroamericans on the Northwest Coast (Hajda and Sobel 2013; Stern 1998). Trade was a major societal force; shaping many Chinookan cultural features and those of groups with which they interacted. Intra- and inter-community trade flowed both ways on the river and the coast, linking people and goods from all over the Pacific Northwest and beyond and playing a significant role in creation and perpetuation of social ranking (Sobel 2006, 159). Throughout the trade network, local specialty and surplus goods were exchanged through trade and redistribution. These may be food items, raw materials, finished goods, prestige items, and even people were exchanged as slaves (Cole and Darling 1990). Archaeological data provide evidence of wide-reaching pre-contact trade and interaction on the Northwest Coast (Hajda and Sobel 2013, 107-108). The established system for the procurement and redistribution of goods created a market primed for the development of Euroamerican fur trade.

Far-reaching trade ties encouraged local specialization in production (Sobel 2006; Stern 1998, 641). "Home products" could include items native to a local area or superior products produced in a certain location given the local conditions. For example, along the Columbia River near present-day The Dalles, Oregon, dried and pulverized salmon that stored well for winter use was produced and highly desired by other groups. The arid and windy conditions and the decreased fat content of migrating salmon by this point in the river were right for its production. Another example is dentalium (or haiqua) shells. Found only off Vancouver Island in British Columbia, these rare shells served as a currency along the Columbia River and as a prestige item for groups even farther afield. Near the mouth of the river, the Lower Chinook produced sea otter skins, whale blubber and oil, dried fish (salmon, smelt, euchalon, sturgeon) and dried shellfish (Ray 1938, 107). Clamons, an elk skin armor produced by the

Lower Chinook were much sought after by more northern Northwest Coast groups. Wapato was a specialty of wetland areas of the Lower Columbia Valley around present-day Portland, Oregon, and highly desired by the Lower Chinook (Darby 2005, 194, 208). These trade ties provided an established system for obtaining furs that would become important during the early fur trade period.

Specific to this thesis, the Lower Chinook at the mouth of the Columbia River played a key role in the pre-contact trade system. The mouth of the Columbia River served as a nexus for trade from north, south, and east. As the Columbia River was the major transport route for goods and people traveling between the coast and the interior by canoe, the Lower Chinook were well-positioned to facilitate, if not control, trade between coastal tribes and the interior tribes of the southern Plateau and western Oregon (Ray 1938, 100; Silverstein 1990, 535). The location of Middle Village was an optimal situation for monitoring and participating in trade along the river. The Lower Chinook also sent their own trading parties to procure goods from distant trade partners which they would then redistribute to other groups from their territories on the Columbia (Stern 1998, 642). Elaborating Ray's characterization (1938, 99), the mouth of the river was a warehouse of goods from all directions with Chinookan traders at the mouth of the river acting as middlemen and re-distributors. This is a role the Lower Chinook would continue to occupy as trade with Euroamericans developed.

The importance of trade is evident in many aspects of the traditional Chinookan cultural system. Many practices are shaped by or adapted to be beneficial to the conduct of trade. Trade served political and social functions within the ranked Chinookan society, serving as a means to form alliances and establish hegemony (Silverstein 1990, 536-541). Success in trade was of social value and the resulting wealth increased an individuals' social status. Participation in long-distance trade positively affected prestige in multiple ways: access to prestige goods, access to utilitarian goods to help boost production, and alliance-building and maintenance (Sobel 2006, 192). To communicate wealth, and thereby status, to others, individuals required luxury goods for display and redistribution through gifting (Silverstein 1990, 541). These cultural traits formed a positive environment for the development of the Euroamerican fur trade.

## **Chapter Summary**

This information is presented to set the cultural context into which Euroamerican traders and their goods were accepted as they arrived on the Lower Columbia. An understanding of traditional culture and values, from the day to day activities to the overarching beliefs that shaped their society, helps explain the responses and actions of the Lower Chinook during the early contact period. The existing cultural traits and practices that formed a framework for the Lower Chinook's integration into the Euroamerican fur trade have been highlighted in preparation of the rest of this thesis. Manifestations of these cultural traits feature prominently in the development of the fur trade and the actions of the Lower Chinook in that period. How these can be discerned from the archaeological record will be presented in the discussion section of this thesis. The next chapter will examine the early contact period from the Euroamerican perspective.

### **CHAPTER 3: HISTORIC CONTEXT**

This section will provide the historic context for the development of the maritime fur trade on the Northwest Coast of North America, the conduct of the trade during the early period (ca. 1790-1820), and its evolution to a land-based trade. Information in this section includes description of the types of goods exchanged between Euroamerican and Chinook traders to help identify such goods in the archaeological record. How the Lower Chinook fit into these developments and the effects of their participation in this global trading sphere will also be discussed.

#### **Early Euroamerican Activity on the Northwest Coast**

The initial period of European contact with Pacific Northwest indigenous groups began with exploratory expeditions of the Pacific coast of North America sponsored by European governments in the 1500s. The search for the Northwest Passage, an imagined water route between the northern Pacific and Atlantic Oceans, brought more and more ships into the waters off the Pacific Northwest Coast including the Russians, British, Spanish, and Americans (Cole and Darling 1990, 119). The Spanish, venturing north from their Mexican colonies, conducted exploratory voyages in the sixteenth century although little is known about these (Cook 1973). Spanish galleons crossed the Pacific, linking their Mexican and the Philippine colonies and supplying fine Asian goods to colonial Mexico and beyond. Although making contact and establishing trade was not the focus of these voyages, interaction did occur, largely through shipwrecks or brief encounters. Oral history recorded by Franz Boas and others describes the first ship and white men seen by the people of the region, wrecked on a beach on the northern-most Oregon coast (Beckham 2006, 9-11). Archaeological evidence and Native oral history indicate at least one Spanish galleon was blown off course and wrecked off the northern Oregon coast, likely in the late 1600s (Lalley 2009).

A series of Russian exploratory voyages that launched from the country's east coast touched upon the Northwest Coast in between the 1720s and 1730s. The Russians discovered the potential of trade in Northwest Coast furs with China in the 1740s. Permanent trading settlements were established in the last quarter of the eighteenth century around Cook's Inlet and Prince William Sound in what is now southern Alaska (Pethick 1976, 25-33).

It was the quest for the Northwest Passage that brought British Captain James Cook and his expedition to the Northwest Coast of North America in the spring of 1778. While anchored in Nootka Sound, the crew undertook to trade with the Natives (Ibid., 64). The subsequent discovery by members of his crew, not of the Passage but of the high demand and price paid for skins and pelts obtained in abundance from the Natives of the Northwest Coast in China, would change the face of Euroamerican interest in the region and initiate the maritime fur trade on the Northwest Coast (Chittenden 1954, 95; Cook and King 1793, 3:369-370; Gibson 1992, 22; Layton 1997, 27; Pethick 1976, 74).

One such merchant venture drawn to the commercial prospects on the coast was commanded by Captain Robert Gray out of Boston and resulted in the “discovery” of the Columbia River on May 11, 1792 (Nokes 1991). Aboard the *Columbia Rediviva*, Gray’s crew made the first recorded entry into the river and named it for the ship. They stayed just over a week, trading, replenishing food and water, and exploring and charting the area. John Boit, a shipmate, recounts (1920, 397) their first encounter with the Chinook soon after entering the Columbia:

The beach was lin’d [*sic*] with Natives, who ran along shore following the Ship. Soon after above 20 Canoes came off, and brought a good lot of Furs and Salmon, which last they sold for a board Nail. The furs we likewise bought cheap, for Copper and Cloth. They appear’d [*sic*] to view the Ship with the greatest astonishment and no doubt we was the first civilized people that they ever saw...at length we arriv’d [*sic*] opposite a large village, situate on the North side of the river about 5 leagues from the entrance ... We purchas’d [*sic*] 4 otter skins for a sheet of Copper, Beaver Skins, 2 Spikes each, and other land furs 1 Spike each.

This indicates the Chinooks’ readiness to trade and their desire for metal. Despite the impressions of the *Columbia’s* crew, it is more than feasible that other traders had previously entered the river and even more likely that some Chinook had experience trading with coastal traders. British traders had been active on the coast since 1785, but not much is known of their activities since little has been published. Being alerted of Gray’s discovery, Captain George Vancouver of the British Royal Navy who had been in the vicinity of Vancouver Island, made the second recorded entry into the Columbia in the fall of 1792, where he encountered the British merchant schooner *Jenny* trading in the river (Howay and Elliott 1929).



The Corps of Discovery under the command of captains Meriwether Lewis and William Clark was sent west by President Thomas Jefferson to explore lands west of the Mississippi newly acquired by the United States in the Louisiana Purchase. Among other aims, the expedition was sent to legitimize U.S. claims to the land and investigate commercial potentials on these new territories (Chittenden 1954, 81). This effort brought the expedition to the mouth of the Columbia River where they established their winter quarters, Fort Clatsop, near present-day Astoria, Oregon, at the western terminus of the cross-continental journey in 1805. Lewis and Clark also supplied trade goods including beads to the Native peoples along the Columbia and the expedition they have a documented association with the vicinity of Middle Village. On their return, the captains declared the potential for a land-based fur trade based on the gathering of land animal furs, principally beaver, from the interior of the continent and transporting them to trading house on the Columbia River for shipment (Dolin 2010, 176; Ronda 1990, 30-31).

In 1811, American John Jacob Astor chose the mouth of the Columbia to establish his Pacific Fur Company's west coast settlement, Fort Astoria, as part of his planned fur trade empire stretching from the Rockies to the Pacific (Ross 1923; Stark 2014). Although without the official backing of the United States' government, Unfortunately for Astor, his plans did not come to fruition and by 1813, the British North West Company had assumed control of the fort and renamed it Fort George. The post passed to the HBC in 1821 after the HBC assumed control of the NWC. Fort Astoria/George was the first Euroamerican post established in the Lower Columbia Region and served as a center of the fur trade economy until Fort Vancouver was established upriver by the Hudson's Bay Company in 1825. The importance of Fort Astoria/George reduced up to its eventual abandonment in the 1840s.

### **The China Trade and the Golden Round**

While goods from the East had long reached Europe over the ancient Silk Road route, the Portuguese became the first European nation to establish maritime trade ties with China in the 1500s. After reaching an agreement with the Chinese government, the Portuguese established a trading base on the island of Macao, off the southeast coast of China, in 1557 (Howard 1984, 22; Rossabi 2014, 277; Schiffer et al. 1975, 7). Beginning in the late sixteenth century,

other European maritime powers followed Portugal's lead: initially the Spanish and Dutch, and later Sweden, France, Austria, and England. The British successfully established themselves in the China trade in the 1700s. Chinese goods came to America via its colonial powers: first, the Netherlands, and later, Britain, until independence in the late eighteenth century. Following the Revolutionary War, America's entrance into the China trade was sponsored by entrepreneurial private firms and individual investors on vessels mainly out of the port of Boston (Ibid., 35-39). The first recorded American trading vessel to arrive at Canton, China, was the *Empress of China*, in August of 1784 (Nelson 1985; Schiffer 1975, 11; Tung 1974). For the post-revolution United States, the China trade provided much needed avenues for economic development when former colonial markets were no longer accessible (Nelson 1985, 11). Chinese goods fulfilled Western demand for luxury items and more basic material needs that could not be met domestically. A growing demand for exotic Chinese goods such as spices, tea, silks and other textiles, and porcelains among Western consumers into the nineteenth century and the resulting profit potential for traders drew many into the China trade (Rossabi 2014, 277). Introduced to Britain in the mid-seventeenth century, tea would become a particularly favored product among the British and their colonists in America and the most profitable Chinese commodity on the Western market (Gibson 1992, 92-94 and 98-100).

Gaining access to the Chinese market was not a simple task, and traders faced a complicated and unfamiliar system of trade restrictions and cultural norms far different from those to which they were accustomed (Schiffer et al. 1975, 8). Chinese cultural ideals played a large role in shaping the trading scene encountered by Euroamerican maritime traders seeking to enter the Chinese market. Traders were required to submit to the Imperial Chinese *tribute system* in which they must seek Imperial permission to establish trade and make tribute payments to the emperor (Gibson 1992, 85-86; Pingchao Zhu 2011 pers. comm.; Rossabi 2014, 43). From the mid-eighteenth century to the mid-nineteenth century, Euroamerican trade with China was conducted within a bevy of regulations set by the imperial government; these regulations were known as the *Canton System* (Gibson 1992, 86-91). Under this system, the Chinese imperial government controlled all aspects trade, from production through distribution. Trade was restricted to one port, Canton, or modern-day Guangzhou, and to the

defined trading season of October through January (Schiffer et al. 1975, 12). All trade must be conducted through one of thirteen government appointed firms, or *Cohongs* (Howard 1984, 37; Nelson 1984, 13; Rossabi 2014, 291). Even given these restrictions, the profit advantages of the tribute-trade, as it came to be called, served as a powerful economic inducement to submit to the system.

As mentioned previously, finding goods suitable to trade to the Chinese was a persistent problem for Euroamerican traders (Layton 1997, 27). China was nearly self-sufficient, drawing on resources spread over the vast nation. The overwhelming majority of the Chinese population was of the peasant class leading a hand-to-mouth existence and not consumers of imported luxury goods (Rossabi 2014, 285). The Chinese, therefore, saw little motivation to trade with Euroamerican merchants. A few commodities did exist for which there was demand in China.

Silver made an excellent commodity for trade with China. It was used as the general currency, but China lacked a domestic source. Silver was also not readily available to most other nations, and had to be obtained through triangular trade with Spain who had multiple sources within its empire (Gibson 1992, 247; Gumport and Smith 1999, 6). Obtaining silver added an additional layer of cost and difficulty to the China trade. Some traders turned to opium as a commodity to finance the China trade. A 1799 Imperial edict outlawed opium in China but a black market existed (Layton 1997, 28). The British virtually monopolized the opium trade as their colony of India produced the highest quality opium. Ginseng root, native to North America and used in traditional Chinese remedies, initially looked to be a commodity that could help finance American trade with China, but did not prove profitable enough alone to balance the trade deficit (Gibson 1992, 38; Layton 1997, 27). The search for a new commodity continued.

The 1787 publication of the narrative of the 1776-1780 British Navy expedition in the Pacific Ocean under Captain James Cook heralded the discovery of "a valuable an article of commerce" that would help fund the China trade (Cook and King 1793 (3), 296). Upon reaching Canton, the crew discovered the premium price paid by the Chinese for skins, especially sea otter. As reported by Captain James King:

...one of our seamen sold his stock alone for eight hundred dollares [*sic*]; and a few prime skins, which were clean and had been well preserved, were sold for one hundred and twenty each. The whole amount of the value, in specie and goods, that was got for the furs in both ships, I am confident did not fall short of two thousand pounds sterling (Ibid., 370).

It was not until several years after the completion of this voyage that these accounts were published and the potential of trade in furs from the Northwest Coast with China became widely known. This discovery was seen as a solution to a persistent problem in Western trade with China: China produced many goods that were in high demand in the Western world. The first commercial venture, the British ship *Sea Otter*, arrived at Nootka in the summer of 1785 and made a large profit in Canton. With the success of this venture a wave of mainly British and American merchant ships arrived on the Northwest Coast, heralding the beginning of the region's maritime fur trade and establishing the region as principal link in the China trade (Dolin 2010, 138; Gibson 1992, 22).

Maritime traders generally followed an established pattern. After leaving their homeport traders arrived on the Northwest Coast in the spring. Their cargo would consist of merchandise to trade to the Natives for skins, pelts, and, after long periods at sea, much needed food items. After cruising the coast all summer, trade ships wintered in the Sandwich Islands (Hawaii), returning to the Northwest Coast the following spring. After another season's trade, vessels sailed for China to off-load their accumulated furs and pelts and return home with a cargo of Chinese exports for Western consumers, mainly tea, silks, porcelains, and spices (Ibid., 55). Three-mast clipper ships carrying crews of approximately 20 were popularly used in the trade due to their speed and maneuverability.

The Americans soon came to dominate the trade, with American vessels outnumbering those from all other nations combined by many times (Dolin 2010, 155). By 1801, as many as 22 American vessels were actively trading on the Northwest Coast as compared to three British and one Russian vessel (Gibson 1992, 301; Morison 1961, 52). In the following years and up to 1820, no more than three British vessels were recorded on the coast in a single season, while the lowest count for the Americans was four (Gibson 1992, 302). The Americans earned a reputation as skilled sailors and also businessmen: qualities well-suited for the maritime fur trade (Dolin 2010, 155). The restrictions of the Royal charter system held British

traders at a disadvantage to the unregulated independent American traders. American captains were also investors in the trade venture and had a personal interest in their success (Ibid.).

The emergence of the maritime fur trade on the Northwest Coast of North America was a well-timed development for the newly independent United States of America. As a result of the American Revolution, many former trading partners, for both the import and export of goods, were off-limits (Gibson 1992, 37). British colonial powers had put limits on the American manufacturing sector in order to suppress competition against producers in Britain or other colonies. As a result, post-independence American industries had to develop, in some cases from the ground up, to meet domestic needs for goods. In the meantime, other suppliers had to be found. For entrepreneurial American traders now free from restrictive colonial trade policies, the trade with China provided vast opportunity for economic development and filling material needs at home.

### **The Early Fur Trade Period on the Columbia River**

The Euroamerican traders arriving on the Columbia River from the late 1700s encountered an ancient, organized, and the far-reaching intertribal trade network within which the mouth of the Columbia River played an important role. Signs of this established trade among Natives were evident to initial Euroamerican visitors on the Columbia River. Metal objects, such as copper swords and brass ornaments, were noted, and were likely acquired through indirect trade with peoples already in contact with Euroamericans or from shipwrecks on the Pacific Coast. The arrival of Euroamerican traders on the Northwest Coast signaled a new phase of development of the existing intertribal trade network and indigenous culture.

The large part of available information relating to the early fur trade period on the Columbia River pertains to the Lower Chinook at the mouth of the river. This is due to the fact that most maritime traders did not travel far upriver and direct interaction between Euroamerican traders and upriver Natives was largely restricted. The arrival of Euroamerican groups traveling overland from the eastern parts of the continent and the construction of terrestrial fur trade forts along the Columbia River system initiated more direct and sustained interaction between Euroamericans and Columbia River Natives.

Captain Charles Bishop provides a first-hand account of the conduct of trade during the early fur trade period at the mouth of the Columbia. Bishop's ship the *Ruby* anchored in the Columbia on May 22, 1794 (Roe 1966). He describes much trade taking place from the ship with Native traders canoeing out, sometimes in great numbers: more than 200 in one instance and either being invited to board or trading over the side of the ship. Over a two week stay, they traded for over 100 "good" sea otter skins and other skins including: beaver, fox, martin, and river otter (Ibid., 56, 128). Another article became an important trade commodity on the Columbia River. Capt. Charles Bishop referred to them as "Leather War Dresses" and described them as follows:

... these dresses are made from the Hide of the Moose Deer which are very large and thick. This is dressed into a kind of White leather, and doubled, & is when Properly made up, a compleat defence [*sic*] against a Spear or an Arrow and Sufficient almost to resist a Pistol Ball (Ibid., 128).

What Bishop describes were also known as *clamons* or *clemals* and were in fact dried elk hides, doubled over to form a cape that covered the body from the neck to the heels with an opening for an arm. Clamons were in demand by Northwest Coast groups to the north who utilized them as armor (Ross 1923, 104). Euroamerican traders procured clamons at the mouth of the Columbia and then took them north to trade on to the Natives there for most premium sea otter pelts. This process accounted for a large part of the trade on the Columbia and was part of larger efforts on the part of the Euroamerican traders to find trade items desirable to the Natives. Euroamericans conducted a triangular trade, acquiring traditional products from one Native group and transporting and then trading these on to another Native group for products wanted by the Euroamericans (Table 1). It illustrates that in addition to new Euroamerican products, desire for traditional products continued in the early trade period; Euroamerican goods did not entirely supplant traditional ones.

The goods desired by the indigenous peoples of the Northwest Coast changed from year to year and place to place, as did the rate of exchange. Outfitting a trading vessel with trade goods was a guessing game to some degree. There was no certainty that a competitor had not flooded the market with a certain good, or the fashion had not changed since the previous season. If the ships did not have the objects desired by Natives at that time, the success of

their venture was at stake. In such cases, flexibility and ingenuity on the part of the Euroamerican traders became necessary. A trading vessel's blacksmith was often busy crafting metal objects to the specifications of Natives, including jewelry formed from iron rods and iron swords. Traders were known to trade equipment and riggings from the ship and their personal belongings if necessary to make a deal (Gibson 1992, 29-31).

A strong and consistent desire for metal goods such as knives, kettles and pots, sheets of copper or brass, wire, and fishing hooks, existed as there was no traditional Native metal technology (Moulton 1990, 6:187; Nokes 1991) (Table 1).

Table 1. From Captain Charles Bishop's 1794-1799 logbook: *An account of Goods expended in purchasing and Procuring 192 Leather War Dresses, intended to be traded away again to the Northward and reckoned, equal to Purchase 677 Prime Sea Otter Skins of 1st Quality* (Roe 1966). All spellings are original.

10 lbs powder	4 musketts	314 copper Rods
73 Tea Kettles	24 Sheets Sheathing Copper	8 Quart Copper cupps
16 lbs sheet Copper	6 Cooper Lipped Sauce Pans	1 Pewtor Screw Jugg
8 Silver Silt swords	4 Common D (nails)	62 Bars Iron
0 Cwt.3.0 Muskett Ball@ 28 per Cwt	8 Blanketts	8 Pair Copper Buckells
30 Dozen Buttons	7 files	3 tin Powder Flasks
4 yards Cloth	6 yards Baiz	2 Brass Guinea Kettles

Guns and the accompanying powder, balls and shot, tobacco, cloth, blankets, and clothing were also desired (Moulton 1990, 6:187). Euroamerican traders noted the popularity of "trinkets" - beads, buttons and some other small articles used for personal adornment (Jackman 1978, 16; Ross [1904] 1986, 107). The preference for blue glass trade beads was remarkably strong. William Clark related an encounter that illustrates the high priority placed on blue beads:

... nearly [*sic*] to try the Indian who had one of those Skins, I offered him my Watch, handkerchief a bun of read beads and a dollar of American Coin, all of which he refused and demanded "*ti-â, co-mo-shack*" which is *Chief beads* and the most common blue beads (Clark in Moulton 1990, 6:81)

The practical uses of many trade items are evident, but items for personal adornment played an important cultural role. Many introduced objects were adopted as prestige goods. In a culture where wealth accumulation and the display of one's wealth were important features, the fur trade provided novel means for the expression traditional cultural values. Introduced trade good were often repurposed and redefined by Native Americans to apply to their cultural context (Burley 1989; Cabak and Loring 2000; Lightfoot 1995, 206). This illustrates how in the early fur trade period Euroamericans and their goods were integrated into the pre-existing Native system, rather than upsetting it (Silverstein 1990, 535).

The existence highly-developed pre-contact trade on the Northwest Coast was apparent to initial Euroamerican traders through the sophistication displayed by Chinookan traders. The following description by Captain Bishop of his experience trading on the Columbia illustrates the Lower Chinook's approach to trade and the Euroamerican reaction (Roe 1966, 57-58):

We expected of course from the information we hitherto had of these People that with the choice goods what compose our cargo, we should have been Able to Procure them in way of Barter readily and with ease, but our disappointment might be better conceived than Expressed, when after bartering and shewing them a great variety of articles for the whole day, we did not purchase a Single Fur. Tea Kettles, sheet Copper, and a variety of fine Clths [*sic*] and in Short the most valuable Articles of our Cargo where shewn without producing the desired Effect, and in the Evening the whole of them took to their Cannoes [*sic*] and paddled to Shore, Leaving us not more disappointed than surprised... This Morning the natives came off in greater numbers than yesterday, They had now seen most of the Articles of our Cargo, and began to set their own Price on the Skins: which as may be soppoed [*sic*] from their behavior yesterday, was not moderate. We were Plegued [*sic*] the whole day to break trade on their own terms, but knowing our Stay here would be at least ten days, we suffered them once more to depart with their skins... This day we broke trade with the Natives and tho' [*sic*] not bought so cheap as they have been at this place, was more reasonable that we had Expected to have procured them, and having once began we coninnued [*sic*] to procure many good Furs daily till Thursday 4th June when the natives very frankly told us they had no more.

Through millennia of inter-tribal trading, the Chinook had honed their bartering and bargaining skills, leading many Euroamerican traders to remark on the skill and guile of Chinookan traders (Moulton 1990, 6:165; Ross 1986, 99). Due to the value placed on trading in traditional Chinookan culture, many seized the new opportunities provided through trade with the Euroamerican newcomers.



## **Terrestrial Fur Trade on the Lower Columbia**

The beginning of the terrestrial fur trade period would mark a transition in the conduct of the fur trade and the historical trajectory of Euroamerican activity on the Columbia River.

Competition between American and Britain interests drove an interest in permanent settlement and claims to the land that changed the relationship between the Native inhabitants and the traders-cum-settlers. The evolution of the fur trade away from the coast and towards monopolistic fur companies affected how and where the trade was carried out. These companies also brought more people and goods to the Columbia. This thesis attempts to illuminate these changes through examination of the archaeological record. The following section will describe the progression of the terrestrial fur trade on the Columbia River.

### **Fort Astoria**

The advent of the land-based fur trade on the Columbia River was the vision of one man with a personal fortune large enough to make it reality. The German-born John Jacob Astor immigrated to New York in 1783 after a short time in London. Barely in his twenties, Astor possessed business acumen ripe for the post-Revolution American capitalist marketplace. Having learned of the potential profits of selling furs in New York and London, Astor plotted his course into the fur trade soon after his arrival in New York. After taking a job with a fur merchant to learn the trade, he became a small-scale fur merchant himself (Dolin 2010, 189-193; Stark 2014, 11).

By 1788, as his fur business expanded, Astor was making buying trips to Montreal and becoming acquainted with officials of and operations of the Canadian-based fur trade company, the North West Company (Ronda 1990, 24-25). The French were the pioneers of the American fur trade, expanding their territorial holdings as they erected fur-trading posts into the continental interior. This expansion in part led to the French and Indian War between France and Britain in the mid-seventeenth century (Chittenden 1954, 87). At the conclusion of the war, Britain assumed much of the fur trade activity in former French territories. The Hudson's Bay Company was established under a Royal Charter in 1670, granting them almost complete sovereignty and monopoly to the fur trade for over 100 years. The NWC was formed by a group of Montreal merchants in 1783-84 began to challenge HBC activities in the

west by 1787 (Ibid., 89). While the management of these firms was largely British, lower-level positions were more commonly occupied by French Canadians and Metis. There were no large American fur companies and no definite territorial boundaries between the U.S. and Canada, allowing, as argued by Astor, unopposed Canadian fur traders to freely obtain and profit from fur resources that Americans could potentially exploit.

Astor began to formulate a business plan to bring an American interest into the lucrative trade and end the monopoly of the British firms. Inspiration for his proposed venture came from many sources. The accounts of the explorations and trade endeavors of Peter Pond, Captain James Cook, Alexander Henry, and Captain William Clark, and likely his associations with Montreal traders, all lent to Astor's plans (Ross 1986, 26-34). The plan involved establishing a series of posts from the Missouri to the Pacific to collect furs and pelts and transport them to the Pacific Ocean. There, they could be shipped directly to China aboard his own ships (Ibid., 5-7). Pelts and furs would be acquired through trade with Natives and by hunters and trappers employed by Astor (Chittenden 1954, 3). In addition, Astor's ships would trade up and down the coast and supply Russian settlements in the far north. Astor already owned several ships active in the China tea trade based from the east coast (Ibid., 4; Stark 2014, 15). Supplies were to arrive at the Columbia aboard an annual ship from New York which would then transport the accumulated furs and pelts to China, sell them, and return home with goods for the home market purchased with the proceeds of the sale of the furs and pelts (Chittenden 1954, 168). Astor's ambition was to create a trade monopoly stretching across North America (Ronda 1990, 39-40). By establishing a settlement on the West coast, the territory would be claimed for the United States and British firms excluded from the trade west of the Rockies.

Many uncertainties existed about the feasibility of the venture: the extreme distance from other American settlements and supply sources, the untested model and scale of the enterprise, potential hostilities with Natives and Britain, and perhaps unimagined possibilities in a largely unknown land. In the period prior to the launch of the Astoria venture, tensions were building between the United States and Britain. Astor corresponded with President Jefferson and later President Madison, seeking official sanctioning of the venture (Ross 1986, 25-26). In his reckoning, federal government backing and potentially even military support

was needed to legitimize the settlement and for defense if challenged by the British or other competitors. He described the venture as a merging commercial and political interests; it would establish the Americans and end the British monopoly in the western fur trade and claim to the West coast for the United States, paving the way for future commercial and settlement interests in the West (Dolin 2010, 195; Ronda 1990, 40). In the end, Jefferson offered enthusiasm for Astor's private venture but did not offer government support.

In 1808, Astor established the American Fur Company under a New York state charter as an umbrella organization for all his fur trade interests (Ibid., 42). Understanding individuals with experience operating in the wilderness and in trading with Native Americans were keys to his success, Astor used his connections in Montreal to build his enterprise. He had hoped to enter into a partnership with the North West Company, tapping into their experience and infrastructure, but his many attempts were rejected (Ibid., 62). Astor was, however, able to recruit some key former NWC partners to the Pacific Fur Company, the name given to his operations in the west. Alexander McKay, Donald Mackenzie, and Duncan McDougall David Stuart and his nephew Robert were brought on as shareholding partners and to run daily trade operations (Ibid., 58-59). To legitimize the territorial claim, Astor realized American leadership was key to the enterprise. A novice to the fur trade but an experienced St. Louis businessman Wilson Price Hunt was chosen to as the venture's chief field agent (Ross 1923, 12, 25). The partnership was formalized in New York in 1810 (Chittenden 1954, 169; Ross 1923, 10). Additional American partners were later added: John Clarke, Ramsay Crooks, Joseph Miller, and Robert McClellan.

A first contingent would arrive on the Columbia via ship with trade supplies and materials for establishment of the settlement: the first American colony on the West Coast. A second contingent would depart overland and rendezvous with the first at the mouth of the Columbia (Ibid., 169). After establishing the post at Astoria, smaller parties were to be sent out to set up smaller posts inland along the Columbia and its tributaries.

Astor chose a ship designed for China trade and speed: the *Tonquin* (Ronda 1990, 94). To command the vessel, Astor selected Jonathan Thorn, a Navy lieutenant. This would be Thorn's first civilian command (Stark 2014, 14-15). When the *Tonquin* set sail from New

York harbor in September of 1810, 21 crew and twelve passengers were aboard. Among the passengers were partners Duncan McDougall, Alexander McKay, David Stuart, and Robert Stuart. There were also eight Canadian clerks, and the most notable were Alexander Ross and Gabriele Franchère who kept journals covering the voyage and their time on the *Columbia* (Franchère 1963; Ross 1923). Craftspeople necessary for settlement construction were aboard as well. The cargo included supplies to establish a sustainable settlement, including seed and livestock, and trade goods so trading could begin as soon as possible upon arrival.

After a tumultuous voyage marked by many altercations between the militaristic Captain Thorn and the unrestrained fur traders, the *Tonquin* arrived off the mouth of the *Columbia* in March 1811 in stormy seas. Multiple perilous attempts to locate the river channel claimed eight lives before the *Tonquin* was able to enter the river (Ibid., 59-75). Efforts were then focused on locating a site suitable for their settlement that was to include a trading post, wharves, warehouses, living quarters, animal pens, and gardens. The site had to provide accessibility for ships and occupy a protective position. Partners McDougall and David Stuart found a suitable site on the south shore and 11 miles up the estuary. Their scouting party took refuge from bad weather several days among the Chinook at Concomly's village, and established a relationship that would become very important for both parties (Stark 2014, 188).

When work began to clear the densely forested settlement site, it took nearly a month to clear a single acre (Ross 1923, 76-79). The first building erected was the warehouse to store goods so the *Tonquin* could be unloaded and set out to trade up the coast, according to Astor's plans. The *Tonquin* was able to depart for a few weeks of trading up the coast on June 1, 1811. Although Astor's instructions were explicit in directing self-control and respectful dealings with Native peoples, an altercation between Captain Thorn and a Clayoquot chief ended in the destruction of the ship, the crew, and possibly several hundred Native villagers (Stark 2014, 214-215). The loss would also put in peril the remaining Astorians, who would not know of the *Tonquin's* fate for several months, and the venture as a whole.

With the *Tonquin* gone and the overland party yet to arrive, those at Fort Astoria carried on with Astor's plans: construction of the settlement continued and the Astorians began trading

with the local Chinookan peoples. Initially, much trade was for food items rather than furs and pelts (Jones 1999, 21). The early Astorians were largely reliant on the Natives for their food supply with their limited supplies and lack of skilled hunters (Ibid., 21-22; Ronda 1990, 204). Food-related ailments such as scurvy were common. Without Hunt present, McDougall was chief factor at Astoria and was responsible for decision-making (Ibid., 210). In the spring and summer, small reconnaissance parties headed out to the north and east to identify productive areas where satellite posts should be established.

Although not intended as such, Fort Astoria's prominent place on the Columbia River made it a destination for many Native peoples of the Lower Columbia and beyond to trade and interact with the Astorians. Given the intertribal Native trade and maritime fur trade activities near the mouth of the Columbia location, canoes of Natives increasingly came to the fort to trade (Ibid., 219). The Astorians were keenly aware of their vulnerability without a ship, limited numbers, and in isolation. Despite friendly interactions with the local Chinookan groups, the Astorians constantly on their guard especially when more distant, and rumored hostile tribes, were present (Ross 1923, 77, 90).

The Astorians' isolation was not as complete as it first appeared, however. Natives brought word of another group of whites building a post upriver. Certain upriver Natives aroused suspicion as spies sent by the North West Company (NWC) (Jones 1999, 25). The NWC did not wait long to announce their presence on the Columbia, thereby asserting their interests in the region. In July 1811, a canoe of Northwest Company men led by David Thompson came down the Columbia to Fort Astoria (Ronda 1990, 232). Their former NWC colleagues, now in Astor's employ, greeted them with the hospitality that could be allowed.

The overland Astorian contingent, composed of about 60 people, headed out for the Columbia in October 1810 with the intent of following the route the Corps of Discovery had followed to the Pacific six years prior. The leaders of the overland party, Wilson Price Hunt and Donald Mackenzie, had spent the spring of 1810 recruiting personnel and outfitting the expedition (Ibid., 50-51). The party included French Canadian voyageurs, American hunters, an Indian interpreter, the Indian interpreter's wife and their two small children, clerk John Reed, and

five-share holding partners: Hunt, Mackenzie, Crooks, Miller and McClellan. They carried approximately 20 tons of goods (Stark 2014, 108).

After hearing rumors of Blackfoot hostility, the party diverged from the planned route (Ibid., 112). This decision subjected the party to the harsh conditions and near starvation as they crossed the barren desert plains above what is now known as the Snake River Canyon. Finally emerging from the desert at the end of November, they were faced with crossing mountains already covered with snow and no relief from their state of starvation in sight. In the mountains the two groups reconnected (Ronda 1990, 185-191). With much help from Native Americans along the way, the overland party found their way to the Columbia River. After recovering some strength, small groups began the journey down the river and began straggling into Fort Astoria between January and February 1812. Five were lost in the journey.

A year after work begun, the initial construction of Fort Astoria was near completion (Figure 4). At last, Astor's ship the *Beaver* arrived in the Columbia in May 1812 with more men, trade goods, arms, animals, liquor, and instructions from Astor (Stark 2014, 237). Astor's far western venture appeared to be going to plan. In the summer of 1812, parties set out to establish posts along the Columbia's interior tributaries and on trapping trips. Astorians had visited and established friendly trading relations with upriver. Furs and pelts were amassing. Wilson Price Hunt left Astoria aboard the *Beaver* for coastal trading and to supply the northern Russian posts (Ross 1923, 257). Their fortunes changed dramatically when news arrived at Mackenzie's post on the Snake River via John McTavish of the NWC that war had been declared between the United States and Britain (Ronda 1990, 264). According to McTavish, the company's gun ship the *Isaac Todd* and an armed Royal Navy escort were underway to Columbia to take Astoria.

McTavish and a flotilla of NWC men arrived at Astoria in October with a letter announcing Britain's intention of seizing the fort and also an ultimatum: sell out now or the British will take it (Ibid., 287). As Astor's chosen leader Hunt was absent, McDougall was called upon to decide the fate of the Astorian enterprise. In light of the uncertainty of their situation, the

looming arrival of a British Navy, limited supplies, and absent leadership, McDougall made the decision to abandon Astoria in the summer of 1813 (Ibid., 265). McTavish and McDougall

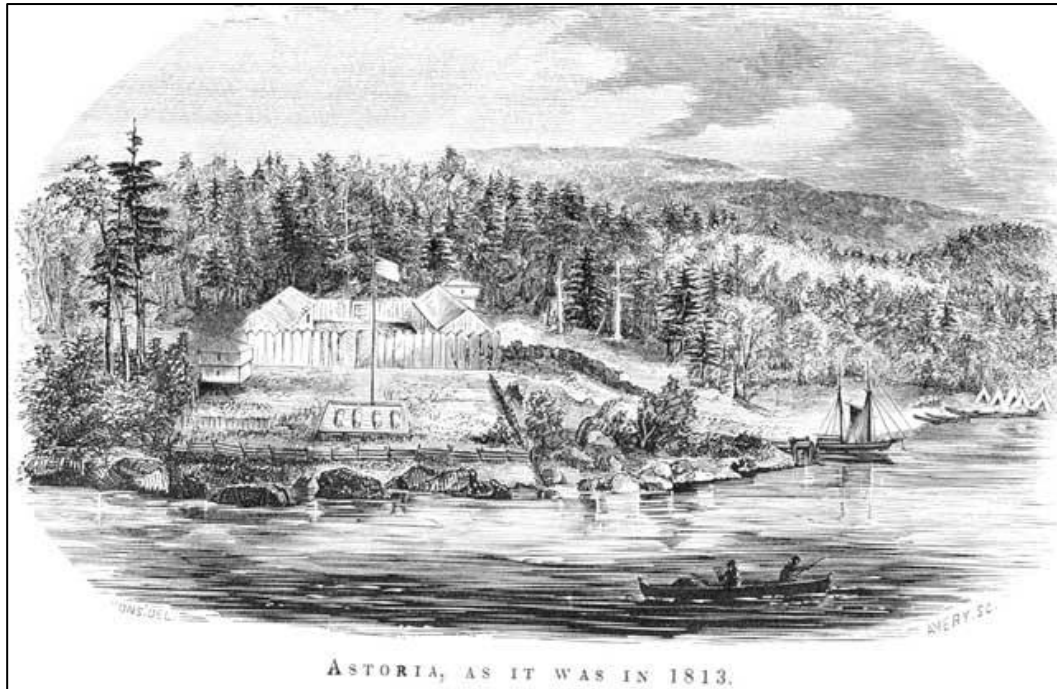


Figure 4. Fort Astoria as depicted by Gabriel Franchère, ca. 1813. Image source: Wikimedia Commons.

struck a deal to transfer Fort Astoria, the other Columbia posts, and the stock of trade goods at a much-undervalued price (Ibid., 278-280). Hunt was in Hawaii when he received word of the war. Hunt returned from his Hawaiian detour in August 1813. A negotiated bill of sale was signed on October 16, 1813. The British sloop of war the *Raccoon* arrived at the end of November in the Columbia. A formal ceremony marking the handover occurred on December 12, 1813, and Fort Astoria became Fort George in honor of the British monarch, George III (Ibid., 293-295; Ross 1923, 278). Among the Astorians, preparations began almost immediately to return to the east. One group departed by sea and another overland in April (Ronda 1990, 286). Of about 140 men sent by Astor to the mouth of the Columbia at least 61, or over 41 percent, died (Stark 2014, 288). Astor never renewed his interest in the far-western fur trade.

## **The Canadian Fur Companies and the Fort George Period**

The origins of the North American commercial fur trade began in French Canada in the 1500s. The Hudson's Bay Company was established by an Act of British Parliament in 1670 and given the Royal charter granting a monopoly on trading rights to all of Northwestern North America (Davidson 1918, 3). The HBC approach was to set up trading posts along major rivers and lakes allowing the Natives to come to them to trade. Their infrastructure spread west, reaching to Rocky Mountains by the mid-1700s. Independent traders had begun to vie for the market of the HBC somewhat by this point although it was difficult for traders acting alone to compete given the company's resources and government backing. In this climate in 1783, the North West Company formed of a partnership between independent traders and Montreal merchants who pooled their resources, including trade goods, and established profit sharing (Ibid. 1918, 9-11 This competition spurred westward expansion of fur trade activities in search of new lands to exploit (Prager 1980, 28-29).

The NWC was the first fur company with a presence in the Columbia River region. In 1807, David Thompson and a small group of NWC employees began exploring the region (Coues 1965). Fort Spokane was founded by the NWC in 1810 in northeast Washington state. Company records from the NWC operations on the Columbia during the period from 1812-1821 are lacking. Journals and memoirs of NWC employees provide some information of the company's operations on the Columbia (Coues 1965; Thompson 1971). The PFC founded Fort Okanogan in 1813 at the confluence of the Okanogan and Columbia Rivers in northeastern Washington. The NWC operated all three posts following the 1813 resolution with the PFC until 1821.

After the HBC took over the NWC in 1821, these posts passed to the HBC. Responding market and resource shifts that will be elaborated on below, the HBC reorganized their operations in the Columbia Department, the company's term for the Oregon territory. Most notably, they established of Fort Vancouver as their headquarters in 1826. Many of the operations at the other posts shifted there and Fort Vancouver eclipsed Fort George as the HBC's center of operations in the Columbia Department. Fort George served as a depot and warehouse for ocean-going cargo coming to and leaving Fort Vancouver, resulting in a close



functional and material relationship between the two posts that continued until Fort George was abandoned entirely in 1849 (Deur 2016, 86). In 1846, the boundary between American and British North American territories was set at the 49<sup>th</sup> parallel. Lands south of that line, including Astoria, became part of the United States, and those to north became British. Following this decision, the HBC began their withdrawal from Fort George.

### **Goods Imported by Early Terrestrial Traders on the Columbia River**

Terrestrial fur trade posts served multiple functions. They were long-term homes for traders, sometimes their families, and occasionally travelers unassociated with the fur trade. They were also places of business that attracted Natives occasionally from great distances. The type of goods recovered archaeologically can be expected to reflect these diverse contexts and may include goods related to trade with Natives, general household functions, and the personal effects of the occupants. The goods can also reflect the ethnic makeup of the post and be indication of with whom the occupants interacted. The remoteness of these posts made large called for large amounts of supplies to be on hand. The material signature of a post's operator can be revealed when archaeologically recovered goods are compared to documentation of goods imported by a certain fur company. Documentation of the trade goods used by the three fur companies who operated Fort Astoria/George; the PFC, NWC, and HBC, are presented below to contextualize and provide sourcing data for objects analyzed in this thesis. Special attention is paid to information relating to goods that feature in the analysis; specifically ceramics, beads, and nails.

#### ***Pacific Fur Company***

In studying available records of goods supplied to John Jacob Astor's traders, two classes of goods become evident: personal goods and trade goods. Traders' personal goods are important because these goods could have entered into the Native system and be the source of some of rare or unique objects recovered archaeologically. These are not listed in large enough quantity to appear to be meant as trade goods. Other goods appearing on the ledgers are believed to be trade goods meant for the Native market due to their quantities and their documented use as trade goods in the fur trade.

The documents of the Pacific Fur Company employee Ross Cox (Cox 1831) provide insight into the types of trade goods in the company's stores at Fort Astoria:

Our lading consisted of guns and ammunition, spears, hatchets, knives, beaver traps, copper and brass kettles, white and green blankets, blue, green, and red cloths, calicoes, beads, rings, thimbles, hawk-bells, &c; and our provisions of beef, pork, flour, rice, biscuits, tea, sugar, with a moderate quantity of rum, wine, &c.

The register of goods aboard the *Beaver* upon its departure from New York is largely similar to Cox' above list (Wiggins Porter 1931, 481-507). It also includes a few additional items important to the analysis presented here. The register shows British manufactured ceramic wares were among the goods initially imported to Fort Astoria (Table 2).

Table 2. Ceramic goods imported to Fort Astoria aboard the *Beaver*. Words in () were added to clarify original record.

2 quart pitchers	1 quart pitchers	White bowls & saucers	Moco (Mocha) half pint mugs	Dishes
Quart bottles	Enameled tea pots	Fancy bowls	Plates, assorted	Chambers (pots)
Milks (creamers or jugs)	White pint mugs	Wash (basins)	Sugars (bowls)	

The quantities of most of the imported ceramics (up to a few dozen of each vessel type) indicate these were not supplied as trade goods but for the traders' personal use. Plates and dishes, however, were imported in larger quantities (90 and 20 dozen, respectively) and that may suggest the intent to trade these items. Also aboard were blacksmith supplies including a portable forge and quantities of unformed iron and steel bars and rods. Six boxes of beads weighing 804 lbs. were also shipped to Fort Astoria aboard the *Beaver*. It can be confidently stated that these beads were expressly meant for exchange with Native traders. Some of the goods aboard the *Beaver* were likely for Astor's planned supply of Russian posts to the north.

Journals and ledgers from the Western Department of John Jacob Astor's American Fur Company from the years 1818 to 1823 provide additional insight into the types of trade goods the Astor's traders had access (Swagerty 1984). While these records post-date the American Fur Company's, or more specifically the Pacific Fur Company's activities, at Fort Astoria by

at least five years and are related to operations farther east, it can be assumed the trade goods procured by the Company for Native trade at Fort Astoria were not radically different.

Ceramic tablewares appear on the ledgers in small number: teapots, tea canisters, sugar bowls, platters, cups and saucers, soup plates, creamers, mug, pitchers, bowl, mustard pot, and are believed to represent wares for the trader's personal tables. Decorative types including "blue and white", "blue-edged", and "green-edged" are mentioned. It is assumed these terms describe refined white earthenware vessels, either hand painted or transfer printed in the case of the former, and edgeware decorated in the latter case. Also listed are more ambiguous descriptions: "white platter", "Earthen tea pot", and "brown pitcher."

Munitions are also numerous including gun flints, Northwest guns (a style of rifle designed for the Indian trade), shot, and powder. A variety of metal objects are listed. These can be sub-divided into two functional categories: technology and personal adornment. The technology category applies to knives, awls, files, saws, axes, needles, traps, and tin and copper kettles. "Indian" knives suggest a knife made expressly for trade. Objects known to have been popular for personal adornment by Native individuals include thimbles, buttons, brass arm and wristbands of varying width, hawk bells, earbobs, and "broaches." Large quantities of blue, white, black, and red glass beads are mentioned. Specific among these are "barleycorn" beads, a type of ca. 1750-1840 wound glass bead around 8 mm (0.3 in.) long occurring in white, black, and sometimes blue. Gorgets are also listed although the material of which these were made is uncertain. Multiple nail types including horseshoe nails, "Canada" nails, 29 ¼ d iron nails, are listed.

### ***The North West and Hudson's Bay Companies***

The entrance of the Canadian fur companies and their increasingly organized corporate infrastructures brought a more regular and homogenous supply of goods to the Lower Columbia River. Both the NWC and the HBC had regular and direct supply ships from London to the Columbia importing British made goods (Davidson 1918, 221). Besides shifts in the Native market, the types of goods imported reflect the companies' plans for long term settlement and re-creation of their cultural norms. More records survive relating the goods imported by the HBC than the NWC but it seems the majority of goods, and the operational

methods, used by the two companies were similar (Barbeau 1945; Nicks 1969; Prager 1980, 47). One difference is that the NWC imported goods directly from China (including Chinese porcelains) while HBC did not (Nicks 1969).

As stated previously, few records relating to the NWC's operations on the Columbia remain. However, Davidson (1918, 222) provides a list of goods imported from Britain to the Columbia River by the NWC from 1815 to 1819. This includes quite luxurious items such as silk stockings, distinctive foods (cheeses, pickles, and wines), "perfumery", and plated and gilt wares. Some more anticipated items on the list include arms and related object, tobacco, tea, and woolen blankets. Of interest to this thesis are the inclusion of wrought brass, iron, and copper, beads, hardware, and earthenware. No further descriptions or quantities of goods are provided by Davidson. It has also been suggested elsewhere that more expensive foodstuffs and goods were supplied directly from England for the high-ranking NWC employees at the Fort (Sanders-Chapman 1993, 14). Such behavioral patterning may be recognizable archaeologically.

More is known about the goods imported by the HBC to the Columbia Department due to the availability of better records and information gleaned from Fort Vancouver's thoroughly described archaeological assemblage (Ross 1976). Direct shipment by the HBC of goods to the Columbia Department began in the early 1820s. According to Davidson (1918, 223) the goods shipped by the HBC were similar to those previously imported by the NWC but the quantities were larger and included more food items. Ceramics were initially supplied by Robert Elliot; a London supplier who obtained his stock from a number of producers (Ross 1976, 236). In 1836, the HBC began an exclusive relationship with the Spode Potteries of Staffordshire in their various incarnations (i.e., Spode and Copeland, Copeland and Sons, etc.). This single supplier resulted in a rather limited variety of ceramics available via the HBC in the Columbia Department and a distinctive archaeological signature that is dominated by transfer print decorated refined white earthenwares (Ibid., 187, 236). HBC trade with China was highly regulated, however, a few Chinese ceramics were imported via maritime traders in the Sandwich Islands. This indirect source is reflected in the relatively small amount of CEP recovered from HBC's Fort Vancouver (Ross 1976, 237-238). Beads were imported to the

Columbia Department by the HBC. They were acquired from London merchants and from Canton fur traders (Ross 1976, 668).

It is worthwhile here to point out issues relating to the identification and attribution of fur trade era trade goods recovered archaeologically. The descriptions of the goods provided in fur trade records are less-than-detailed, complicating any attempt to match them to goods recovered archaeologically at either Middle Village or Fort Astoria/George. For the ceramic objects, it can be assumed that the descriptions are of decorative type as was the general practice of 19th century ceramic manufacturers and marketers (Majewski and O'Brien 1987). A large number of the imported trade goods cannot be expected to survive well in the archaeological record, such as cloth and blankets, for example.

### **Transitions in the Fur Trade**

The maritime fur trade on the Northwest Coast was not a long lived venture. Multiple factors played into the trade's decline and evolution to a land-based trade. To illustrate, William Sturgis, a Boston merchant in the China Trade, made multiple voyages to the Northwest Coast and kept a tally of ships trading there over multiple seasons. Sturgis' figures suggest the trajectory of the trade; as more ships traded on the coast, the market became flooded and prices received in China dropped (Table 3).

Table 3. Tally of trading vessels on the Northwest Coast for the year 1799-1802 (From Sturgis 1978, 113-131).

<b>YEAR</b>	<b># OF SHIPS</b>	<b>SKINS GARNERED</b>	<b>AVERAGE PRICE PER SKIN (\$)</b>
1799	9	11000	25
1800	6	9800	22
1801	10	13000	21
1802	20	14000+	20

At the same time, Chinese demand for furs declined (Dolin 2010, 164). By the 1820s, over-exploitation led to lower sea otter populations. Native traders demanded higher prices as time went on which cut into the profitability, and desirability, of the trade (Gibson 1992, 58).

Sociopolitical factors also influenced the decline in the maritime fur trade. For American traders, increasing trade regulation, the difficulties inherent to long sea and overland voyages, increased British competition following the War of 1812, and the development of more profitable and less risky investment opportunities in the American market made the trade less attractive (Ibid., 59-61; Layton 1997, 27). With increased industrialization in the United States, goods manufactured domestically replaced imports: cotton replaced nankeen cloth, American pottery factories produced whiteware ceramics with replicated Chinese decoration, and coffee imported from Central and South America was replacing tea in popularity (Gibson 1992, 249).

By 1820 the majority of the fur trade on the Pacific Coast of North America had shifted to land furs, mostly beaver, and away from the coast due to the decline in Chinese demand and the sea otter population (Gibson 1992, 240). As the maritime fur trade was eclipsed by the terrestrial trade, British-backed fur companies, first the NWC and then the HBC, rose to dominate the fur trade on the Columbia River and eventually monopolize it. The British strengthened their territorial ambitions to far western North America. In response to the changes in fur trade, the HBC moved its headquarters upriver to Fort Vancouver in 1825 and the importance of Fort George became much reduced. After the nexus of the fur trade on the Columbia moved away from the river's mouth and more terrestrial fur posts were established in the interior, the Lower Chinook stronghold on trade was broken. Upriver Natives could now deal more directly with the Euroamericans and economic opportunities were created for those away from the mouth of the Columbia (Ross 1923, 124-125; Thompson 1994, 160-161). More supply ships carrying larger quantities of goods from standardized sources arrived on the Columbia River, effecting Native access to mass-produced material culture and the eventual archaeological record resulting from fur trade interactions.

### **The Lower Chinook and the Fur Trade: Effects and Responses**

In the early fur trade period, the Lower Chinook, and other Northwest Coast tribes, had the upper hand in their interactions with Euroamericans. Due to the nature of the trade, the Euroamerican traders had more at stake and more desire to sustain good relations. The Lower Chinook displayed their agency and power within these early trading relationships through

their ability to manipulate the trade to their advantage. In traditional Chinookan culture, trade went beyond a commercial transaction to an event that held much social and political value. A shrewd bargainer and successful trader were much esteemed by their community and enjoyed increased social status (Ray 1938, 99).

Initially, the presence of Euroamerican maritime traders on the Northwest Coast was mercantile and temporary; no immediate plans for settlement on a large scale or disrupting Native society seem to have existed. To the Lower Chinook these traders were seen as providing opportunities to expand their exchange networks and expression of certain cultural traits (Peterson Del Mar 1995, 3-4). Traditional culture was not supplanted; material culture remained quite stable in terms of subsistence and technologies and some cultural features became more prominent (Ames et al. 2011; Sobel 2006). While the early fur trade largely fit into the established Native trade, changes to the scope, the context, and the goods traded within the pre-existing trade system did take place that had larger effects on Chinookan society (Hajda and Sobel 2013, 109).

By the time Euroamericans arrived on the coast in great numbers, the effects of introduced disease had begun to impact traditional Chinookan culture, a process that continued throughout the period (Boyd 2013). Some estimates indicate a 50% mortality rate among the Chinookan population between 1780 and 1805 (Ruby and Brown 1986, 24). The resulting social disruption created gaps in trading networks and within the social hierarchy, resulting in further opportunities for upward mobility for survivors (Hajda and Sobel 2013, 114; Peterson Del Mar 1995, 4; Silverstein 1990). In the face of a social structure in flux, astute Lower Chinook utilized their agency to increase their economic and social power, both in their dealings with other Natives and Euroamericans.

Pre-existing trade patterns continued, with Native traders from the north, south, and east, coming to trade at the mouth of the Columbia (Moulton 1990, 6:201). The Lower Chinook also continued to make trading trips to procure specialized products directly. In response to new demands, the quantity of inter-tribal trade may have increased in during this period (Sobel 2012). As mentioned previously, the large part of products procured by the fur traders at the mouth of the Columbia did not originate there. As the Lower Chinook sought to fulfill

the Euroamerican fur traders demand for certain products, they looked to Native trading partners to provide them. Alfred Seton, a clerk with the Astor party, recalls two Lower Chinook villages across the river from Fort Astoria: "... trade considerable Fur with...on the sea coast [o] the Southward &....the river here" (Jones 1993, 91).

The Lower Chinook occupied an advantageous position for trade with Euroamerican vessels entering the river and they used their position to establish a trade monopoly at the mouth of the Columbia, in which they channeled furs they procured from other Native groups to the traders (Ray 1938, 100). Specific to this thesis, Middle Village was particularly well-situated to take advantage of trade opportunities given its excellent views of river traffic and the location on the north shore of the Columbia, on the historic shipping channel and near safe anchorages. As middlemen in the trade, the Lower Chinook received trade goods from the Euroamericans that they redistributed to their fur suppliers (Jones 1972, 16; Ross [1904] 1923, 131). Through their control of the trade in prestige goods, the Lower Chinook maintained power in their dealing with Euroamericans and may have increased their economic and political influence within the Native system (Hajda and Sobel 2013, 110; Sobel 2004; Wilson et al. 2009, 399-400).

To ensure the continuation of this situation, the Lower Chinook used multiple strategies to keep other Native groups and Euroamerican traders from trading directly. Secrecy and deception were used to their advantage (Peterson Del Mar 1995, 4). The Lower Chinook would not divulge their fur suppliers to the Euroamericans. They also spread stories to instill fear and mistrust between other Natives and the Euroamericans while presenting themselves as trusted partners (Ross 1923, 78, 84, 94-95). As the Lower Chinook's actions became clear, traders did try to disrupt the Lower Chinook's monopoly of upriver trade by establishing direct trade ties with Native groups the Lower Chinook had kept away (Ibid., 97).

To fill niches created by trade with Euroamericans, certain groups became more specialized in their economic activities. Production of certain goods, likely those desired by maritime fur traders, appears to have increased in the early contact era. Archaeological evidence from Cathlapotle supports this, showing an increase in contact-era processing of elk hides, likely reflecting the manufacture of clamons mentioned historically as a specialty of the Natives



around Cathlapotle (Boyd 2009; Sobel 2006). It has been suggested that residents of Middle Village specialized in trade. Archaeological investigations (Wilson et al. 2009) revealed a paucity of artifacts relating to domestic and subsistence activities while trade goods were numerous.

Such specialization affected traditional subsistence patterns. Those who chose to focus on fur trade activities became more dependent on trade with other groups to supply subsistence products. In response to the fur trade, some shifts in settlement patterns away from traditional resource sites to strategic positions for access to the Euroamerican trade ships occurred (Hajda 1984, 266-267). Lower Chinook strategically located settlements to provide for accessibility to and for Euroamerican traders (Roe 1966, 118). Middle Village may be an example of this phenomenon (Wilson et al. 2009, 432-433).

Prior to the arrival of Euroamericans, long distance trade was the purview of elites with hereditary rights to resources and large kin networks. The early fur trade created opportunities for lower status individuals to circumvent traditional structures and enter into this expanded market, thus gaining social status through success in trade and thereby accumulating wealth (Hajda and Sobel 2013, 123; Peterson Del Mar 1995, 4). Old strategies, i.e., charging tolls on traders passing through one's territory, were adapted to these new economic opportunities (Hajda and Sobel 2013, 113-114). Important features of inter-tribal trade, such as alliance building and development of trade contacts, were also adapted to these new opportunities. The Lower Chinook headman Concomly illustrates this well. At the advent of the fur trade on the Columbia, Concomly appears to have been second-tier leader in terms of wealth and influence (Roe 1966, 118). Concomly saw the potential of trade with Euroamericans to positively affect his standing and acted to create a place for himself within that realm. Owing to the beneficial position of his village, he was often the first Native contact with traders entering the river. Concomly wasted no time in establishing friendly relations through gifting and hosting newcomers, and securing his position as their supplier of furs and pelts (Jones 1999, 9, 20, 24; Moulton 1990, 6,72-73; Roe 1966, 118). The Astorians came to view the relationship with Concomly as vital for their success of their venture and even their personal safety; they took steps to cultivate the alliance including gifting and intermarriage with Concomly's daughters,

following the Native custom (Jones 1999, 203; Ronda 1990, 222). His maneuvering in the early period propelled his rise in influence and wealth to the most significant Chinookan leader in the Lower Columbia region (Silverstein 1990, 541).

As social hierarchy expanded, an increase in status consciousness and rank as compared to pre-contact Chinookan society occurred (Ellis 2006, 134; Hajda 2013, 157; Hajda and Sobel 2013, 122; Peterson Del Mar 1995, 4; Sobel 2004). Archaeological evidence suggests differential access both intra and inter-site to prestige goods (Sobel 2006; Wilson et al. 2010). As a consequence, the need to communicate one's status also grew. This could be accomplished through the display and redistribution of prestige goods; driving trade and increasing feasting and giveaways (Gibson 1992, 270). It is likely Chinookans found certain introduced trade goods; glass beads, copper ornaments, and perhaps ceramic vessels, especially attractive for these purposes and that these preferences shaped the archaeological record that this thesis will examine.

As the focus of the fur trade shifted inland and away from the coast, the strength of the Lower Chinook's position within fur trade relationships decreased. Their economic ties to the HBC traders were not severed, however. As the HBC became a more permanent feature on the Columbia and their operations at the river's mouth transitioned to commercial salmon fishing, many Lower Chinook sold them fish (Deur 2016, 81). This became one of the few economic opportunities available to Lower Chinook people as they moved into the tumultuous settlement era.

### **Chapter Summary**

In this chapter, both Chinookan and Euroamerican cultural contexts leading into the early fur trade period have been discussed. An understanding of both these mercantile cultures highlights the parts both played in the development of and responses to the fur trade on the Lower Columbia. Knowledge of these contexts and of the types of goods exchanged will provide a basis for understanding the material records at both sites and the interpretation of analysis results and the basis for discussion that will be presented later in this thesis.

## **CHAPTER 4: ARCHAEOLOGICAL AND HISTORICAL OVERVIEW**

This section presents a summary of formal archaeological research conducted to date near the mouth of the Columbia River and the adjacent coastlines of Oregon and Washington in order to contextualize the Middle Village/McGowan (45PC106) and Fort Astoria/George archaeological sites within the local area. The archaeological investigations conducted at the two subject sites will also be outlined. Additional historical information is provided to orient these sites within wider historical and social patterns. Information in this chapter will provide context pertinent to the analysis of archaeological materials recovered from the subject sites presented in Chapter 5.

### **Archaeological Context at the Mouth of the Columbia River**

Little in-depth archaeological research of either pre-contact or historical sites has been undertaken on the Lower Columbia and the adjacent coastal areas. Table 4 summarizes the most prominent archaeological excavations in the Lower Columbia region and those with comparative site histories and similar material records to Middle Village and Fort Astoria. Between the 1940s and 1960s, archaeological surveys sponsored by the University of Washington, the Smithsonian Institution, and the University of Oregon did record several sites in the area though mostly concentrating on coastline (Collins 1953; Daugherty 1948; Hudziak and Smith 1948; Kidd 1960, 1967). Large-scale excavations have occurred at only three sites. The Martin site (45PC7) on Washington's Willapa Bay featured a large shell midden and structural remains with radiocarbon dates of A.D. 90 and A.D. 510 (Alexander 1958; Brown 1977; Kidd 1960, 1967; Shaw 1977). The Palmrose site (35CLT47) and the Par-tee site (35CLT20) are both at present-day Seaside, Oregon, and were excavated by Phebus and Drucker (1973, 1977). Both contained extensive midden deposits with artifacts suggesting a wide-range of subsistence activities and radiocarbon dates suggested occupation as early as 1700 B.C. At Palmrose, this date was obtained from a sample collected with a plankhouse feature, making this the oldest dated plankhouse in the region. The most extensive archaeological research conducted in the area to date was completed by Minor (1983) and included intensive survey and testing of six sites around the mouth of the Columbia River. The earliest occupation date obtained by Minor was 1180 B.C. at Eddy Point (35CLT33).

Four of the tested sites (35CLT34, 35CLT37, 35CLT36, and 45PC35) showed evidence of contact period occupation based on the presence of Euroamerican trade goods in association with traditional Native artifacts. From collected data, Minor developed a functional typology and cultural sequence for the Lower Columbia. Approximately 50 km upriver, small-scale excavations at Bay View (45WK50) revealed a Chinookan village with a fur-trade era assemblage that included Euroamerican trade goods (Gehr 1975).

The previously explored sites in closest proximity to Middle Village/McGowan are 45PC25, the site of the historically-recorded Lower Chinook settlement of Chinookville located just to the east and its associated burial ground in the hills to the north, 45PC4 (Cook 1955). A site form completed for 45PC25 records the purported presence of an historic-era Native burial at McGowan in the vicinity of an early twentieth century barn and a long house village.

In closest proximity to Fort Astoria/George, two sites have been recorded on tidally influenced mudflats along the north shore of Youngs Bay. Approximately 3.2 km (2 mi.) south of the fort site, 35CLT6 was first recorded by Collins (1951) and later revisited by Phebus (1974) and Connolly 1994). Lithic tools and historic trade goods have been recovered from the site. To the east of 35CLT6 approximately 2.4 km (1.5 mi.) is 35CLT22. Flaked stone tools and fire cracked rock have been documented at the site and it is reported that historic-period trade goods have also been recovered from the site (Connolly 1994; Minor 1977; Tasa 1994).

Data from other excavated fur trade sites with similar histories will be important to contextualize this analysis. Both Fort Spokane and Fort Okanogan were excavated in the 1950s by National Park Service archaeologist Louis Caywood (1954a, 1954b). Later, Combes (1964) conducted more excavations at Fort Spokane and Graeber (1968) at Fort Okanogan. Little in-depth analysis exists for the majority of artifacts recovered from these sites; however, Cromwell (2006b) has re-analyzed ceramics artifacts from Fort Spokane. Beginning in the 1940s, Fort Vancouver has been the subject of ongoing and extensive archaeological study, amassing a large body of data on many topics concerning the later fur trade and the pluralistic society created around the Fort (Caywood 1947, 1948 a- b, 1949, 1955; Cromwell 2006a; Hussey 1949, 1957; Kardas 1970, 1971; Ross 1976).

Table 4. Lower Columbia archaeological sites in proximity to Middle Village and Fort Astoria.

<b>Site Number / Name</b>	<b>Site Location</b>	<b>Site Type and Description</b>	<b>Occupation date</b>	<b>Reference</b>
35CLT6 Williamsport	North shore of Youngs Bay	Possible midden. Impacted by road construction. Lithic tools and historic trade goods recovered from the site.	Contact-era	Collins (1951), Phebus (1974), Connolly (1994)
35CLT20 Par-tee	Seaside, Oregon	Extensive midden deposits containing varieties of bone and antler and lithic tools. Faunal remains suggest focus on coastal resources.	AD 245 and AD 915	Phebus and Drucker (1973, 1977)
35CLT22 KAST	North shore of Youngs Bay	Site impacted due to modern construction. Flaked stone tools, fire cracked rock and historic trade goods have been recovered from the site.	Pre-contact and contact-era	Minor (1977), Connolly (1994), Tasa (1994)
35CLT33 Eddy Point	South shore of Columbia River, west of Knappa, OR	Winter village site. Flaked stone, bone, and antler tools, including harpoons, ground stone fishing technologies.	1180 BC to AD 1060	Minor (1983)
35CLT34 Ivy Station	South shore of Columbia River, west of Knappa, OR	Hunting and fishing camp. Euroamerican trade goods in association with traditional Native artifacts. Euroamerican goods include Chinese porcelain tablewares and porcelain doll parts.	Contact-era	Minor (1983)
35CLT36 Reith	East shore of Lewis and Clark River	Hunting camp. Euroamerican trade goods in association with traditional Native artifacts. Euroamerican goods include, bottle glass, Chinese porcelain, glass beads, nails, and copper.	Contact-era	Minor (1983)
35CLT37 Knappa Docks	South shore of Columbia River, west of Knappa, OR	Euroamerican trade goods in association with traditional Native artifacts. Euroamerican goods include, bottle glass, Chinese porcelain, banded creamware, glass beads, nails, musket ball, and rolled copper beads.	Contact-era	Minor (1983)

Table 4. Continued

<b>Site Number / Name</b>	<b>Site Location</b>	<b>Site Type and Description</b>	<b>Occupation date</b>	<b>Reference</b>
35CLT47 Palmrose	Seaside, Oregon	Extensive midden deposits and plankhouse remains. Varieties of bone and antler and lithic tools. Faunal remains suggest focus on coastal resources.	3700 BP to AD 200	Phebus and Drucker (1973, 1977)
45PC4/45PC25 Chinookville	North shore of Columbia River, just to the east of Middle Village	Native burial site and historic Lower Chinook settlement of Chinookville. Location of ca. 1840 HBC trade store and settlement-era townsite. Site impacted by erosion and highway construction.	Historic-era	(Cook 1955; Kidd 1960)
45PC7 Martin	Willapa Bay	Village. Extensive shell midden and structural remains. High numbers of lithic tools and mammal remains.	A.D. 90; A.D. 510	Alexander (1958); Brown (1977); Kidd (1960 and 1967); Shaw (1977)
45PC35 Fishing Rocks	NW side of Cape Disappointment	Seasonally-occupied camp. Shell midden deposits from multiple occupations. Historic-era artifacts include Chinese porcelain and lamp glass.	AD 980 to historic-era	Minor (1983)
45WK50 Bay View	North shore of Columbia River, near Skamokawa, WA	Native village and later Euroamerican salmon cannery. Traditional Native technologies recovered included ground and flaked stone tools. Fur trade-era goods included cut and wrought nails, glass beads, and British refined white earthenware ceramic tablewares.	Contact- to historic-era	Gehr (1970)

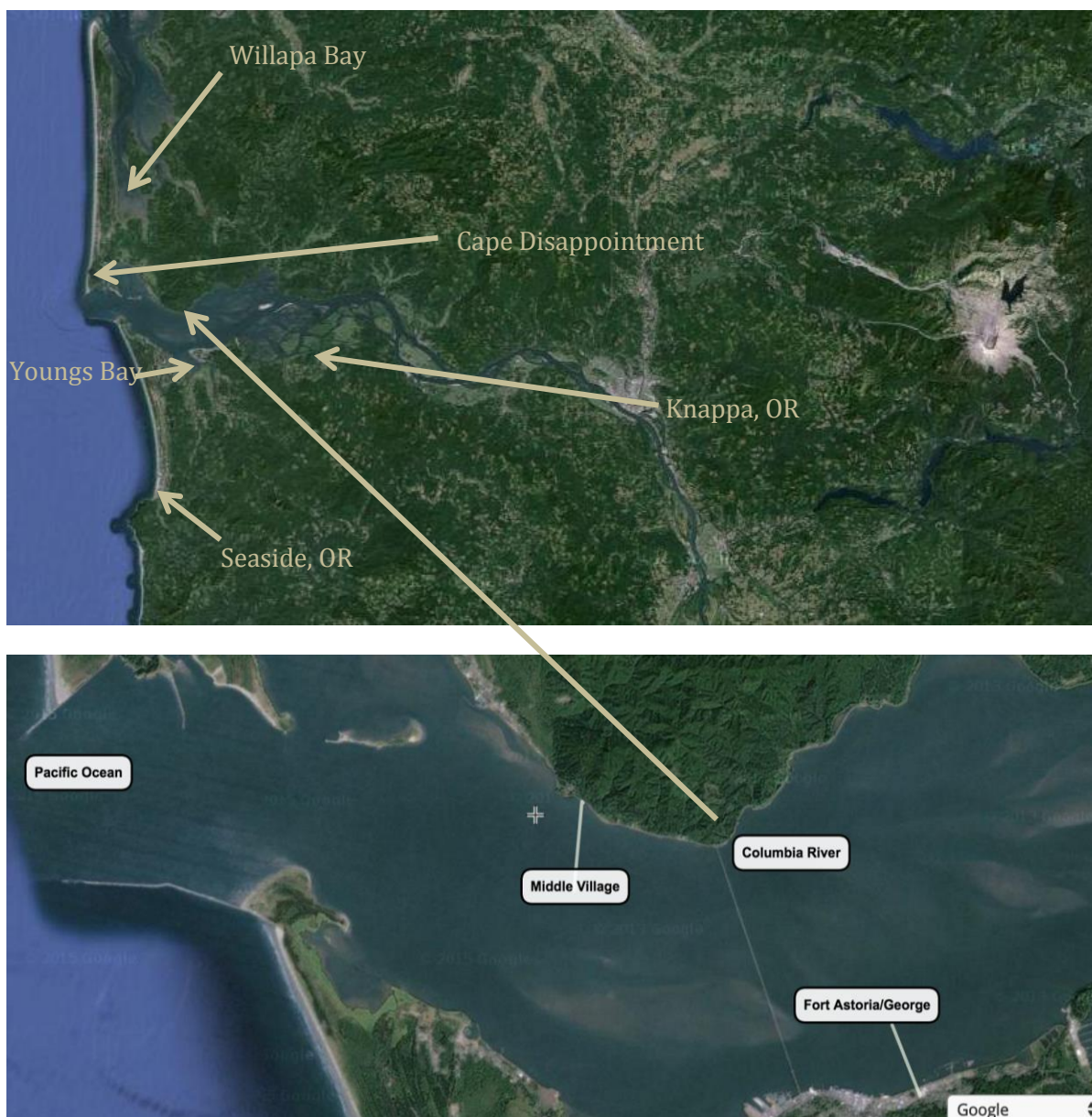


Figure 5 a & b. Top (a): Lower Columbia River region. Bottom (b): Mouth of the Columbia showing Middle Village/McGowan site (45PC106) on the north shore and the Fort Astoria/George site on the south shore. Image source: Google Maps.

### **Site Overview and Historical Background: Middle Village/McGowan**

Middle Village (45PC106) is within the boundaries of Lewis and Clark National Historical Park on the north shore of the Columbia River in Washington State and approximately 18 km

(11 mi.) from the Pacific Ocean in Washington State. The general vicinity between Point Ellice and Chinook Point held numerous historically and archaeologically documented pre- and post- contact Lower Chinook villages and saw much Euroamerican activity in the historic era (Minor 1983; Wilson et al. 2009, 20-21).

The Lower Chinook name for the village is *qiq'ayaqilxam*, meaning “middle town” and likely reflecting its relative position to other settlements on the north shore of the Columbia (Ray 1938, 39). Early charts of the mouth of the Columbia River document the presence of a Chinook village at or near the site (Broughton 1792; Duflot deMofre 1844; Lewis 1814). Duflot DeMofre’s chart (Figure 6) shows a village of four lodges just downriver from Point Ellice while Broughton’s indicates a much larger village between Point Ellice and Chinook Point (Figure 7). Change in the size of the settlements over time could be related to the shifting of settlements due to the season or to the effects of introduced disease. After a series of outbreaks throughout the contact period, a major epidemic in 1830 devastated the Native population of the Lower Columbia. The abandonment of Middle Village and wider impacts on the regional influence of the Chinookan population at the mouth of the river may have also resulted from this epidemic (Deur 2016, 79-80).

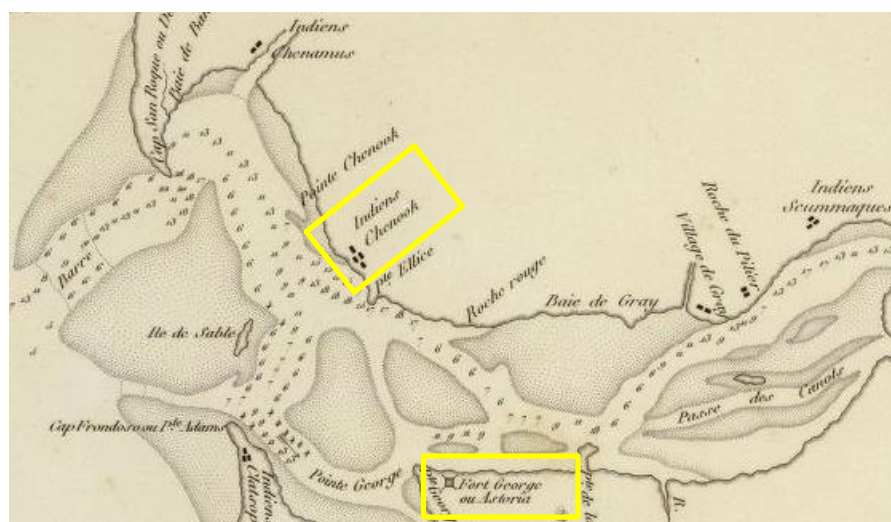


Figure 6. Map titled *Carte du Rio Columbia*, which was created by French explorer Eugene Duflot de Mofre, ca. 1840-42. Four houses on the north shore of the Columbia between Point Ellice and Chinook Point are labeled “Indiens Chenook” in the vicinity of Middle Village. “Fort George ou Astoria” is recorded on the south shore.



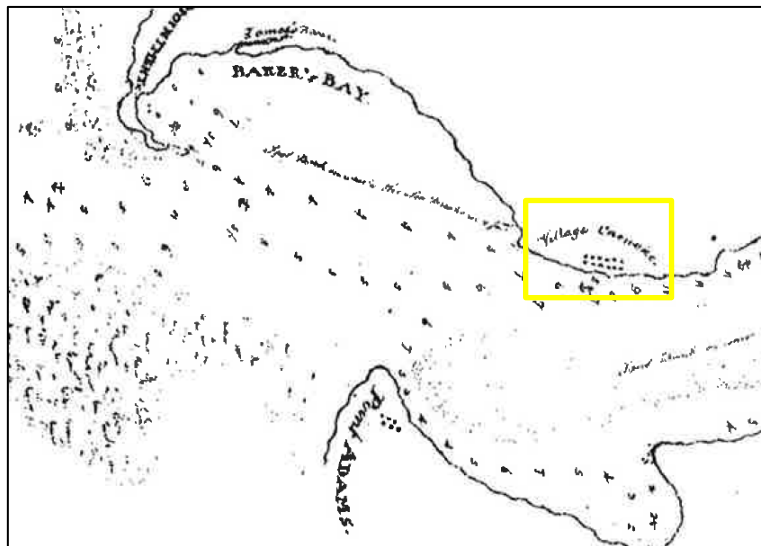


Figure 7. Lieutenant Broughton's 1792 map of the mouth of the river marking the location of a "Village Chenoke" in area of Middle Village. Image source: Oregon Historical Society.

The site's location fronting the Columbia River and proximity to Fort Astoria (approximately eight miles traveling by river) allowed villagers to easily interact and trade with maritime vessels and traders at Astoria. Logs of Captain Gray's 1792 voyage describe interactions with the residents of a large village on the north shore "about five leagues from the entrance" of the river (Boit 1920, 309). Vancouver's 1792 map (Figure 8) marks an anchorage just to the east of Middle Village, used by many ships and facilitating access to trading vessels.



Figure 8. Detail of George Vancouver's "A Chart Shewing Part of the Coast of N.W. America, Entrance to the Columbia River" showing the anchorage to the east of Middle Village. Library of Congress digital map collection, catalog #2003627084.

Lewis and Clark's Corps of Discovery established camp at or near the site for 10 days in November 1805 (Moulton 1990, 6:72). They encountered several unoccupied Native houses, likely due to the season and location when the Lower Chinook would have been in their winter villages (Figure 9). From this location, the Corps scouted and surveyed the surrounding area, thus referring to the camp as Station Camp (Ibid., 84). They stayed for several days before crossing to the south shore where they would eventually establish their winter quarters.



Figure 9. Map showing location of Lewis and Clark's Station Camp and neighboring Lower Chinook village (Middle Village). Based on William Clark's map of the mouth of the Columbia River (Allen 1814).

The Astorians and the Lower Chinook were highly involved with one another, especially through Concomly (Ronda 1990; Ross 1923). Later in the early historic period, the area between Chinook Point and Point Ellice attracted more Euroamerican activity. The Hudson's Bay Company operated a store near the Lower Chinook village known as Chinookville adjacent and to the east of Middle Village from 1840 (Wilson et al. 2009, 25). The Stella Maris Catholic mission was founded in 1848 under a mission land grant between Middle Village and Chinookville (Deur 2016, 93-94; Swan 1857, 102). A new church was built at McGowan in 1904 and still operates today. The original mission buildings were located farther east than the extant structure (Harrison 2003, 34). Hudson's Bay Company agent Rocque De Cheney and his wife Mary Rondeau, a granddaughter of Concomly, settled on a donation land claim at Chinook Point in 1856, later selling the land to the U.S. Government in 1864. The U.S. government established Fort Columbia there in 1897.

P.J. McGowan bought 320 acres from the church in 1853 and had established the first commercial salmon packing business in the region there seven years later. Initially, McGowan hired Lower Chinook, perhaps nearby villagers, to seine for salmon and prepare it for salt packing in barrels for shipping (McDonald 1966, 72-73). The peak year for packing business was 1883. As McGowan's packing venture grew, a town bearing his name was established to serve his employees, by now mostly Euroamericans and Chinese. By 1904 the town of McGowan included residences, a store, a post office, and the new Stella Maris church. P.J. McGowan moved his operations downriver to Ilwaco, Washington, by 1901. A narrow-gauge railroad was constructed along the river through the town from 1907 until 1908, and continued operation until 1930. A car ferry landing operated at McGowan's docks from 1922 until 1929. By 1945, McGowan was largely abandoned (Wilson et al. 2009, 25-31).

### **Archaeological Background: Middle Village/McGowan**

In advance of the bicentennial of the Lewis and Clark expedition, an interpretive park at the site of Station Camp was proposed. The proposed project included realignment of a portion of state highway through a newly defined park and required cultural resources investigations to be conducted. Project partners included federal and state agencies: the National Park Service, Washington State Historical Society, Washington State Department of Transportation, and the

Federal Highway Administration. The Chinook Indian Nation was involved in all phases of the project.

Between 2002 and 2010, contract and National Park Service archaeologists conducted a series of archaeological test and data recovery excavations within the proposed project area (Harrison 2005, Smith et al. 2010, Wilson et al. 2009). A multi-component site, 45PC106, consisting of an early contact-period Lower Chinook settlement known as Middle Village and the nineteenth century salmon cannery town of McGowan, was documented. No conclusive evidence of the Corps of Discovery's presence at the site was encountered. It was determined that Middle Village was occupied during the early contact period (1790-1820) and represents the earliest fur trade assemblage recovered from a Native context in the Lower Columbia region (Wilson et al. 2009, 2). The resulting collection is housed at the Lewis and Clark NHP curation facility located at park headquarters near Astoria, Oregon.

#### **Site Description: Middle Village**

Initial testing revealed the majority of cannery town-era materials were recovered in the eastern part of the tested area and up to about 30 cm below ground surface including concentrations associated with McGowan-period buildings in a largely disturbed and mixed context (Harrison 2003, 54-56). Deposits from the contact-era Lower Chinook settlement were more numerous in the western portions of the site, behind the church, and near an early twentieth century concrete barn foundation. Contact-era deposits were defined by the presence of Euroamerican trade goods alongside objects of traditional Native manufacture and Native-attributed features. It was determined that the contact-period deposits resulting from the Lower Chinook occupation of the site retained integrity and could reveal data on a little understood early contact or proto-historic period.

Data recovery excavations conducted by National Park Service and Portland State University archaeologists between 2004 and 2005 focused on characterizing the Middle Village component of the site; collecting data on architectural features, economy, trade, social patterns, and subsistence practices (Wilson et al. 2009) (Figure 10). Ground penetrating radar (GPR) surveys were employed to guide excavation placement. In addition to hand excavation, mechanical stripping and shallow trenching was performed. Supplemental test excavations

provided presence/absence of significant cultural deposits information and directed the placement of larger excavation units. Large block excavations, designated Areas A to H, were placed to sample areas with identified intact deposits and features.

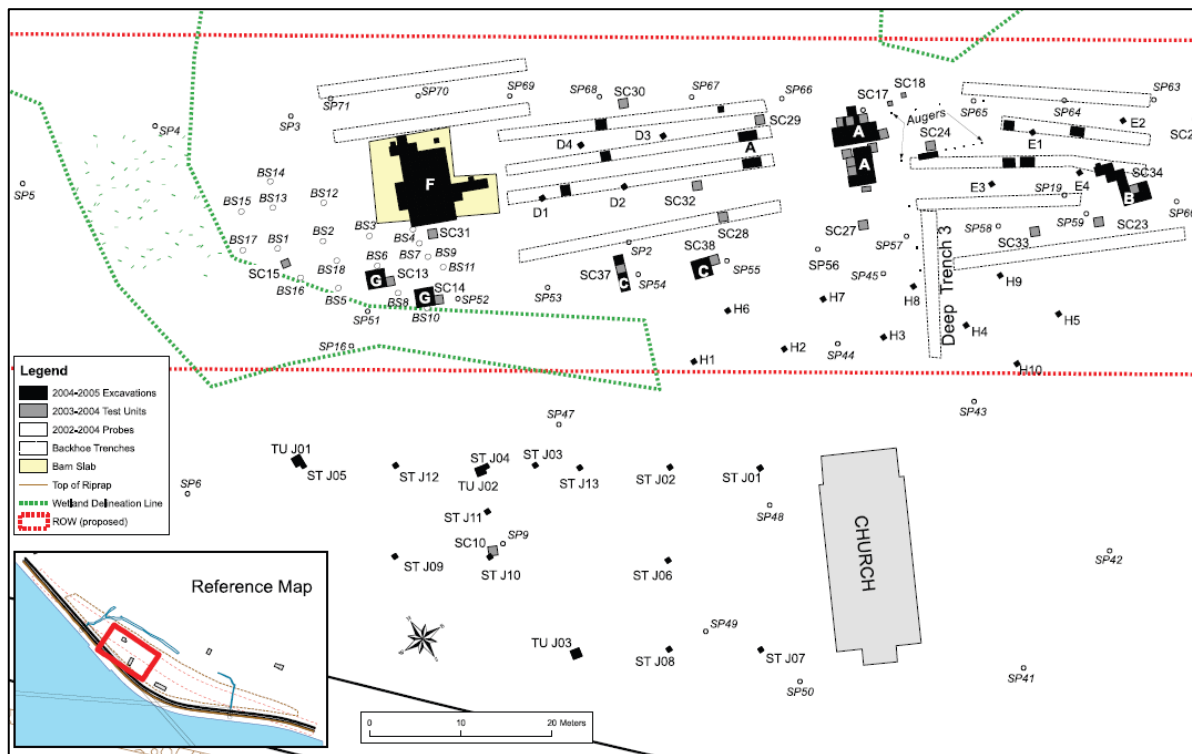


Figure 10. 45PC106 site map showing excavated areas in the eastern portion of the site where intact contact-period Middle Village deposits were intersected.

Excavations in Areas A, B, C, D, E, F, and G encountered intact cultural strata dating to the early contact-period Lower Chinook village including architectural features relating to at least five contact-period plankhouses, discrete activity areas, fur-trade-period artifacts, and faunal and botanical remains (Wilson et al. 2009). Chronological analyses including both relative (i.e., artifact typology) and absolute dating (i.e., radiocarbon dating) techniques confirmed the excavated Middle Village component dates to the early contact period (ca. 1790 to 1820) with very limited evidence for pre-contact use. The archaeological evidence from Middle Village indicates that trade with Euroamericans was the major economic focus of its residents (Wilson et al. 2009). This is based on the paucity of artifacts and remains relating to traditional domestic and subsistence activities the high numbers of introduced trade goods.

In 2010 Northwest Archaeological Associates, Inc. conducted additional subsurface archaeological investigations on a previously unexplored portion of the APE. No intact contact-period or earlier deposits or features were encountered (Smith et al. 2010).

### **Site Overview and Historical Background: Fort Astoria/George**

Historical background information relating to the founding of Fort Astoria and its evolution to Fort George is provided in Chapter 3 of this thesis. Physical details of the post's construction will be described here as they relate to identification of potential remains encountered during archaeological excavations at the site. Construction of original portions of Fort Astoria began as soon as possible after the arrival of the *Tonquin* in 1811. Descriptions of the site and its layout are provided by members of Astor's initial party (Franchère 1967; Ross 1923). The first building erected was the warehouse to store goods aboard the ship (Ross 1923). A year after work began, Fort Astoria consisted of a large trading store, a dwelling house, workshops, a powder magazine and storage sheds surrounded by a square palisade measuring 90 x 120 ft. The square stockade wall was 15-17 ft. tall with a gallery equipped with gun holes around it and equipped with cannon mounts at the four corners (Morris 1937, 414-417). Gardens and livestock were outside the palisades (Ibid., 197).

Under the North West Company's ownership (ca. 1812 to 1821), the post expanded with buildings and fortifications added (Morris 1937, 414-417). During the tenure of the HBC, the importance of Fort George was much reduced. It mainly operated as a storage facility and depot for items coming or going from upriver from 1825 to 1829 (Penttila 2002, 18). The post was perhaps even fully abandoned and inhabited by Native Clatsop peoples for a time in the mid-1820s (Morris 1937, 419). In 1829, the HBC rebuilt the post for expanded use as a warehouse and depot and for new operations including salmon fishing and lumbering for company needs and also for commercial export (Deur 2016, 75-81). The post also served the need of guiding vessels over the treacherous Columbia River bar. By the 1830s the palisades around the fort ceased to exist and only three or four buildings remained around which the Clatsop had built houses (Figure 11) (Morris 1937, 422-423).

By the May 1841 of visit of Lieutenant Charles Wilkes of the United States Navy, the lack of importance of the site and HBC's subsequent neglect was evident. At the time it consisted of

“Half a dozen log houses, with as many sheds, and a pig-sty or two...and even these appear to be rapidly going to decay... Astoria has merely been held for the convenience of their vessels” (Wilkes 1849, 320). The HBC but did not fully abandon Fort George until 1849 (Deur 2016, 86).

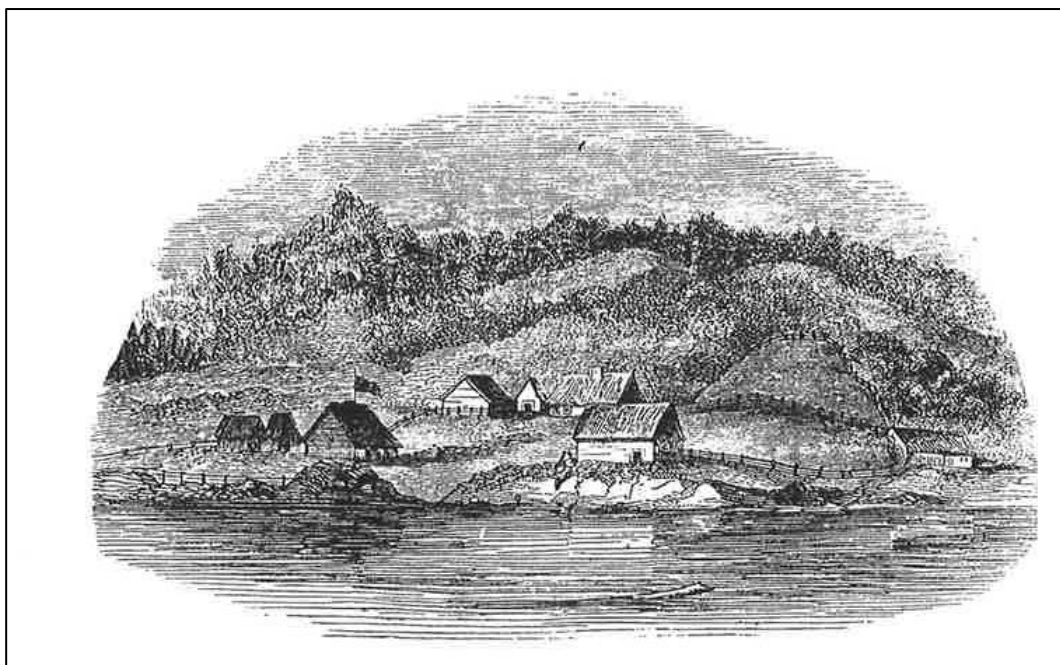


Figure 11. Fort George ca. 1839. Drawn by Captain Edward Belcher of the British Royal Navy. Courtesy of Clatsop County Historical Society (CCHS Photo # 30, 146-900).

Most of the first Euroamericans settlers in the region, aside from who established the fur company forts, were former fur company employees who had often married Native wives and chosen to stay in the region. In the early 1840s, others began arriving and establishing land claims signaling the transformation of Astoria from fur trade post to town (Cleveland 1903, 132). Initial settlers at the mouth of the Columbia relied on the Fort George company store for many supplies. One these early settlers was J.M. Shively who in 1843 claimed land that in what is now the center of the city and built a home just south of the fort site. In 1847, Shively became postmaster of the first United States post office west of the Rockies which operated from his home south of the fort. After 1846 the number of American migrants to Astoria began to grow, largely drawn to the potentials of the timber and fishing industries (Miller 1958, 98). The town also became important as a shipping port (Cleveland 1903, 134). Most initial development of the town took place to the east, and then to the west, of the fort site and

along the riverfront (Watters et al. 2009, 22, 24). With the departure of the HBC, the U.S. Army took possession of the fort site and put the remaining buildings up for public auction in June of 1853 (Penner 2000, 46). Astoria was incorporated by the territorial legislature in 1856. Following industrial growth in the later part of the nineteenth century, Astoria's hillsides overlooking the river became a popular place for the upper-classes to build their homes (Chappel 1995, 3). In the late 1870s and 1880s there was a residential building boom in the area around the fort site (Cleveland 1903, 141). Due to its location it became known as the Fort Hill neighborhood. Churches, schools, and a hospital were also built in the neighborhood. St. Mary's Hospital opened in 1880 and was constructed on a portion of the original fort site. Streets and sanitation systems were improved in the early twentieth century and residential development expanded (Chappel 1995, 3, 26).

The river's high water mark was historically very near the fort. Astoria's early commercial center included wooden building constructed on wooden pilings over the river. Two fires devastated Astoria historically: one in 1883 and a second in 1922. The 1883 fire burned several blocks along the waterfront. The 1922 fire destroyed much of downtown Astoria but the fort site was just beyond the area burned. Fill material, possibly including rubble from the fire, was deposited on to the tidal flats of the river in 1923 extending the shore to the north several blocks (Chappel 1995, 4) (Figure 12).

The general location of the original fort site is in the area of 15<sup>th</sup>, 16<sup>th</sup>, Duane, and Exchange Streets. In the twentieth century, impacts to the site have included demolition of earlier structures and new residential and commercial development. City public works projects have also been included within the site. The streets took their modern alignment and were paved in the early twentieth century (Chappel 1995, 24). Offering some protection, a small park including a small-scale reconstruction of the fort was established in 1956 at the corner of 15<sup>th</sup> and Exchange Streets (Miller 1958, 54). The site has been listed as a National Historic Landmark since the 1960s.

From the 1880s through the mid-1930s, several inadvertent archaeological discoveries were informally recorded and attributed to Fort Astoria/George. Specifically, wooden palisade butt ends were discovered during residential construction excavations in 1885 and sewer line excavation in 1891. In 1930, excavations for the basement of the St. Mary's Hospital revealed



a row of palisade rounds and a “refuse dump,” which may have been a privy (Watters et al. 2009).

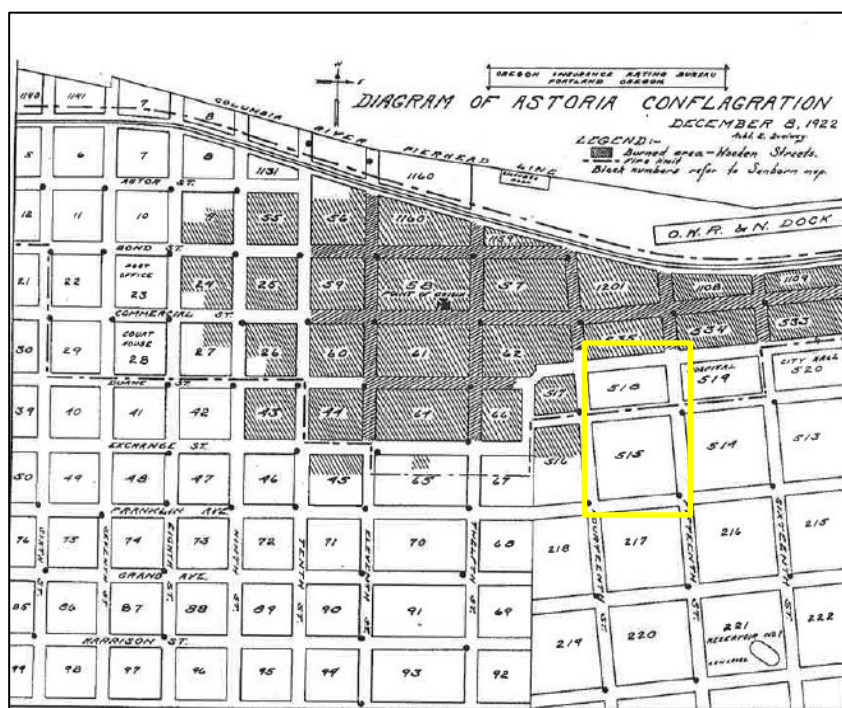


Figure 12. Map of downtown Astoria. Grayed area depicts the area burned in the 1922 fire. Outline of the approximate location of the original fort is shown in yellow.

### Archaeological Background: Fort Astoria/George

Inspired by bicentennials of both Astoria’s founding and of the War of 1812, stakeholders including the City of Astoria, private landowners, and the National Park Service explored sponsoring the first archaeological investigation at the site around 2008. Archival research and initial site assessments determined that while principal portions of Fort Astoria/George are roughly located at the corners of 15th and Exchange Streets. Beneath extant buildings and street infrastructure, relatively undisturbed archaeological deposits may still exist (Watters et al. 2009, 2). In the summer of 2011, an archaeological field school sponsored by the National Park Service, the Northwest Cultural Resource Institute at Fort Vancouver National Historical Site, Portland State University, Washington State University at Vancouver, and Clatsop Community College conducted limited excavations at the site. Goals of the project included

determining the fort's configuration through its various incarnations over time from 1811 to 1848.

### **Site Description: Fort Astoria/George**

Between July 31 and August 3, 2012, limited excavations were conducted in three areas around the site of Fort Astoria/ George (Figure 13). No formal report on these excavations has been completed to date. The current Fort Astoria Park served as the central location while excavation also took place two other sites related to Astoria's early history: to the north at Tidal Rock, a landmark used historically as a river-level marker, and to the south at the site of Shively's post office. The three sites are owned by the City of Astoria and largely undeveloped. At the fort park, five 50 x 50 cm shovel test units and two 1 x 1m test units were excavated. Five 50 x 50 cm shovel test units were excavated at the post office site. Three 50 x 50 cm shovel test units were excavated at Tidal Rock. Historic maps overlays and descriptions were used to select areas for excavation within vacant city owned property that may overlap with three of the North West Company's storehouses and one of the fort's log stockade walls (Wilson pers. comm. 2015).

All excavated sediments were determined to be fill deposits or previously disturbed. Fur trade-era artifacts were recovered from upper strata and modern objects were encountered in the lowest excavated cultural levels. The area had undergone development and redevelopment as the site was integrated into the urban core of Astoria since the late nineteenth century. A layer of concentrated charcoal and architectural rubble occurred at different levels across the excavated areas between 17 and 100 cm below surface and is likely related to the 1922 Astoria fire. This layer overlay disturbed sediments in the fort park excavation area. Of the five features identified across the site, two were determined to be historic in origin. A post mold with fill containing burnt bone was excavated at the post office area. At the fort park area, what was interpreted as a collapsed cellar from 1920s was encountered.

Recovered artifacts reflect the use of the site beginning in the early eighteenth century to the present day. Some objects have probable fur trade origins, such as a brass hawk's bell and glass trade beads, while the dates and use of others are more ambiguous: tobacco pipes, bottle glass, or blue-and-white printed ceramics, for example. Many objects had long periods of

manufacture and use and it is problematic to assign them to an early fur trade origin and not later incarnations of Fort George or even into the settlement era.



Figure 13. Fort Astoria excavation areas, 2012. View north. Excavated areas outlined in red, from north to south: Tidal Rock, Fort Astoria Park, and Shively Post Office.

## Chapter Summary

This chapter presented the historical and archaeological contexts for the Middle Village and Fort Astoria/George sites to provide a basis for understanding the archaeological assemblages and site preservation factors at each. These site histories, descriptions of subsequent activities at the sites, and archaeological summaries will be useful in the interpretation of artifacts analyzed in this thesis. Particular attention was paid to site formation processes at Fort Astoria/George to address the limitations of data gathered from the site. Principal among these are the lack of well-defined stratigraphy and closely successive occupations with few

distinguishable material characteristics. Based on the archeologically-derived occupation dates from Middle Village and the historically documented dates for Fort Astoria/George, the two sites, only eight miles apart, were occupied contemporaneously for approximately nine years from 1811 to 1820. While interaction between the inhabitants of the two sites is recorded historically, the level of material exchange is unknown. Middle Village, dating to the earliest phase of the fur trade on the Columbia River and presenting evidence of the earliest incorporation of Euroamerican-introduced mass-produced material culture into a Columbia River Native cultural system, provides a unique opportunity to increase knowledge of the little understood early contact period and to further document the Columbia River fur trade. The analysis presented in the next chapter aims to examine the Fort Astoria/George as a source of the early trade goods recovered from Middle Village to better understand the relationship between these two early fur trade period sites.

## CHAPTER 5: ANALYSIS

This thesis examines three classes of artifact recovered from archaeological investigations of the two earliest documented fur trade sites on the Lower Columbia River: the Lower Chinook's Middle Village and the PFC's Fort Astoria, later Fort George. This analysis will present a typological comparison of the fur trade goods recovered from the two sites intended to identify variation and similarities between the assemblages to examine Fort Astoria/George as a likely source trade goods found at Middle Village. This approach is based on the hypothesis that the strength of correlation between the two assemblages is indicative of a common source. The artifact classes included in this analysis are ceramics, glass trade beads, and nails. These artifact classes were represented in both the Middle Village and Fort Astoria/George assemblages and also have documented use as trade goods in the records of early traders and explorers in the region.

Aspects of this analysis are meant to shed light on socio-functional factors affecting the archaeological record. Traditional cultural practices and ideologies can affect the types of objects that made their way into the archaeological record and their use among the adopter culture. Objects are often redefined and used in ways not intended by their manufacturers or cultural of origin. Factors around this may be discerned from the archaeological record. Each class of artifacts in this analysis has a history of differing ethnic use and the context of recovery may be indicative of their origin: explicitly as trade goods or as personal good of Euroamerican traders. For example, beads generally appear in high numbers at fur trade sites and their popularity with Natives is noted in the historic record (Moulton 1990, 6:81) but glass beads were not as utilized by Euroamericans for personal use. They were generally supplied specifically for trade. Nails are more ambiguous. They had practical uses in Euroamerican contexts as did other metal objects among Native groups. The use of nails during early contact among the Lower Chinook appears to have been as objects of personal adornment based on the descriptions provided by early observers and due to that fact that traditional architecture was still in use at Middle Village during the period of focus (Jackman 1978, 16; Ross 1986, 107). Additionally, no signs of usewear have been detected on any nails recovered from Middle Village. Based on the small numbers of ceramics listed in fur trade records, they do not appear to have been supplied specifically as trade goods in the early fur

trade period but are present due to other factors, i.e. as the personal goods of traders. Focus on certain characteristics of artifacts during analysis, specifically on decorative type and vessel form of ceramic artifacts, is intended to illuminate patterns that may relate to Chinookan selection of objects reflecting pre-existing cultural practice and ideology. Others studying early ceramic adoption among Northwest Coast groups have identified patterns in the prevalence of certain vessel forms and decorative motifs that they have attributed to social over technological considerations (Cabak and Loring 2000; Maas 1990; Marshall and Maas 1997). Specifically, they have found hollowware vessels, teawares especially, in brightly painted motifs were selected by their Native adopters on the northern Northwest Coast for their utility in the maintenance of traditional cultural practices and identities relating to foodways and status displays relevant to the potlatch system. Although not a focus of the present study, it is assumed such socially-inspired choices were also at play in the consumer behavior of the Lower Chinook during their initial incorporation of Euroamerican-introduced material culture and can inform the interpretation of the archaeological record. Such considerations will be examined later in this thesis.

Analysis of technological attributes such as manufacture method, provide the basis for determinations of age and place of manufacture of recovered materials. As the artifact classes included here provide no apparent technological advantage to traditional Chinookan goods during their period of use at Middle Village, analysis of aesthetic factors, such as decorative attributes, are examined for their potential to illuminate Native selection factors in the early contact period.

As dateable stratigraphic deposits were lacking at the Fort Astoria/George site, production dates of the artifacts, and their periods of availability are used to establish a relative chronology. Due to the lack of clearly defined stratigraphic deposits relating to the amount of soil disturbance encountered in the excavated areas of Fort Astoria, modern objects were encountered in association with fur-trade period objects. As they are not relevant to the aims of this thesis, clearly modern objects, such as wire nails, electrical porcelain, and twentieth century tablewares, were excluded from this analysis. For Middle Village, the vertical distribution of artifacts (along with radiocarbon dates of deposits) was analyzed to determine artifacts recovered from early fur trade period deposits.

For ceramic artifacts, each sherd decorative type, vessel form, ware type (paste), and pattern name, when identifiable, were recorded. Identification of individual vessels was completed when possible. For glass beads, the primary level of analysis was manufacture method. Additional levels of analysis included bead structure, secondary modification, shape, measurement, diaphaneity, luster, and color. Nail and fastener analysis identified specimens as hand wrought, machine cut, indeterminate square, or cast. The type of metal was also identified. When possible, measurements of nail length and shaft diameter were collected. Production methods are generally analogous with production period although factors affecting this assertion will be discussed below. All data was added to a Microsoft Excel spreadsheet to facilitate data analysis via sort functions. Prior to describing the results of this analysis it is helpful to introduce readers to some general information on each of the included artifact classes in order to better understand the analysis.

### **Artifact Terminology, Manufacture, and Chronology**

This section introduces general information on the three artifact classes included in this study. This information will help orient the reader to terms used in the analysis and discussion. Also, information presented relating the age and manufacturing place of artifacts can indicate supply factors and which possible source brought the objects to the Lower Columbia River

#### **Ceramics**

Ceramic technology emerged independently in many different societies and under varied conditions, serving myriad purposes in each specific cultural milieu. The invention of ceramic technologies influenced subsistence practices by facilitating food storage, processing, transport, and serving. New outlets were created for social interaction and symbolic expression through display, trade, and decoration of ceramic vessels (Hoopes and Barnett 1995, 3). Experimentation and innovation over time expanded the practical and decorative qualities of ceramics.

Ceramic artifacts serve as an important data source for archaeologists because of their tendency to preserve well in the archaeological record and the utility of changes in ceramic technology, vessel shape, and decoration over time as a dating tool. In historical archaeology, ceramics are often analyzed to make inferences about socio-historical conditions, such race

and class, and behavior, as well as object reuse and trade (Cromwell 2006a, 2006b, 2011; Majewski and O'Brien 1987; Miller 1980). It is postulated these conditions may also be highlighted in ceramic artifacts recovered from Native contexts where their symbology as status goods outweighed their functionality. When utilizing ceramic data recovered from an indigenous context certain considerations should be kept in mind. Many Native technologies were crafted of organic matter that does not survive well in the archaeological record; therefore, a preservation bias may be at play when examining an assemblage from a post-contact Native site. A preservation bias may certainly be displayed in the Middle Village assemblage given the early date. Some methods commonly used in the analysis of historic ceramic assemblages may not offer meaningful data when applied to a Native context. In the case of objects introduced into a cultural system other than that of their manufacture, the meaning and function of the objects may have been reinterpreted and repurposed by the recipient cultural group (Majewski and O'Brien 1987, 102).

All ceramics encountered in the present study were classified into three main categories based on the physical properties of the clay body and firing temperature. These categories are porcelain, refined white earthenware, and stoneware, and represent Chinese and Euroamerican, primarily English, ceramic wares that entered into the ca. 1780-1820 maritime fur trade in the Pacific Northwest. Surface decoration technique was used to further classify artifacts (Ibid.). The histories and attributes of the ceramic types analyzed for this study will be discussed below. This is not meant to be an exhaustive catalog of ceramic production during the period of focus but is meant to provide context for the object analyzed in this study. The dates given provide a range of manufacture and often a range of peak popularity and may not necessarily coincide with date of use.

### ***Porcelain***

A white, lightweight body is characteristic of porcelain. It displays a vitrified body resulting from a high firing temperature that causes its constituent materials to fuse together. For centuries, only the Chinese possessed the knowledge to produce porcelain (Schiffer et al. 1975, 7). The superior quality and characteristics of Chinese porcelain led to the emergence of a ceramic export market in the thirteenth century. Mass production for the Western export market began in the 1500s as the Spanish and Portuguese established maritime trade relations



with China (Rossabi 2014, 247). Western demand peaked from the seventeenth to the nineteenth centuries. Chinese export porcelain is the term applied to wares made expressly for the export market.

The majority of mass-produced Chinese export porcelain was hand painted under the glaze in standard blue and white patterns. The Nanking (ca. 1780-1820) group of patterns consists of a large center panel depicting a generalized Chinese landscape of houses, river, and bridges with a square-cell diaper border design with daggers or spearheads below (Nilson 2012). *Canton* (ca. 1820-1880) is lesser-quality variation of the generalized blue and white Chinese landscape seen in Nanking wares. The quality of the painted decoration and the porcelain body are reduced. One of two border variations is used: the earlier rain and cloud border or the later straight-line border (Noel-Hume 1969, 262; Schiffer et al. 1975, 20).

Imitative soft-paste porcelains have been produced in Europe since the sixteenth century. Substances such as glass and bone (hence the British-made *bone china*) were added to clay in attempts to replicate the hard, translucent body of true porcelain. These efforts resulted in body with a softer, more granular paste than that it tried to emulate. British manufacture of soft-paste porcelain began in the late eighteenth century and continues today (Godden 1990, 17; Majewski and O'Brien 1987, 115). Distinguishing a source of soft-paste porcelains from the late eighteenth and nineteenth century is problematic as a number of European and Asian nations were manufacturing such wares with few distinguishable characteristics (Majewski and O'Brien 1987, 127). British soft-paste porcelains were not exported in large numbers to the United States prior to the mid-nineteenth century and are therefore rare (Miller 1991, 11). Undecorated nineteenth century soft-paste porcelain tablewares are uncommon. Prior to ca. 1880, overglaze decoration was the most common decorative method on European porcelain. Overglaze decoration in combination with gilded or embossed designs became common after 1880 including overglaze hand painted Japanese porcelains made for the American market (Majewski and O'Brien 1987, 129). Underglaze decoration is generally only seen in blue.

### ***Refined White Earthenware***

British potters developed a refined white earthenware ceramic body in the eighteenth century to compete with increasingly popular Chinese porcelains (University of Utah 2012).

Manufactures of the period continually experimented with pastes and glazes aiming to produce an ever whiter-bodied ceramic. The results are a succession of refined earthenware products, often displaying only minimal change from the preceding waretype. Potteries in the English county of Staffordshire were the chief originators in the development of refined earthenwares and principle among them was the pottery of Josiah Spode (b. 1733, d. 1797) (Sussman 1979, 8). Staffordshire wares dominated the ceramic tableware market from the late-1700s through approximately 1880 (Majewski and O'Brien 1987). American production did not expand until post-Civil War.

More of a continuum than distinct phases, the progression of the English refined earthenware tradition nevertheless contains distinct waretypes that are commonly described by archaeologists and should be included here. At the beginning is *creamware*, a cream- or pale yellow-colored, earthenware body with a yellowish glaze, by the mid-eighteenth century. Creamware was the most common earthenware between 1770 and 1830 and dominated the British, European, and American consumer markets for nearly a century (Godden 1963, 111; Godden 1990, 14; Majewski and O'Brien 1987). Creamwares are often undecorated. The next phase in the refined earthenware tradition, *pearlware*, came about in the late 1770s (Godden 1990, 139). Pearlware marks a popular transition to decorated wares that persisted into the mid-nineteenth century (Miller 1980, 16). A nearly completely white refined earthenware body was achieved in the nineteenth century; it was known as *whiteware*. Because the production of whiteware was a gradual evolution from pearlware, according to Miller (1980, 2), it does not have an introduction date, but it was in development by the 1820s. It was almost always decorated (Majewski and O'Brien 1987). The popularity of semi-vitreous *ironstone* (ca. 1840) post-dates the period of interest for this study (Sutton and Arkush 2009, 214). Ironstone tends to be thicker bodied than whiteware and is characteristically undecorated beyond molded or embossed rims. The succession of refined earthenware bodies is very similar to one another and thus decorative type can be a more useful identification and dating tool.

### ***Refined White Earthenware Decorative Techniques and Styles***

As mentioned above, archaeologists have traditionally used the terms creamware, pearlware, whiteware, and ironstone to describe refined earthenware vessels. This study will take the

approach of classifying refined earthenwares by decorative type. As suggested by Miller (1980, 1991) this approach has two advantages: 1) it allows for the integration of historic and archaeological data through use of common terminology, and 2) differences in glaze and paste of ware types of the period are largely indistinguishable (Miller 1980, 2). Due to lack of standard definitions, criteria, and the continuum of changes rather than distinct “leaps” forward in paste, sorting sherds into ware types is problematic. Ware-based sorting forces an archaeologist construct on to the materials that has little to do with the historic context in which the objects should be viewed (Majewski and O’Brien 1987, 99). Stylistic and technological changes such as decorative patterns and pigments used are useful dating tools. As glazes and pigments that could withstand the high kiln temperatures were developed, colors available for underglaze decoration expanded from blue to include other colors such as green, yellow red, and black (Ibid., 139). Analysis of historic ceramics often focuses on vessel form as a key to the function the object once served (Sutton and Arkush 2009, 205). Such functional categories may not apply in Native contexts where goods were often used in ways reimagined to fit the new cultural setting. Decorative type may serve as more meaningful level of analysis in such contexts. The following provides descriptions and dates associated with decorative styles encountered in this study.

### *Edgeware*

Vessels displaying a relief-molded motif along the rim edge are referred to as edgewares. Produced between ca. 1770 and late-nineteenth century, they are characterized by molded rims. The most common forms are flatwares and serving pieces (Miller 1991, 6). Several patterns exist that are collectively referred to as edgewares. Two types of edge ware that were analyzed for this study, featheredge and shelledge, appear as ruffles or variations of closely-spaced vertical lines often painted under the glaze in blue or green. They most often appear on creamware and pearlware. These are of the earliest edgeware tradition and were produced from ca.1775 to the mid-1800s (Samford 2016). Later edgeware designs on whiteware bodies were in use during the mid-nineteenth century (Brown 1982, 19).

***Dipped or slip ware:*** The process of dipping a ceramic object into a vat of refined clay slip gives this decorative type it’s a name. Dipped wares were produced between the 1770s and the end of the nineteenth century and are largely limited to inexpensive

utilitarian hollowware vessels, commonly mugs, bowls, and pitchers (Miller 1991, 7; Samford 2016). An initial all-over slip, most often in white or cream, could be followed by the removal of slip or the applications of additional colored slips by various methods to produce various effects (Godden 1975, 17). The addition of embossed or incised decoration before slip application is common. Specific types of dipped ware encountered in this study will be discussed below.

***Banded (or annular) ware:*** Horizontal bands of colored slip of varying width were applied via brush or blow bottle to create banded ware (Samford 2016). These wares were popular between ca.1790 and 1820 but produced into the 1850s. Color bands in brighter colors, such as yellow, appear on earlier examples while on later examples, the bands are usually duller colors such as blues and gray post-1840 (Godden 1963, 108; 1990, 128; Miller 1991, 6; Samford 2016).

***Dipped fan:*** This motif featured a series of multi-colored fan-like medallions around a ceramic vessel created by dipping the vessels into a divided container containing different colored slips. Returning the vessel to an upright position caused the slips to run together. Dipped fan designs were produced ca. 1805-1840 (Samford 2016).

#### ***Painted ware (including cottageware as per Ross 1976)***

These include both overglaze and underglaze hand painted decorations, most often floral and annular designs. Geometric, *Chinoserie*, and stylized landscapes also occur. Painted wares occur predominantly as teawares and were popular from the 1720s to the 1840s (Samford 2016). Overglaze decoration occurred early on. Through the 1830s, cobalt blue pigment was popular while after that time polychrome colors came into fashion. Sprig painted wares (very small floral painted patterns) began showing up around 1835 and remained common until the 1870s and possibly later. Hand painting occurs on creamware, pearlware, and whiteware.

#### ***Transfer print***

Consumer demand for less expensive blue and white porcelains led to the development of the transfer printing process as a low-cost method to decorate large numbers of mass-produced wares in the late-1700s (Godden 1992, 50; Wood 1959, 4). Common on pearlware and

whiteware, transfer printing sometimes occurs on porcelains as well. Transfer printing remained popular until the mid-nineteenth century.

The method involves a process by which a design is transferred from a single master engraving onto a large number of ceramic vessels (Sussman 1979, 10). Overglaze transfer prints do occur but underglaze printing is most common (Godden 1990, 180; Godden 1995, 228; Samford 1975, 1). Initially, only black pigment was used but underglaze printing in blue was developed at the end of the eighteenth century and became the most popular color throughout the nineteenth century (Godden 1963, 11; Wood 1959, 21). Other colors were introduced after 1820 (Noel-Hume 1969, 128-129). Early designs copied Chinese export porcelain, reflecting consumer desire (Ibid., 128-129). Later, popular motifs included floral and geometric designs and landscapes, as well as classical and natural scenes (Samford 1997). *Flow wares*, where pigments beyond the pattern lines, were mainly manufactured in the mid-nineteenth century (Samford 2002). Hundreds of patterns were produced, but most patterns did not have a long period of popularity or a wide production. After 1830, patterns were widely produced by multiple potteries. As a result, distinguishing manufacturers is difficult.

### ***Redware***

Generally low-fired with a reddish earthenware paste, redware frequently appears in thick-bodied utilitarian forms. Commonly an all-over glaze is applied. Often clear lead glazes, iron oxide glazes that produced brown or black shades, or manganese-lead glazes that created a speckled brown effect were used. Lead glazed earthenwares have been produced since the sixteenth century in Britain and early in continental Europe. Redwares tend to be locally manufactured; utilitarian wares and European immigrants began to produce them in newly settled areas of North America. As redwares vary little over time and space, dating and sourcing is difficult (Brown 1982, 21).

### ***Stoneware***

Stoneware is a dense, thick-walled, durable semi-vitreous ware that is commonly used for utilitarian purposes such as food storage (Godden 1990, 173). Glaze is applied to both interior and exterior of a stoneware vessel to enhance its resistance to liquid. This is often salt glaze.

Paste can vary in color from gray, to tan, to red, to bluish, depending on the clay used. While China has produced stoneware since pre-historic times, it was not made in Europe until the thirteenth century and not in Britain until the sixteenth century (Sutton and Arkush 2006, 214). Stoneware has undergone few technological or stylistic changes over time that aid in dating, but there are some distinctive differences between Chinese-made stonewares and those made elsewhere.

### *Chinese Brown Glaze Stoneware*

Characterized by a coarse, gritty paste buff or gray in color, Chinese brown glaze stoneware was used for utilitarian food storage and shipping jars. Vessels are found in a variety of shapes, sizes, and glazes, all of which can be indicative of a vessel's original contents. For example, wide-mouth vessels likely contained preserved vegetables or ginger and spouted vessels contained liquids such as soy sauce or vinegar (Wegars 1991, 470-480). Salt glazes in shades of brown, and fine-grained slip glazes ranging in color from reddish to brown to nearly black, were used. A nearly black glaze displaying a metallic iridescence is known as "tiger" glaze (Sutton and Arkush 2006, 216). These food storage vessels, known as Chinese brown glaze stoneware, were produced beginning in the 1400s with little recognizable stylistic or technical change (Choy 2014, 11).

### *Non-Chinese Stoneware*

Continental European producers and British potters began to manufacture table and utilitarian stoneware vessels in the early 1670s (Noel-Hume 1969, 112). American production of stoneware had begun in the early eighteenth century, although in limited quantity. Most vessels were salt glazed, although some were covered in lead slip glaze (Godden 1975, 53-54).

Brown salt-glazed stoneware, commonly in the form of mugs and jugs, were primarily made from 1690 to 1810 (Sutton and Arkush 2006, 216). Utilitarian salt-glazed stoneware was introduced ca. 1710 to 1720 (Godden 1975, 71). Production of stoneware tablewares with a white paste and white salt-glaze were in the early eighteenth century in an effort to copy Chinese porcelains. These wares remained popular until the early nineteenth century (Sutton

and Arkush 2006, 216). A few common glazes provide help date a vessel. Albany Slip is a dark brown to greenish-black clay slip used ca. 1800-1900. While usually applied to the interior surface of salt glaze vessels, it is also found on vessel exteriors (Ibid., 216). Bristol Glaze is a glassy, creamy glaze found on stoneware produced from ca. 1835 to 1900. Sometimes iron is added to create a brown color. A half brown/half cream color scheme is common on cylindrical vessels, especially ale bottles (Ibid.). Molded designs and enamel colors were also used in historic European stoneware.

### **Glass Beads**

Beads crafted from materials such as shell, bone, and stone have been recovered from archaeological deposits relating to modern humans at least since the Middle Paleolithic (Bar-Yosef Mayer and Porat 2008; Van der Sleen 1973, 55). The earliest documented glass bead manufacture dates back at least 3000 years in the Near East (Dubin 1987). Many manufacturing methods were used historically but in assemblages dating to the North American fur trade, two methods predominate: drawn and wound beads. These production methods are described below. Venice, Bohemia, and The Netherlands were the largest producers of glass beads during the late eighteenth and early nineteenth centuries and supplied the bulk of beads to fur traders. Smaller producers including Germany, France, England and China also contributed (Karklins 1982, 114). Many historical observers recorded a strong preference for blue glass beads as a trade item (Jackman 1978, 16; Moulton 1990, 6:81; Ross [1904] 1986, 107). Chinookan use of glass trade beads as status goods and their inclusion in burials can further complicate dating as factors such as curation can come into play. Some beads were likely introduced to Chinookan peoples prior to direct Euroamerican contact through inter-tribal trade with other Native groups. The Lewis and Clark Expedition also supplied beads to the Native peoples along the Columbia. These considerations can be especially pertinent when dealing with beads that occur in small numbers within an assemblage.

*Wound beads* are produced by melting the end of a glass rod and winding the molten glass around a copper wire (Karklins 1982, 96-97; Van der Sleen 1973, 23). A wide variety of bead shapes and sizes can be produced via this method. *Drawn beads* are made when molten glass is drawn into a tube forming a long bead blank from which individual beads are cut from the

cooled bead blank. The structural categories described include *simple* (single layer of glass), *compound* (two or more layers of glass), *complex* (simple bead with added decoration), and *composite* (compound bead with added decoration). Post-manufacture secondary modifications include *hot tumbled* and *faceted* beads. To remove sharp ends, drawn beads are commonly *hot tumbled* placing beads into a rotating, heated barrel that smoothes and polishes the beads (Karklins 1982, 88-89; Van der Sleen 1973, 25). Faceted beads are achieved through a mold, by holding the bead to a rotating abrasive wheel and grinding multiple facets into the surface, or cutting facets into the bead by hand.

## **Nails**

The popularity of nails and tacks among Native populations is well noted by traders and they are ubiquitous on trader's inventory lists. Functional uses of metal fasteners are evident, while their symbolic value among Native groups is described by early traders and explorers and indicated through their inclusion as burial goods in high-status burials (Jackman 1978, 16; Roe 1966; Ross [1904] 1986, 107). Native-produced copper ornaments from the northern Northwest were pre-contact status goods and subject to intertribal trade (Acheson 2003).

Nail shape descriptions are based on intended function. While the established terminology will be used for descriptive purposes in this analysis, it should be noted that this does not necessarily have much bearing in early contact Native contexts where nails appear to have been valued for their aesthetic rather than functional value. Tacks and brads are two specialized nail styles encountered in this study. A tack is a small nail with short shaft ending in a point and a broad head and meant for upholstery. A brad is a nail with an asymmetrical head producing an "L"-shaped nail used in trim and flooring. All nails were made individually, either wrought from a rod or cut from a plate, until the late eighteenth century when a method for mass-producing machine cut nails was developed (Adams 2002, 7). Due to the nature of their manufacture, wrought nails are less standardized in size and shape compared to cut nails. Early machine cut nails were headed by hand. A widely accepted date for the introduction of fully machine cut nails is ca. 1815 (Noel-Hume 1970, 253). American common machine cut nails, ca. late 1830s to present, are identified based on uniform, flat rectangular head shape (Wells 1998). Because of manufacturing issues, the British relied on wrought nails for a longer period than the United States: into the mid-1800s and beyond



(Adams 2002, 70). This later transition may account for the persistence wrought nails on archaeological sites with access to both American and British nail suppliers. Wrought nails could also be produced on site (be it fort or ship) in settings where supply difficulties or expedience were factors. The final phase, which occurs outside of the timeframe of this study, is the introduction of wire nails in the mid-nineteenth century.

Three metal types were encountered among the analyzed nails. Ferrous nails include those made of metal contain ironing and are generally susceptible to rust. The other two metals, brass and copper, are less likely to rust. Ferrous metals are the most commonly produced historically and today.

Nails are commonly classified by their penny (d) weight, a system attributed to late fifteenth century England, when nails were sold by the hundred, e.g. 8d (pence) per 100 nails. This system probably originated with a weight scale per 100 nails, but soon switched to denote the length of a nail (Wilson et al. 2011, 93).

### **Ceramic Analysis Methods**

For each ceramic sherd, ware type (paste), decorative type, vessel form, and maximum sherd dimension were recorded. Pattern name is provided when identifiable. Both sherd counts and identification of Minimum Number of Vessels (MNV) were undertaken. Calculation of MNV was accomplished through crossmending sherds and/or based on shared sherd attributes, including decorative patterns, paste, and vessel form (Voss and Allen 2010). When present, maker's or manufacturer's marks on the base on vessels were identified.

Sherd counts are useful as basic level of ceramic analysis for enumerating and characterizing an assemblage. A MNV count is more relevant from a functional interpretive perspective (Sussman 2000). For these reasons, both data types are included here. Presentation of analysis results will include sherd counts while discussion and interpretation will focus on MNV data. Both waretype and decorative type are also included in this analysis for specific reasons. While waretype has traditionally been the basis for ceramic analysis, the difficulty of distinguishing between ware types, specifically refined white earthenware can result in inconsistency among analyses. It is also a forced distinction that is not fitting of the manufacturers classifications that were based on decorative types (Majewski and O'Brien

1987, 102-107). Descriptions based on decorative type may help illuminate objects that were meant for trade. To avoid imposing a perceived function upon ceramics, especially those recovered from Native contexts, tablewares and utilitarian hollowware vessels were both described as use cannot be determined. The well-documented transfer print collection from Fort Vancouver National Historical Park (Hudson Bay Company's Fort Vancouver) facilitated identification of named transfer print (Ross 1976).

Many small ceramic sherds could not be assigned to a specific vessel form. These were recorded as unidentified, indeterminate hollowware, or indeterminate flatware vessels. Additionally, some sherds recorded as undecorated may account for undecorated portions of decorated vessels. Both these situations will affect the outcome of overall vessel form and decorative type counts.

### **Glass Bead Analysis Methods**

Observable diagnostic characteristics of each bead were recorded. Based on shared characteristics each bead was assigned to an identified descriptive type. The characteristics forming the typology include: manufacture method, structure, secondary modification, shape, measurements, luster, diaphaneity, and color. This typology including bead characteristics and the number of beads assigned to each type can be found in Appendix A. To facilitate integration of this analysis with previous analyses of portions of the Middle Village assemblage specifically, the analytical framework employed here follows DeCorse (2009). To facilitate comparison with well-documented HBC-sourced assemblages from Fort Vancouver National Historical Site reference is made to bead typologies identified for that collection (Cromwell et al. 2013; Ross 1990).

Two methods of manufacture are represented in the beads analyzed. Shape descriptions follow Ross (1990), spherical, barrel, oblate, cylindrical (short and long), and ellipsoidal. Maximum length and diameter measured in millimeters (mm) were taken. When heterogeneity exists within a type, a range including smallest and largest examples is given. Fragmentary specimens are indicated as indeterminate. Luster is described and dull or shiny. The ability of a bead to transmit light was recorded as diaphaneity and includes opaque, translucent, and transparent. Color descriptions follow the *Munsell Book of Colors*.

### **Nail Analysis Methods**

The method of nail manufacture, material, shape and size were used to classify nails. If not otherwise noted, all nails are ferrous metal. From Fort Astoria/George, wire nails, that date after the period of interest for this study, and nails that were too deteriorated or encrusted in rust to be excluded as wire nails were not included in this analysis. To facilitate future comparative study, reference to the established nail typology in place at Fort Vancouver National Historical Site (FOVA type) is made when applicable (Pierson 2006).

### **Results: Ceramic Analysis**

A total of 450 ceramic sherds were included in this analysis. From these, a MNV of 189 was calculated composed of seven ware types. These ware types display nine decorative styles. Among the 22 vessel forms identified are tablewares, utilitarian storage vessels, figural and decorative items. Results are presented below by each site separately. Discussion and interpretation of the comparative results will follow.

#### **Middle Village**

The ceramic assemblage from contact-period deposits at Middle Village consists of 244 sherds composed of five ware types. The most common ware type found in these deposits is British-manufactured refined white earthenware, numbering 180 sherds and accounting for 74% of all analyzed sherds. Among these, five decorative types are recognized. Chinese-manufactured brown glazed stonewares (7% of total sherds) and Chinese export porcelains (15%) of at least three distinct decorative types are present in the assemblage. Non-Chinese utilitarian stoneware vessels (4%) and soft-paste porcelains (<1%) also occurred in the assemblage. A minimum of 112 vessels was identified and of these 55 (46% of MNV) are hollowware vessels, of both tablewares and utilitarian forms. At least 18 distinct forms were identified. Flatwares account for 47 vessels (44% of MNV). Saucers account for the largest part of the identified flatwares forms; 65%. Taken together as teawares, these two forms account for 48% of the MNV calculated for the Middle Village ceramic assemblage. Of the RWE teawares, 45% are undecorated, 49% have hand painted decoration, and 3% each are transfer print and dipped wares. Table 5 includes vessel form, sherd count, and MNV for the assemblage by ware type and Table 6 shows vessel forms across all ware types.

Table 5. Middle Village ceramics by ware type. Percentages in **bold** apply to entire assemblage. Percentages in regular type face apply to ceramic type category.

CERAMIC TYPE	VESSEL FORM	SHERD COUNT	% SHERD TOTAL	MINIMUM # OF VESSELS	% VESSEL TOTAL
<b>Refined earthenware</b>		<b>180</b>	<b>74</b>	<b>64</b>	<b>57</b>
	Unid. flatware	23	13	5	8
	Plate	5	3	5	8
	Saucer	33	18	20	30
	Dish	1	<1	1	2
	Unid. hollowware	28	16	8	12
	Bowl	8	4	6	9
	Cup	30	17	11	16
	Mug	2	1	2	3
	Jug	3	2	1	2
	Creamer	1	<1	1	2
	Chamber pot	1	<1	1	2
	Pitcher	3	2	1	2
	Tea Canister	31	18	1	2
	Gorget	1	<1	1	2
	Unknown	10	6	-	-
<b>Chinese export porcelain</b>		<b>36</b>	<b>15</b>	<b>33</b>	<b>30</b>
	Unid. flatware	9	25	9	27
	Plate	3	8	2	6
	Saucer	7	19.5	5	15
	Unid. hollowware	4	11	4	12
	Bowl	1	3	1	3
	Cup	2	6	2	6
	Ginger Jar	3	8	3	9
	Unknown	7	19.5	7	21
<b>Soft-paste porcelain</b>		<b>2</b>	<b>&lt;1</b>	<b>2</b>	<b>2</b>
	Unid. hollowware	1	50	1	0.5
	Figural	1	50	1	0.5
<b>Stoneware, Chinese brown glazed</b>		<b>18</b>	<b>7</b>	<b>6</b>	<b>5</b>
	Unid. jar	4	22	2	32
	Globular jar	1	6	1	17
	Spouted or wide- mouth jar	7	39	2	32
	Straight-sided jar	6	33	1	17
<b>Stoneware, non-Chinese</b>		<b>9</b>	<b>4</b>	<b>7</b>	<b>6</b>
	Unid. hollowware	3	33	3	43
	Crock	5	56	3	43
	Unknown	1	11	1	14
<b>TOTAL</b>		<b>244</b>	<b>100</b>	<b>112</b>	<b>100</b>

Table 6. Middle Village, ceramic vessel forms, all ware types. Percentages in **bold** apply to entire assemblage. Percentages in regular type are of specific vessel form and second applied to entire assemblage.

<b>VESSEL FORM</b>	<b>SHERD COUNT</b>	<b>% ASSEMBLAGE/ % FORM</b>	<b>MNV</b>	<b>% ASSEMBLAGE/ % FORM</b>
<b>Flatware</b>	<b>81</b>	<b>33</b>	<b>47</b>	<b>42</b>
Unidentified flatware	32	13/40	14	13/30
Plate	8	3/10	7	6/15
Saucer	40	16/49	25	22/53
Other	1	<1/1	1	<1/2
<b>Hollowware</b>	<b>143</b>	<b>60</b>	<b>55</b>	<b>50</b>
Unidentified hollowware	35	16/25	15	14/27
Bowl	9	4/6	7	6/13
Cup	33	14/23	14	13/25
Other tablewares	40	17/28	6	5/11
Other utilitarian	26	9/18	13	12/24
<b>Unknown</b>	<b>18</b>	<b>7</b>	<b>8</b>	<b>7</b>
	18	3/100	8	9/100
<b>Other</b>	<b>2</b>	<b>&lt;1</b>	<b>2</b>	<b>1</b>
	2	<1/100	2	<1/100
<b>TOTAL</b>	<b>244</b>	<b>100</b>	<b>112</b>	<b>100</b>

### *Refined white earthenware (RWE)*

As stated above, 74% of all analyzed sherds are of refined white earthenware body. The MNV calculated for this ware type is 64 vessels. Identified hollowware forms account 42% of the vessel count and identified flatware vessels for 31%. A total of 61 sherds (34%) are classed as unidentified hollowware, unidentified flatware, or unknown. The majority of sherds (n=172, 70% of RWE sherds) appear to be cream-colored wares (creamware), the earliest of the Staffordshire-manufactured refined white earthenware tradition. Cups represent 38% of the identified hollowwares. Table 7 provides details on the RWE assemblage by decorative type and vessel form. Of note is the wide variety of hollowware vessel forms represented within the Middle Village assemblage. Below characteristics of each decorative type as represented within the Middle Village RWE assemblage will be presented.

Within the refined white earthenware ware type, 37.5% (n=91) of the sherds are undecorated and represent a minimum of 28 vessels, or 41% of total vessels). Over half of these vessels (n=14, 54%) are classified as flatwares and 12 (46%) are hollowwares. Except for one

indeterminate burned sherd, all undecorated sherds appear to be of a creamware body. The remainder of the RWE assemblage occurs in four decorative types.

Table 7. Middle Village, refined white earthenware decorative types. Percentages in **bold** apply to entire RWE assemblage. Percentages in regular type face apply to decorative type category.

DECORATIVE TYPE	VESSEL FORM	SHERD COUNT	% SHERD TOTAL	MNV	% VESSEL TOTAL
<b>Undecorated</b>		<b>91</b>	<b>51</b>	<b>26</b>	<b>41</b>
	Unid. flatware	17	19	2	8
	Plate	3	3.5	3	11
	Saucer	11	12	8	31
	Dish	1	1	1	4
	Unid. hollowware	23	25	4	15
	Bowl	3	3.5	1	4
	Cup	22	24	6	23
	Chamber pot	1	1	1	4
	Unknown	10	11	-	-
<b>Painted ware</b>		<b>79</b>	<b>44</b>	<b>30</b>	<b>47</b>
	Unid. flatware	5	6	2	6
	Saucer	21	27	11	40
	Unid. hollowware	4	5	3	10
	Bowl	5	6	5	16
	Cup	7	9	4	13
	Mug	1	1	1	3
	Jug	3	4	1	3
	Creamer	1	1	1	3
	Tea Canister	31	40	1	3
	Other	1	1	1	3
<b>Dipped ware</b>		<b>5</b>	<b>3</b>	<b>3</b>	<b>5</b>
	Cup	1	20	1	33.3
	Mug	1	20	1	33.3
	Pitcher	3	60	1	33.3
<b>Edgeware</b>		<b>1</b>	<b>&lt;1</b>	<b>1</b>	<b>1</b>
	Plate	1	100	1	100
<b>Transfer print</b>		<b>4</b>	<b>2</b>	<b>4</b>	<b>6</b>
	Unid. flatware	1	25	1	25
	Plate	1	25	1	25
	Unid. hollowware	1	25	1	25
	Saucer	1	25	1	25
<b>TOTAL</b>		<b>180</b>	<b>100</b>	<b>64</b>	<b>100</b>

Painted ware sherds total 79 and account for 44% of the RWE sherd assemblage. Thirty-one sherds from a single vessel, a lidded creamware vessel designed for storing tea, total 40% of the sherd count for the RWE assemblage. This tea canister displays a series of hand painted adjoining ovals, sprigs, and annular bands in olive brown. Other sherds depict polychrome flowers, vine, and sprig designs (Figure 14). A minimum of 30 individual painted ware vessels (47% of RWE vessels) was identified. The majority of the vessels represented are

hollowwares (n= 16, 53% of RWE vessel count), including five bowls (31% of hollowwares) (Table 6). Flatwares number 13, or 43% of the MNV for this decorative type. Of these 85% (n=11) are in the form of saucers. Half of the painted ware vessels can be classed as teawares for 50% of the painted ware vessels and 36% of the sherds.



Figure 14. Refined earthenware decorative types in Middle Village assemblage. Top left: hand painted gorget; top center: painted ware hollowwares; top right: dripped fan dipped ware mug; bottom left: painted ware tea canister; bottom right: dipped ware pitcher with impressed roulette design. Image source: Northwest Cultural Resource Institute.

Less numerous decorative types include dipped wares (3% of RWE sherds, three vessels), transfer prints (2% of sherds, four vessels), and edgewares (<1% of sherds, one vessel). Among the dipped ware vessels, is a pitcher with an impressed roulette band below the rim and brown, yellow, and cream slip design on the body included a central dripped fan design. A second dipped vessel, a mug, also displays a dripped fan design in similar colors (Figure 14). The four transfer print decorated sherds vessels include one plate, one unidentified flatware vessel, one saucer, and one unidentified hollowware vessel and represent 6% of total MNV for the collection. All decoration is in underglaze blue. Two of the transfer print vessels

are of pearlware body. No known patterns could be identified. The single edgeware vessel is a shell-edge plate with blue underglaze pigment at the rim on a pearlware body.

A unique object on a creamware body with a band of relief molded interlocking diamond design colored with yellow slip is of unknown function. Its complete shape is unknown but a perforation in one corner suggests it was meant to be hung in display. A previous interpretation of this object is a reproduction of a gorget, a medieval armor plate worn around the neck (Figure 14). Similar items may have been produced by Staffordshire potters as nineteenth century trade goods (Wilson et al. 2009, 318-319).

### *Chinese Export Porcelain (CEP)*

A total of 36 Chinese export porcelain sherds account for 15% of the total Middle Village sherd count. A MNV of 33 (30% of the total assemblage) was identified. Seven flatware vessels and six hollowware vessels make up the identified CEP vessels forms, accounting for 21% and 18% of the assemblage MNV, respectively, while half (50%) of the sherds could not be identified beyond the level of unidentified hollowware, unidentified flatware, or unknown form. Table 8 characterizes the CEP assemblage by decorative type and vessel form.

Nanking is the most-displayed decorative type, identified on 31% of the sherds and nine vessels. Over half (55%) of the sherds displaying Nanking design elements have been identified as from saucer sherds. Canton ware accounts for 16% of the CEP sherds from which five vessels were identified. Of the Canton vessels, 80% (n=4) are flatwares.

Figure 15 illustrates examples of both these patterns recovered from Middle Village. A single celadon bowl sherd with hand painted overglaze enamel floral elements was analyzed. For the remaining 50% of CEP sherds, decorative type could not be determined. Many of these likely belong to Nanking or Canton vessels but due to the small sherd size lacking any decoration or a small portion of undiagnostic underglaze blue elements. Of these sherds, 39% are from unidentified flatware vessels while for 33% form could not be determined. One flatware sherd displays a poorly executed scroll design element that could not be matched to a known pattern.



Table 8. Middle Village, Chinese export porcelain. Percentages in **bold** apply to entire CEP assemblage. Percentages in regular type face apply to decorative type category.

DECORATIVE TYPE	VESSEL FORM	SHERD COUNT	% SHERD TOTAL	VESSEL COUNT	% VESSEL TOTAL
<b>Nanking</b>		<i>11</i>	<i>31</i>	<i>9</i>	<i>27</i>
	Unid. flatware	1	9	1	11
	Saucer	6	55	4	45
	Hollowware	2	18	2	22
	Cup	1	9	1	11
	Unknown	1	9	1	11
<b>Canton</b>		<i>6</i>	<i>16</i>	<i>5</i>	<i>15</i>
	Unid. flatware	1	17	1	20
	Plate	3	49	2	40
	Saucer	1	17	1	20
	Ginger jar	1	17	1	20
<b>Celadon, enameled</b>	Bowl	<i>1</i>	<i>3</i>	<i>1</i>	<i>3</i>
<b>Pattern unknown</b>		<i>18</i>	<i>50</i>	<i>18</i>	<i>55</i>
	Unid. flatware	7	39	7	40
	Unid. hollowware	2	11	2	11
	Cup	1	6	1	5
	Ginger Jar	2	11	2	11
	Unknown	6	33	6	33
<b>TOTAL</b>		<b>36</b>	<b>100</b>	<b>33</b>	<b>100</b>

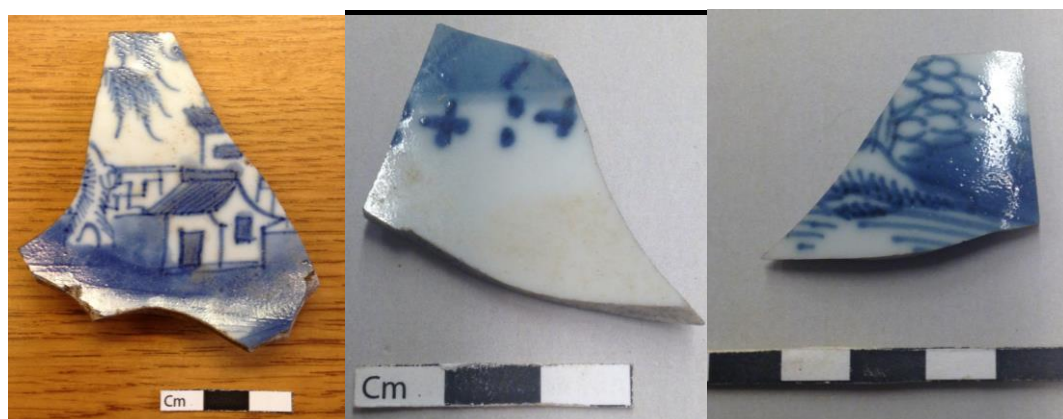


Figure 15. Chinese export porcelain sherds from Middle Village. Left to right: Canton plate, Nanking cup interior, and Nanking cup exterior.

### *Chinese brown glaze stoneware (CBGS)*

This ware type accounts for 7% of the total Middle Village sherd count and a minimum of six vessels (5% of assemblage MNV). Wide-mouth or spouted jars represent 39% of the sherd count and two of the vessels (34% of CBGS vessels). One of these sherds displays dark brown

iridescent “tiger” glaze on the exterior that is often described as a liquor bottle, but with an unglazed interior this example likely was not manufactured for the storage of liquids. Six sherds (33%) are believed to have belonged to a single straight-sided jar.

### *Non-Chinese stoneware*

A total of nine sherds (4% of assemblage sherd total) were identified as European or American-manufactured stonewares. All sherds likely represent utilitarian hollowware vessels. A MNV of 7 was calculated for this portion of the assemblage (6% of assemblage MNV). Four sherds (44%) are identified as belonging to crocks. Three sherds displaying a buff body and light brown salt glazed exterior were identified as comprising one crock. The unglazed interior displays finger-trailing.

### *Soft-paste porcelain*

The single tableware sherd is of an undecorated hollowware soft-paste porcelain vessel. A second, likely figural, white sherd is molded and displays three shallow flutes.

### **Fort Astoria/George**

A total of 206 ceramics sherds recovered from the 2012 Fort Astoria/George archaeological excavations were included in this analysis. Represented in this assemblage are seven ware types including the same range of ware types encountered at Middle Village: British refined white earthenware (64% of the total sherds), Chinese export porcelain (7%), soft-paste porcelain (11%), Chinese brown glaze stoneware (3%), non-Chinese stoneware (15%), with the addition of redware (<1%) and bisque-fired porcelain (1%). A minimum of 77 vessels was identified. British-manufactured refined white earthenware is the most abundant ware type based on both sherd (n=131, 64% of total) and vessel count (n=50, 65% of total). Five decorative types occur in RWE assemblage. Hollowware vessels account for 61% of the vessel forms and flatware vessels for 35%. There are 47 teaware sherds accounting for 23% of the sherd total and 33 vessels that can be classified as teaware. This equals 43% of the identified vessels. Of the Fort Astoria/George teawares, 73% occur on refined white earthenware body, 12% on Chinese export porcelain, and 15% on soft-paste porcelain. Table 9 includes vessel form, sherd count, and MNV for all ware types and Table 10. Clearly

modern objects, such as electrical porcelain and twentieth century tablewares, were excluded from this analysis.

Table 9. Fort Astoria/George, ceramics by ware type. Percentages in **bold** apply to entire assemblage. Percentages in regular type face apply to ceramic type category.

CERAMIC TYPE	VESSEL FORM	SHERD COUNT	% SHERD TOTAL	MNV	% VESSEL TOTAL
<b>Refined earthenware</b>		<b>131</b>	<b>64</b>	<b>50</b>	<b>65</b>
	Unid. flatware	32	24	7	14
	Plate	6	5	3	6
	Saucer	11	8	8	16
	Soup plate	1	1	1	2
	Platter	1	1	1	2
	Unid. hollowware	37	28	12	24
	Cup	24	18	16	32
	Creamer	1	1	1	2
	Unknown	18	14	1	2
<b>Chinese export porcelain</b>		<b>14</b>	<b>7</b>	<b>7</b>	<b>9</b>
	Plate	1	7	1	14
	Saucer	2	14	2	29
	Unid. hollowware	5	36	1	14
	Cup	2	14	2	29
	Bowl	1	7	1	14
	Unknown	3	22	-	-
<b>Soft-paste porcelain</b>		<b>22</b>	<b>11</b>	<b>8</b>	<b>9</b>
	Unid. flatware	6	27	-	-
	Saucer	4	18	3	38
	Unid. hollowware	8	37	1	12
	Cup	2	9	2	25
	Unknown	2	9	2	25
<b>Bisque-fired porcelain</b>	Doll parts	<b>3</b>	<b>1</b>	<b>1</b>	<b>1</b>
<b>Chinese brown-glazed stoneware</b>		<b>4</b>	<b>2</b>	<b>3</b>	<b>4</b>
	Unid. jar	2	50	2	67
	Wide-mouth or spouted jar	2	50	1	33
<b>Stoneware, non-Chinese</b>		<b>31</b>	<b>15</b>	<b>7</b>	<b>9</b>
	Unid. hollowware	2	6.5	1	14
	Bottle	1	3	1	14
	Crock	25	81	5	72
	Lid	2	6.5	-	-
	Unknown	1	3	-	-
<b>Redware</b>	Unid. hollowware	<b>1</b>	<b>&lt;1</b>	<b>1</b>	<b>1</b>
<b>TOTAL</b>		<b>206</b>	<b>100</b>	<b>77</b>	<b>100</b>

Table 10. Fort Astoria/George, ceramic vessel forms, all ware types. Percentages in **bold** apply to entire assemblage. Percentages in regular type are of specific vessel form and second applied to entire assemblage.

<b>VESSEL FORM</b>	<b>SHERD COUNT</b>	<b>% ASSEMBLAGE/ % FORM</b>	<b>MNV</b>	<b>% ASSEMBLAGE/ % FORM</b>
<b>Flatware</b>	<b>65</b>	<b>31</b>	<b>27</b>	<b>35</b>
Unidentified flatware	39	60/19	7	9/26
Plate	7	11/3	4	5/15
Saucer	17	26/8	14	18/52
Other	2	3/<1	2	3/7
<b>Hollowware</b>	<b>115</b>	<b>56</b>	<b>47</b>	<b>61</b>
Unidentified hollowware	53	46/26	16	21/34
Cup	28	24/14	20	26/42
Bowl	1	1/<1	1	1/2
Crock	25	22/12	5	7/11
Other, tableware	1	1/<1	1	1/2
Other, utilitarian	7	6/3	4	5/9
<b>Other</b>	<b>4</b>	<b>2</b>	<b>1</b>	<b>1</b>
	4	2/100	1	1/100
<b>Unknown</b>	<b>22</b>	<b>11</b>	<b>2</b>	<b>2</b>
	22	11/100	2	3/100
<b>TOTAL</b>	<b>206</b>	<b>100</b>	<b>77</b>	<b>100</b>

### *Refined white earthenware (RWE)*

A total of 50 vessels and five decorative types are present among the refined white earthenware (Table 11). Among these are 17 hollowware vessels (22% of assemblage MNV) and 13 flatware vessels (17%) of identified forms. A total of 87 sherds (66% of RWE assemblage) could not be classified beyond unidentified flatware, unidentified hollowware, or unknown form.

Undecorated sherds account for 38% (n=50) of the RWE sherds and represent five vessels (10% of RWE MNV). Of the undecorated RWE vessels, 80% (n=4) are from flatware vessels. One cup was identified from a single undecorated sherd. Thirty-seven of the sherds (74% of RWE sherds) appear to be whiteware bodies and the remaining 26% of sherds appear to be cream-colored wares.

Two vessels were identified as edgewares from six sherds, accounting for 5% of the RWE sherds. A single gothic molded rim sherd belongs to a hollowware vessel. Five sherds were identified as belonging to a single scalloped-rim flatware vessel with no additional decoration.

Table 11. Fort Astoria/George refined white earthenware decorative types. Percentages in **bold** apply to entire RWE assemblage. Percentages in regular type face apply to decorative type category.

DECORATIVE TYPE	VESSEL FORM	SHERD COUNT	% SHERD TOTAL	MVV	% VESSEL TOTAL
<b>Undecorated</b>		<b>50</b>	<b>38</b>	<b>5</b>	<b>10</b>
	Unid. flatware	13	26	1	20
	Plate	2	4	-	-
	Saucer	5	10	2	40
	Soup plate	1	2	1	20
	Unid. hollowware	17	34	-	-
	Cup	1	2	1	20
	Unknown	11	22	-	-
<b>Dipped ware</b>		<b>3</b>	<b>2</b>	<b>3</b>	<b>6</b>
	Unid. hollowware	2	67	2	67
	Cup	1	33	1	33
<b>Painted ware</b>		<b>8</b>	<b>6</b>	<b>2</b>	<b>4</b>
	Unid. hollowware	2	25	1	50
	Cup	6	75	1	50
<b>Edgeware</b>		<b>6</b>	<b>5</b>	<b>2</b>	<b>4</b>
	Unid. flatware	5	83	1	50
	Unid. hollowware	1	17	1	50
<b>Transfer print</b>		<b>64</b>	<b>49</b>	<b>38</b>	<b>76</b>
	Saucer	12	18	6	16
	Cup	16	25	13	34
	Unid. hollowware	15	23	8	21
	Unid. flatware	14	22	5	13
	Plate	4	6	3	7
	Platter	1	2	1	3
	Creamer	1	2	1	3
	Unknown	1	2	1	3
<b>TOTAL</b>		<b>131</b>	<b>100</b>	<b>50</b>	<b>100</b>

Painted ware accounts for 6% of the RWE sherds total. Two individual painted ware vessels were identified. Seventy-five percent of the sherds belong to a single vessel: a cup with a hand painted underglaze polychrome motif of light green leaves, green stems, and blue flowers (Figure 16). The second vessel is represented by two hollowware sherds decorated displaying hand painted underglaze green leaves.

Three dipped ware sherds (2% of RWE sherds), each representing a separate vessel, were analyzed. Two are hollowware vessels with a hand painted underglaze brown annular line at the exterior rim. These could not be determined with certainty to represent one vessel. The second vessel is a cup with one hand painted underglaze brown annular band at rim, both exterior and interior.

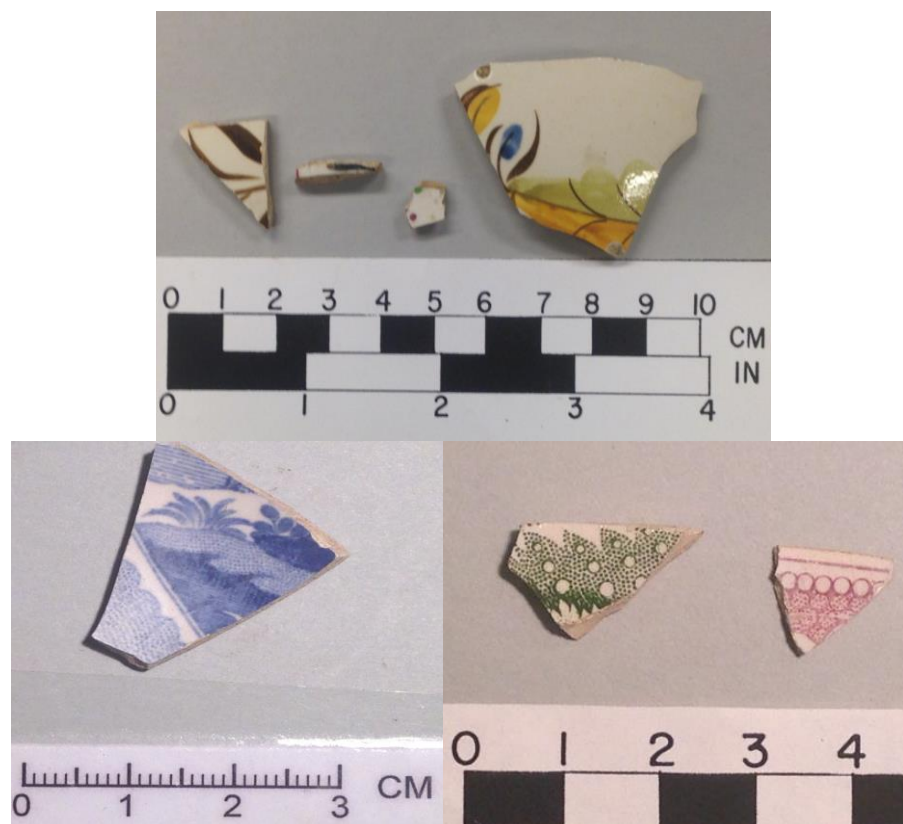


Figure 16. Refined earthenware decorative types in Fort Astoria/George assemblage. Top: Painted ware sherds. Bottom left: *Italian* pattern transfer print cup. Bottom right: *Lily* pattern transfer print saucer in green and hollowware sherd in red.

Transfer printed wares are the most numerous decorative type in the Fort Astoria/George assemblage. Slightly less than half the RWE sherds ( $n = 64$ , 49%) and vessels ( $n=38$ , 48%) display transfer print designs. Of the sherds for which general vessel form could be discerned, 32 (50%) are from hollowware vessels and 25 (39%) are from flatware vessels. Of the transfer prints, teaware sherds number 22 (34%) and vessels equal 19 (50% of transfer print vessels). Nineteen of RWE teawares vessels (83%) are transfer print decorated. This accounts for 50% of all transfer print vessels.

Multiple colors occur within the transfer prints. Blue appears on 24 vessels (63% of transfer print vessels), mulberry on six vessels (16%), brown on three vessels (8%), and green, reddish-brown, and red on one vessel each (3% each) (Figure 16). Patterns were identified for 19 vessels (Table 12) based on the well-documented transfer print collection from the HBC's Fort Vancouver (Ross 1976) and Sussman (1979). Unidentified patterns include elements

scenic garden views, exotic landscapes and botanicals. One flow blue flatware sherd was analyzed.

Table 12. Fort Astoria/George identified transfer print patterns and dates of production (Ross 1976; Sussman (1979).

<b>PATTERN NAME</b>	<b>MANUFACTURER</b>	<b>PRODUCTION DATES</b>
Peacock	Thomas Dimock	ca. 1829-1850
Lily	Copeland and Garrett	ca. 1837-19 <sup>th</sup> c.
British Flowers	Copeland and Garrett, Spode	ca. 1829-1974
Italian	Copeland and Garrett	ca. 1816-present
Damascus	William Adams and Sons	ca. 1820-1840
Portland Vase	Copeland and Garrett	ca. 1831- post-1833
Cyrene	William Adams and Sons	ca. 1840-1855
Aesop's Fables	Copeland and Garrett	ca. 1830-post-1879
Geranium	Copeland and Garrett	ca. 1818-20 <sup>th</sup> c.
Milkmaid	Copeland and Garrett	ca. 1819-20 <sup>th</sup> c.
Antique Vase	Copeland and Garrett	pre-1847-20 <sup>th</sup> c.
Waterloo	Spode, Copeland & Garrett	ca. 1820-?
Tyrolean	William Ridgway and Co.	ca. 1834-1854

### ***Chinese Export Porcelain (CEP)***

Seven vessels (9% of total vessel count) and at least four decorative types are exemplified by the 14 sherds (7% of total sherd count) of Chinese export porcelain analyzed from Fort Astoria/George excavations (Table 13). Two flatware vessel forms were identified accounting for 43% of the MNV for this ware type. Hollowware vessels total four or 57% of the CEP vessel count.

All identified decoration is in the form of blue underglaze hand painting. Canton style decoration is displayed on three sherds (27% of CEP sherd total) representing three vessels: two cups and one saucer (43% of the CEP vessel count collectively). A minimum of one vessel (14% of CEP vessels), a saucer, was identified from three sherds with Nanking style decoration. Decorative type could not be determined for 46% of the sherds. The MNV corresponding to these sherds is three (43%): one bowl, one unidentified hollowware vessel and a heavy-bodied plate (4.75 mm thick). The bowl sherd is finely decorated and displays underglaze blue scrolls on exterior and on two annular bands below rim on the interior (Figure 17). The unidentified hollowware sherd has exterior decoration consisting of blue floral scroll

elements on the body and blue annular bands near base. The thinness of its body (2.6 mm) is also notable.

Table 13. Fort Astoria/George, Chinese export porcelain. Percentages in **bold** apply to entire CEP assemblage. Percentages in regular type face apply to decorative type category.

DECORATIVE TYPE	VESSEL FORM	SHERD COUNT	% SHERD TOTAL	VESSEL COUNT	% VESSEL TOTAL
<b>Nanking</b>		<b>3</b>	<b>27</b>	<b>1</b>	<b>14</b>
	Saucer		1	33	1
	Hollowware		2	66	-
<b>Canton</b>		<b>3</b>	<b>27</b>	<b>3</b>	<b>43</b>
	Cup		2	66	2
	Saucer		1	33	1
<b>Pattern unknown</b>		<b>5</b>	<b>46</b>	<b>3</b>	<b>43</b>
	Plate		1	20	1
	Unidentified hollowware		3	60	1
	Bowl		1	20	1
<b>TOTAL</b>		<b>11</b>	<b>100</b>	<b>7</b>	<b>100</b>



Figure 17. Chinese export porcelain bowl, Fort Astoria/George displaying an unidentified pattern.

### *Soft-paste porcelain*

A total of 22 white-bodied soft-paste porcelain sherds account for 11% of the Fort Astoria/George sherd count. A MNV of eight vessels was calculated for this ware type. Twenty sherds, or 91% of sherd total for this type, are described as undecorated white porcelain tablewares, with an MNV of six vessels (75% of type MNV). Saucers account for three vessels, or 38% of the MNV for this ware type. One saucer base has brown stamped



mark “CFH/GDM.” This mark was used by the Charles Field Haviland in 1882, dating the piece to later residential occupation of the site (Haviland Online 2015). Two sherds of undecorated white porcelain with a molded shape are likely figural in form.

Two sherds (9%) of soft-paste porcelains are decorated. One of these is a saucer rim with an overglaze hand painted decorated green leaf and a gilded annular band at the rim. One cup sherd displays a gilded annular band along rim and it appears there was once overglaze hand painted decoration on the body.

### ***Bisque-fired porcelain***

Three sherds belonging to a bisque-fired porcelain doll, two with impressed hair designs, account for 1% of the Fort Astoria/George sherd count.

### ***Chinese brown glazed stoneware (CBGS)***

Four CBGS sherds (4% of total sherd count) represent two vessels. Two sherds belong to one buff-bodied wide-mouth or spouted jar with iridescent dark brown slip on the exterior and an unglazed interior. The remaining two sherds are part of a second wide-mouth or spouted jar with a buff body and dark brown slip glaze interior and exterior.

### ***Non-Chinese stoneware***

All 31 sherds of European and/or American manufactured stoneware are from utilitarian hollowware vessels. These account for 15% of the Fort Astoria/George sherd count. Of the 10 vessels included in the MNV (9% of identified vessels) 72% consist of crocks. Bodies range from buff to gray with clear, gray, dark brown salt glazes and also clear slip glaze. One unglazed crock sherd has the word “Pottery” stamped into its base.

### ***Redware***

One red earthenware-bodied unidentified hollowware vessel was identified by a single sherd displaying exterior dark brown slip glaze.

### Results: Bead Analysis

A total of 533 glass beads were examined for this analysis. Across both assemblages, a total of 44 bead types were identified. Of these, four types (Types 1, 2, 3, and 6) were found in both the Middle Village and Fort Astoria/George assemblages. Table 14 details the bead types and their frequency in both assemblages. Four unique bead types without correlates in the Fort Vancouver or DeCorse typologies were identified.

Table 14. Bead types and frequencies, both sites.

<b>Bead Type</b>	<b># Fort Astoria/George</b>	<b>% Fort assemblage</b>	<b># Middle Village</b>	<b>% Middle Village assemblage</b>
Type 1	6	43	38	7
Type 2	1	7	2	0.4
Type 3	1	7	118	22.6
Type 6	3	22	234	45
Type 8	-	-	13	2.5
Type 9	-	-	5	1
Type 10	-	-	15	3
Type 12	-	-	13	2.5
Type 14	-	-	5	1
Type 16	-	-	9	2
Type 25	-	-	5	1
Other Types*	3	21	62	12
<b>TOTAL</b>	<b>14</b>	<b>100</b>	<b>519</b>	<b>100</b>

\*These occur in frequencies  $\leq 4$  beads.

#### Middle Village

From the 519 glass beads recovered from intact Middle Village deposits and included in this analysis, forty bead types were identified. Eleven beads could not be assigned to groups due to the lack of diagnostic features resulting from their fragmentary state and/or level of deterioration.

The most numerous Middle Village bead type is Type 6: glass, wound, simple, long to short cylindrical beads occurring in shiny translucent blue and ranging in length from 3.22-3.8 mm and in diameter from 3.6-4.2 mm. Simple, blue beads account for 82% (n=425) of total assemblage. The most common manufacture method among Middle Village beads is wound at

64% of the total assemblage. Drawn beads account for accounting for 34% of the assemblage. Manufacture method could not be determined 2% of the specimens. Focusing on structure, the assemblage consists of 96% simple, 1% compound, 2% complex, and 1% indeterminate glass beads. A large percentage of the assemblage has undergone hot tumbling (71%). Surface grinding appears on two specimens. Examining the assemblage by size reveals that 70% measure less than 5 mm in diameter. Specimens measuring between 5 and 10 mm in diameter account for 20%. Just 3% measure over 10 mm in diameter. Size could not be determined for 7%. Table 15 details the Middle Village beads by color and structure.

Table 15. Middle Village beads by color and structure.

	Wound, simple	Wound, compound	Wound, complex	Drawn, simple	Drawn, compound	Drawn, complex	Unk	TOTALS (%)
<b>Blue</b>	292	-	2	130	2	-	7	433 (84)
<b>White</b>	15	1	6	36	1	-	-	59 (11)
<b>Green</b>	8	-	-	-	-	-	-	8 (2)
<b>Red</b>	2	-	-	-	3	-	-	5 (1)
<b>Colorless</b>	-	-	-	3	-	-	-	3 (<1)
<b>Black</b>	1	-	-	-	-	-	-	1 (<1)
<b>Yellow</b>	5	-	-	-	-	-	-	5 (1)
<b>Unk</b>	1	-	-	1	-	-	3	5 (1)
<b>TOTALS (%)</b>	324 (62)	1(<1)	8 (2)	170 (32.6)	6 (1.2)	0	10 (2.2)	519 (100)

Blue is by far the most common color with over 433, or 83%, of the specimens occurring in various shades. Of the blue beads, 82% are simple, blue beads and of these 74% are less than 5 mm in diameter. Of the simple blue beads, 69% are wound and 31% are drawn. Additionally, three distinctive types of decorated blue glass beads were identified. Two examples of compound blue-on-blue hexagonal beads with ground facets and large perforations (Type 2) were analyzed (Figure 18). A fragment of a complex transparent blue wound bead displaying stripes of lighter shade of opaque blue (Type 37) was examined. The third decorated example is a blue wound bead fragment with opaque white floral decoration around bead's median (Type 13) (Figure 18).

Beads in shades of white comprise 11% of the Middle Village bead assemblage. Thirty-five of these are simple drawn beads (60%) and are almost exclusively belong to Type 10. Simple wound beads number 27%. Two fragments of white-on-white complex beads, one wound and

one drawn, were examined. Six decorated complex beads, all likely Venetian, account for 11% of the white beads. Of these, five display ‘eye’ designs in various colors (Type 38 and Type 39) (Figure 18), and one includes translucent red swirls within an opaque white body (Type 37). These likely date from the late eighteenth to the early nineteenth century.



Figure 18. Middle Village glass beads. Upper left: compound drawn bead with ground facets (Type 2); upper right: complex ellipsoidal wound bead (Type 13); bottom: complex wound bead with ‘eyes’ (Type 39).

The remaining 5% of Middle Village beads occur in a variety of colors. Shades of green were found on 8 wound beads ranging in diaphaneity from translucent to transparent. Opaque yellow is found on five spherical wound beads (Type 25). Shades of red occur on five beads and include three compound drawn beads (Types 22 and 23). Three beads are simple, drawn, and colorless (Type 5). One black and one tan simple wound bead were analyzed. Color could not be determined for five beads.

### **Fort Astoria/George**

A total of 14 glass beads were recovered from excavated Fort Astoria/George-related deposits and from these 7 types identified. Of the seven types, five occur as drawn beads and three as wound beads. Four of these types also appear in the Middle Village assemblage (Table 14)

and three are unique specimens with no correlates in the Middle Village or Fort Vancouver assemblages (DeCorse 2009, Ross 1990).

Simple, drawn, white cylindrical beads ranging in length from 1.14-2.14 mm and in diameter from 1.97-3.41 mm (Type 1) are the most frequently encountered and account for 43% of the assemblage. Drawn beads account for 64% of the analyzed specimens, and wound beads for 36%. All but two analyzed beads are simple in structure. Two compound faceted beads were encountered. Seven beads appear hot tumbled. Table 16 displays the Fort Astoria/George beads by color and structure.

Table 16. Fort Astoria/George beads by color and structure.

	Wound, simple	Wound, compound	Wound, complex	Drawn, simple	Drawn, compound	Drawn, complex	TOTALS (%)
<b>Blue</b>	4	-	-	1	1	-	6 (43)
<b>White</b>	1	-	-	6	-	-	7 (50)
<b>Green</b>	-	-	-	-	-	-	0
<b>Red</b>	-	-	-	-	-	-	0
<b>Colorless</b>	-	-	-	-	1	-	1 (7)
<b>Other</b>	-	-	-	-	-	-	0
<b>TOTALS (%)</b>	5 (36)	0	0	7 (50)	2 (14)	0	14 (100)

One of the compound beads is an opaque blue-on-blue surface-ground hexagonal bead that is 7.51 mm long and 9.31 mm in diameter (Type 2) (Figure 19). The other compound bead is a transparent colorless-on-opaque white hexagonal cut faceted bead measuring 4.93 mm in length and 4.8 mm in diameter (Type 44) (Figure 20). White is the most frequent color with 7 examples (50%), followed by 5 blue (36%), and two colorless beads (14%). Three bead types account for the white examples while blue color occurs across four types.



Figure 19. Compound drawn bead with ground facets (Type 2) from Fort Astoria/George.

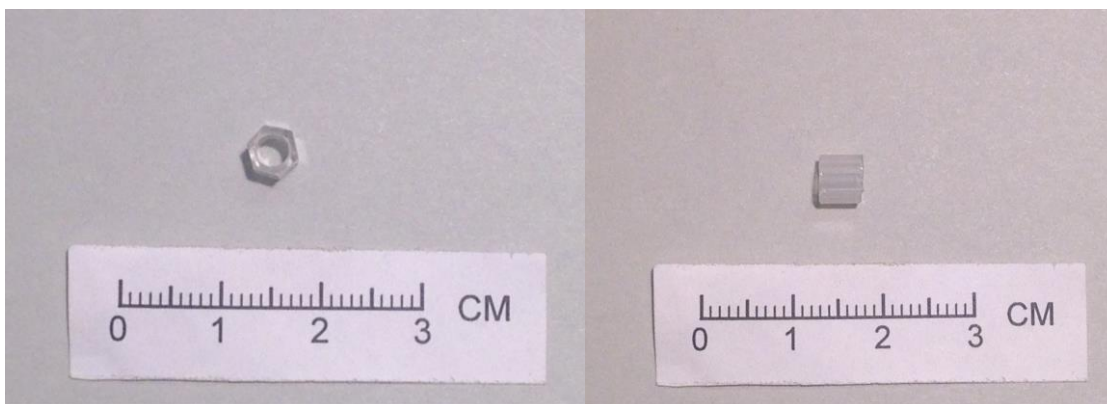


Figure 20. Compound drawn bead with cut facets (Type 44) from Fort Astoria/George.

### Results: Nail Analysis

A cumulative total of 664 nails are included in this analysis. Poor preservation limited the ability to make refined classification of many nails included in this study. The generic term ‘square nail’ was used when condition of the object limited the ability to determine if the nail was of cut or wrought manufacture. Seven distinct nail types were named and five of these occurred in both assemblages. Two types were present only at Fort Astoria/George.

#### Middle Village

Of a total of 201 nails recovered from contact-period deposits at Middle Village, 146 or 73% were classified as indeterminate ‘square’ nails. These nails could be either wrought or cut nails but more specific determinations of manufacture method could not be achieved due to their state of deterioration. The next most numerous nail type was cut nails (17 %) followed by cut brass tacks (5%), wrought nails (3%), cut ferrous tacks (2%), and a single cupreous

cast nail (<1%). All recovered nail types are listed with count and the percentage of total nail assemblage they account for in Table 17.

Table 17. Middle Village nails

<b>Nail type</b>	<b>Count</b>	<b>% of assemblage</b>
Square nail	146	73
Wrought nail	7	3
Cut nail	34	17
Cupreous cast nail	1	<1
Cut ferrous tack	4	2
Cut brass tack	9	5
<b>TOTALS</b>	<b>201</b>	<b>100</b>

### *Cut nails*

Thirty-four nails were determined to be of cut manufacture. Of these, six are complete. One is likely headed by hand. No specimens could be determined to be American or British-manufactured cut nails. Such determinations would have been useful in narrowing down the sources of the nails. Penny weight sizing was determined for six cut nails and all falling between 5d and 10d.

### *Cut Brass and Ferrous Tacks*

Nine well-preserved brass tacks consistent with furniture tacks were identified (FOVA type 92). Of these, seven have square shafts while one has a round shaft. All heads are smooth and domed varying in diameter from 8.35 to 10.83 mm. The single complete example measures 10.83 mm in length with a 10.5 mm diameter head and ends in a sharp point.

Four ferrous tacks with round shafts and heads were recovered. The one complete ferrous tack measures 16.61 mm in length.

### *Wrought nails*

Seven nails have been identified as hand wrought nails. The single complete example consists of a square stock with a shaft that tapers on all sides and a slightly conical head with irregular borders. The length is consistent with 6d nail size (FOVA Type 1032). The others are in various states of completeness, all displaying shafts that taper on all sides (Figure 21).



Figure 21. Ferrous wrought nail recovered from Middle Village.

### *Cupreous cast nail*

A well-preserved cast cupreous nail was recovered with twisted strands of cordage wrapped around the nail shank just below the head, likely as a means to wear the nail as a pendant (Figure 22). The nail's length (28.37 mm) is consistent with a 2d nail. The head of the nail is flat and ovoid. The square shank tapers to a blunt tip.



Figure 22. Cupreous cast nail pendant with cordage attached recovered from Middle Village.

### **Fort Astoria/George**

Nails represent the largest artifact class of the Fort Astoria/George assemblage. A total of 463 nails were included in this analysis. The majority of nails were in poor condition due to site preservation factors including the 1922 Astoria fire. Wire and nails of indeterminate manufacture method were excluded from this analysis. Of the nails discussed here, determination of manufacture method beyond indeterminate square nails could not be



determined for 90% due to their deteriorated state. The next most numerous nail type was cut nails (7.3%) with wrought nails (ferrous and cupreous), cupreous cast tacks, brass cut tacks, a cut brad, and a square finishing tack all accounting less than 1% of the collection, respectively. All recovered nail types are listed with count and the percentage of total nail assemblage they account for in Table 18.

Table 18. Fort Astoria/George nails types.

<b>Nail type</b>	<b>Count</b>	<b>% of assemblage</b>
Square nail	419	90.0
Wrought nail	2	0.43
Cut nail	34	7.3
Cupreous wrought nail	1	0.22
Cupreous cast nail	1	0.22
Cut ferrous tack	3	0.65
Cut brass tack	1	0.22
Cut brad	1	0.22
Cut finishing tack	1	0.22
<b>TOTAL</b>	<b>463</b>	<b>100</b>

### ***Cut nails***

Nails determined to be of cut manufacture numbered 34. Of these, four are complete and ranged in size from 6d to 16d. One complete cut nail is identified as an American machine-cut ‘common’ nail, similar to FOVA variety #2002. One is likely headed by hand. An additional two incomplete cut nails also appear to be this type. Seventeen of the incomplete cut nails head and shaft. Of these, 15 were determined to be modern common machine-cut American nails (FOVA variety # 2002). Two types of specialized cut nails were identified: one has a T-shaped flat head and one is a finish nail with an irregular rounded head.

### ***Wrought nails***

Two incomplete ferrous wrought nails were identified. Both display square shafts that taper on all sides and one ends in a pointed tip.

A single cupreous wrought nail with a square shaft and round, domed head was recovered from excavations in the fort park area (Figure 23). The nail is bent and measures approximately 30 mm in length, corresponding to a 2d penny size.



Figure 23. Cupreous wrought nail recovered from Fort Astoria/George.

### *Cupreous cast nail*

One complete cupreous cast nail, approximately 19 mm in length, was recovered (Figure 24).



Figure 24. Cupreous cast nail recovered from Fort Astoria/George.

### *Cut Brass and Ferrous tacks*

A complete cut brass tack with a round, flat head and square shaft measuring 16.5 mm in length was analyzed.

Three cut ferrous tacks display square shafts and round heads. A nearly complete example is missing its tip and measures 15.5 mm in length.

### *Cut brad*

A complete 6d cut brad with an L-shaped head was identified. Similar nails recovered at Fort Vancouver are designated FOVA variety # 2006. It has been suggested such brads may have been trade items (Hoffman and Ross 1975, 109)

***Cut finishing tack***

The head and shaft of a cut, ferrous finishing tack with a round, flat head and a square shaft was recovered.

## CHAPTER 6: DISCUSSION

This section will provide a comparative discussion of the analysis results from both the Middle Village and Fort Astoria/George assemblages. Characteristics of each artifact class will be compared to illuminate the similarities and differences between the assemblages. These data will be utilized to assess the significance of Fort Astoria/George as a source for the European and Chinese manufactured trade goods recovered from early contact deposits at Middle Village. Comparative data from other Columbia River fur trade sites will also be discussed to add additional context and information relating to possible sources of the analyzed goods.

### Ceramics

Ceramic analysis provided the most useful data for comparing the Fort Astoria/George and Middle Village assemblages. Preservation factors, the existing body of research on historical ceramics, and the relatively large sample sizes from both sites aided in the value of this analysis. Analysis of vessel form, ware type, and decorative type revealed factors shaping each assemblage.

Comparison of vessel forms from both sites reveals an overall preponderance of hollowware vessels (Figure 25). At Fort Astoria/George, hollowware vessels outnumber flatware vessels 61% to 35%. This is less pronounced at Middle Village where hollowware vessels outnumber flatware vessels at 50% of the MNV compared to 42%. These percentages include sherds that could not be identified beyond unidentified hollowware or flatwares. It might be interpreted as a preference for hollowwares but with 23 vessels (30% of MNV) from Fort Astoria/George and 29 vessels (30% of MNV) from Middle Village that could not be identified beyond unidentified forms of flatware or hollowware, it is difficult to assert that preference definitively.

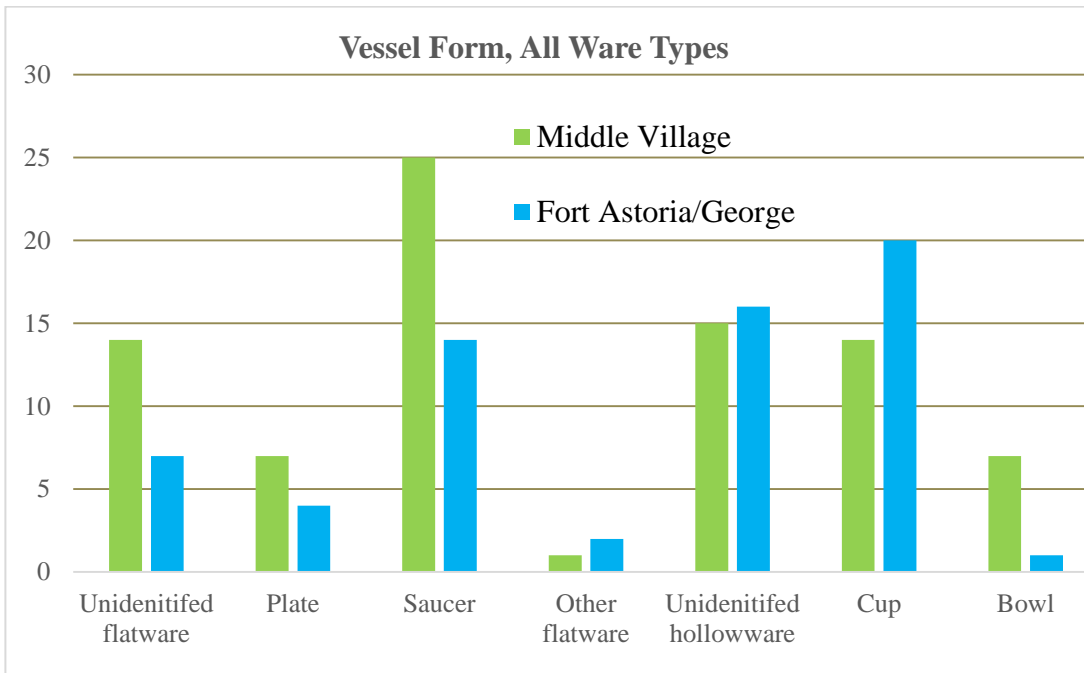


Figure 25. Minimum number of vessels by vessel form, all ware types, both sites.

Saucers are the most represented specific ware type in both collections, accounting for 22% of the Middle Village vessels and 12% of the Fort Astoria/George vessels. Cups make up 13% and 26% of the identified vessel forms at Middle Village and Fort Astoria/George, respectively. Taking these two vessel forms together as teawares, the Middle Village ceramic assemblage contains 39 such vessels, equaling 35% of the MNV. The Fort Astoria/George assemblage contains 33 teawares. This equals 43% of the assemblage's identified vessels. This is perhaps more expected in an assemblage associated at the Euroamerican-occupied Fort Astoria/George as tea consumption was a cultural norm practiced even at remote frontier outposts. The majority of the Middle Village teawares (82%) occur on refined white earthenware bodies and the others (18%) on Chinese export porcelain. Of the RWE teawares from Middle Village, a slight preference is shown for painted decoration (49%) over undecorated vessels (45%). One vessel is transfer printed. Of the Fort Astoria/George teawares, 73% occur on refined white earthenware body, 12% on Chinese export porcelain, and 15% on soft-paste porcelain. Nineteen of RWE teawares vessels (83%) are transfer print decorated. This accounts for 50% of all transfer print vessels. The remaining vessels are undecorated (13%) or painted ware (4%). While teawares on RWE bodies are the majority from both sites, a focus on decorative type reveals some potentially meaningful differences.

Painted wares are the most numerous among the Middle Village teawares and the least numerous at Fort Astoria/George. A predominance of brightly decorated teawares at other contact-period sites on the Northwest Coast has been interpreted as evidence of maintenance of traditional foodways and identities and the Middle Village teawares could be indicative of this phenomenon (Cabak and Loring 2000; Marshall and Maas 1997). The most numerous decorative type on RWE teawares at Fort Astoria/George is transfer print of which only one example was recovered from Middle Village. Transfer prints as a decorative type were introduced after hand painted wares and were imported in large numbers to the Columbia by the HBC. The Fort Astoria/George transfer print teawares may then date to the Fort's HBC-era, ca. 1821 to 1849.

Utilitarian hollowware vessels of both Chinese and European/American-manufactured stoneware were similarly represented in both assemblages. CBGS accounted for 5% of the Middle Village MNV and 4% of the Fort Astoria/George MNV. Numbers are similar for non-Chinese stonewares with 7 vessels from each sites accounting for 6% of the Middle Village assemblage and 9% of the Fort Astoria/George, respectively. Obviously, both maritime and terrestrial traders had stores of food on hand, some of which were procured from European and American suppliers while others were garnered during stopovers in foreign ports. The presence of such utilitarian food storage vessels in contact-period deposits at Middle Village could imply trade in the food items that the vessels once contained or perhaps empty vessels were acquired as storage or serving vessels. Among the trade goods referenced by maritime trade ship Captain Bishop are "150 stone jars" (Roe 1966, 162-163). Whether these vessels originate with maritime trade ships or later supply ships associated with terrestrial posts is uncertain. As these vessels changed little over time, it is difficult to ascertain from which occupation; early maritime traders, later terrestrial traders, or even settlement-era, they derive from.

The range of vessel forms in the Middle Village assemblage is of interest. Ten distinct tableware vessel forms plus seven utilitarian forms and two decorative pieces were in the assemblage. This variety vessel forms could indicate numerous and diverse sources over time. It is suggested that independently operated maritime vessels, without common suppliers and each with approximately 20 crew members aboard along with their personal possessions

could more reasonably account for this diversity than the PFC with its small supply of trade goods or later fur companies with a more homogenous supplies. Large and rare forms, such as the tea canister and chamber pot recovered from Middle Village, would arguably be more costly to acquire and it can be assumed these were not meant for trade but were personal items of traders, and likely higher status traders at that. These two objects both occur on a creamware body, an earlier ware type that is rare at fur trade posts on the Columbia that makes a terrestrial fur trade source appear less likely. No correlates have been identified from other Columbia River terrestrial fur trade posts. The diversity of vessel forms at Fort Astoria/George is reduced in comparison with seven tableware forms, three forms utilitarian storage vessels, and portions of a doll recovered. A small number of chamber pots, wash basins and sugar bowls are listed among the *Beaver's* initial cargo manifest (Wiggins Porter 1931) indicating the PFC as a possible source for such objects recovered from Middle Village. However, the *Beaver's* manifest does not describe the ware or decorative type of these objects and the examples of these forms recovered from Fort Astoria/George were not creamwares but later bodies. While the tablewares and storage vessels may be reflective of any of the nineteenth century Euroamerican occupations, the doll hints at presence of children and likely dates to the settlement-era.

Across the assemblage, the high percentage of Middle Village ceramics appearing to be cream-colored wares (creamware) (70% of RWE sherds; 51% of RWE vessels) is of interest due to the early manufacture dates of this ware type (ca. mid-1700s to 1830). Cream-colored wares are the earliest of the Staffordshire refined earthenware tradition and manufactured mainly in the eighteenth century. This date makes them too early for most Pacific Northwest sites and rare in archaeological assemblages of the region. Creamware and its successor pearlware (ca. late 1770s to mid-1800s) are rare at Fort Vancouver indicating these ware types were not much imported by the HBC (Ross 1976, 246). Two Middle Village vessels are identified as of pearlware body (ca. late 1700s to ca. 1820). Of the Middle Village creamware vessels, 49% (n=28) display hand painted decorative elements. Of the remaining vessels, 46% are undecorated and 5% are dipped wares. The presence of creamware is much reduced at Fort Astoria/George (16% of RWE sherds; 10% of RWE vessels) and appears on undecorated vessels and on painted wares with polychrome floral motifs. It is unclear what ware type “white” bowls, saucer, and mugs listed as cargo on the *Beaver* (Wiggins Porter 1931) may

describe. Although the 1812 date of import would fall within the manufacture period for creamware, the ambiguous description from the cargo manifest does not certain identification. Undecorated creamwares did account for the majority of ceramics recovered from the PFC/NWC post Fort Okanogan (Cromwell 2011). Given the similar ownership histories of Fort Okanogan and Fort Astoria/George, creamwares may have been imported to by either of these companies to Fort Astoria/George as well, and then traded to occupants of Middle Village. The lack of creamwares at Fort Astoria/George does not support this scenario, however. The hand painted creamware vessels from Middle Village and Fort Astoria/George do not have correlates at Fort Okanogan, suggesting a different source.

From Fort Astoria/George, 90% of the vessels appear to be of whiteware body. Whiteware is a later progression of the refined earthenware tradition, having replaced the earlier pearlware body by around 1820. Large amounts of whiteware were imported by the HBC after they became established in the Columbia Department in 1821. The introductory date for whiteware coincided with the archaeologically-suggested 1820 date of abandonment of Middle Village. The lack of whiteware there supports this abandonment date. The abundance of whiteware among the Fort Astoria/George ceramics dates this assemblage later than the Middle Village assemblage and also implies a later fur company source and most strongly the HBC. The decorated refined white earthenware assemblages have to potential to be underrepresented as some sherds identified as undecorated could be undecorated portions of decorated vessels or as may be expected in the case of some overglaze decoration, decorative elements may have worn off over time.

Figure 26 compares the frequency of each identified decorative type on RWE vessels from each site. The most common type seen at Fort Astoria/George is transfer print decorated refined white earthenware vessels (76% of the MNV; n=38) while at Middle Village only four transfer print vessels were identified (6% of MNV). The Fort Astoria transfer print vessel assemblage includes 15 flatware (30% of RWE MNV; 19% of total MNV) and 22 hollowware vessels (44% of RWE MNV; 10% total MNV). The small Middle Village transfer print assemblage consists of three flatware vessels and one hollowware vessel. This is a later decorative technique that was used extensively throughout the nineteenth century. As with Fort Astoria/George, transfer printing is the most common decorative type at Fort Vancouver



(Ross 1976, 256). Transfer printed tablewares on whiteware body were imported in large amounts to the Columbia Department by the HBC after 1821, post-dating the proposed occupation dates for Middle Village, but suggesting the HBC as the major source of RWE vessels recovered from Fort Astoria/George.

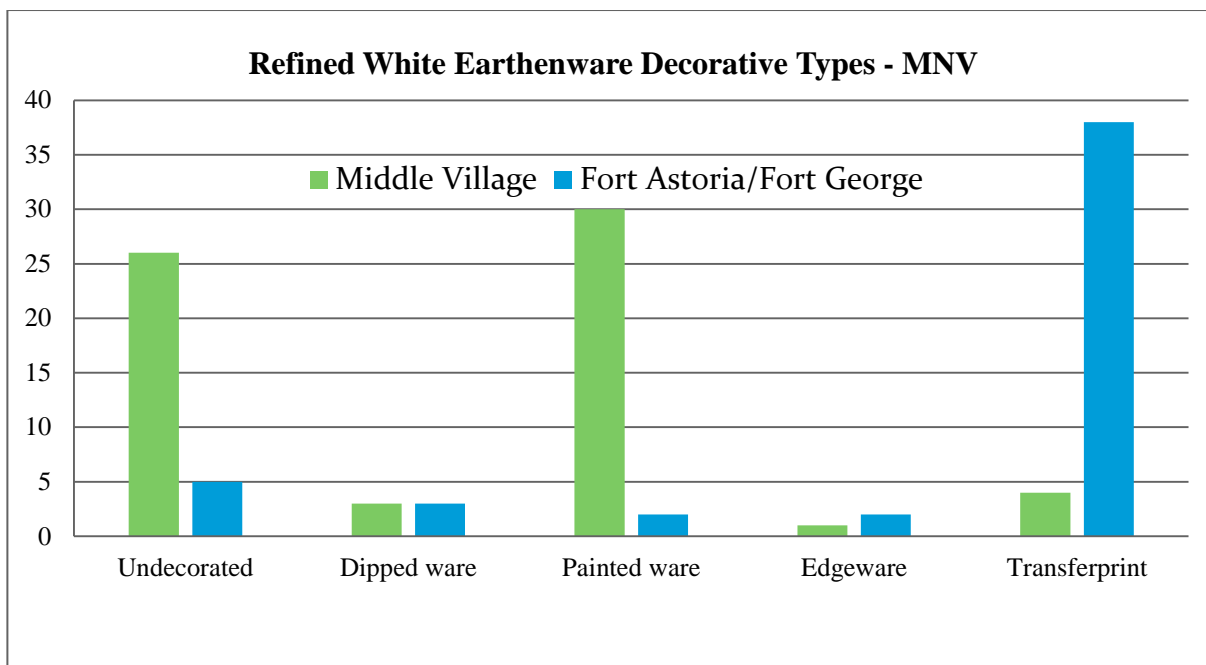


Figure 26. Minimum number of vessels for each decorative type on refined white earthenware, both sites.

As the color of a transfer print design is indication of production date, the variety of colors displayed across the Fort Astoria/George transfer print assemblage indicates many of the vessels were manufactured after ca. 1820. Colors with this later introduction appear on 37% of the Fort Astoria/George transfer print vessels. Blue pigment was the most popular color used in transfer printing from the late eighteenth century throughout the nineteenth century (Godden 1963, 11). This is reflected in the number of blue vessels appearing in the transfer print assemblages from both sites; 63% of the transfer prints at Fort Astoria/George and 100% at Middle Village. Based on color, manufacture dates for many of the Fort Astoria/George transfer prints could not be prior to the 1820. No named patterns were recognized among the Middle Village transfer prints and no matching patterns were seen between the two sites. Of the 19 identified patterns from Fort Astoria/George, production of five began prior to 1820 and continued later into the nineteenth century and all have correlates in the Fort Vancouver collection. Refer back to Table 9. Many of the identified patterns are attributed to the Spode

potteries. If HBC source is suspected for the Spode-manufactured vessels then the wares did not likely arrive at Fort Astoria/George prior to 1836 when Spode began supplying the HBC. Two of the transfer print vessels from Middle Village (50% of transfer prints) occur on a pearlware body and one (3%) from Fort Astoria/George, suggesting a late eighteenth century or early nineteenth century manufacture date. Whiteware bodies account for the remainder of the transfer print vessels from both sites, meaning 97% of the Fort Astoria/George transfer print assemblage occurs on this later ca. 1820 ware type.

The Middle Village and Fort Astoria/George assemblages do not have any identified patterns in common, while 19 of the patterns identified from Fort Astoria/George are also seen at Fort Vancouver. The range of colors in which transfer prints are executed at Fort Astoria/George indicates much of the assemblage post-dates 1820. Given that date and the similarities discussed between the Fort Astoria/George and Fort Vancouver transfer print assemblages, the HBC is indicated as the source of the Fort Astoria/George transfer printed wares.

From this comparison, multiple indicators of an earlier date for the Middle Village transfer prints are gleaned. The relatively low number of transfer prints as compared to other RWE decorative types, the lack pigments besides blue, and the occurrence of pearlware indicates an earlier pre-1820 date for the Middle Village transfer print assemblage.

Painted wares account for 47% (n=30) of the Middle Village RWE vessels compared to 4% (n= 2) of the Fort Astoria assemblage. Sixteen painted ware vessels from Middle Village are hollowwares (53%) including five bowls (31% of hollowwares). Half of the painted ware vessels can be classed as teawares for 50% of the painted ware vessels. At Fort Astoria, both painted ware vessels are hollowwares: one cup and one unidentified hollowware vessel, with underglaze polychrome floral motifs. The “enameled teapots” listed on the *Beaver’s* 1812 cargo list (Wiggins Porter 1931) are likely some type of painted wares. Teawares are generally the most frequently observed vessel forms to display painted ware decoration and their presence in large numbers could indicate a preference for teawares rather than a preference for the decoration (Samford 2015). The monochrome annular designs such as that displayed on the Middle Village tea canister could date to the late eighteenth or early nineteenth century. The underglaze polychrome floral motifs observed at both Middle Village and Fort Astoria/George began appearing ca. 1820 after innovation in underglaze pigments

(Godden 1965; Samford 2015). Painted wares are the most numerous among the Middle Village teawares and the least numerous among the Fort Astoria/George teawares where transfer print decoration is most common. The wider occurrence of painted wares at Middle Village as compared to Fort Astoria/George and the manufacture date for this decorative type adds to the evidence that the Middle Village assemblage has an earlier and different source than is suggested for ceramics recovered from Fort Astoria/George.

Dipped wares are not particularly numerous at either site. Three vessels were identified at each site accounting for 5% of RWE MNV at Middle Village and 6% of the Fort Astoria/George RWE MNV. As is expected of this decorative type, all vessels are hollowware forms. All three vessels from Fort Astoria/George display banded decoration at the rim in muted tones, indicating a mid-nineteenth century production date. The two Middle Village dipped ware vessels displaying a dripped fan design on a creamware body date to the first half of the nineteenth century. One of these is a unique form from these two assemblages: a pitcher that also displays an impressed roulette band.

The least represented decorative type appearing on British-manufactured refined white earthenware in this analysis was edgeware vessels. One plate from Middle Village with a shell-edge rim with blue underglaze pigment of pearlware body is among the earliest edgeware types produced (ca. 1775 to mid-1800s). The two edgeware vessels from Fort Astoria/George occur on ca. mid-nineteenth century whiteware bodies.

At Fort Astoria/George, soft-paste porcelains tablewares are represented by eight vessels (9% of MNV). While not plentiful, they form a larger part of the assemblage than at Middle Village with only one undecorated unidentified hollowware sherd recovered (<1% of MNV). Six vessels from Fort Astoria/George are undecorated, a rarity for nineteenth century soft-paste porcelain tablewares. Two Fort Astoria/George vessels (9%) display a combination of overglaze and gilded decoration. This decorative type became common after 1880 and may be of Japanese manufacture (Majewski and O'Brien 1987, 129). It is possible that the analyzed undecorated sherds represent undecorated portions of decorated vessels or that overglaze decoration has worn off. The marked Haviland saucer dated to 1882 confirms a post-fur trade origin. Davidson (1918) lists "plated and gilt wares" imported by the NWC to the Columbia. These may be soft-paste porcelains. Historic supply and market factors may suggest a British

source for the Fort Astoria/George soft-paste porcelains, although as pointed out by Majewski and O'Brien (1987, 127) distinguishing a source for these wares is difficult as nearly identical wares were manufactured in various places.

A minimum of 33 Chinese export porcelain vessels were identified in the Middle Village assemblage, accounting for 30% of the MNV compared to just seven vessels or 9% of the MNV from Fort Astoria/George. Flatware vessels dominate in the Middle Village CEP assemblage at 48% of the MNV. Hollowware vessels total 10, or 30% of the overall Middle Village vessel total. The small Fort Astoria/George CEP assemblage consists of 43% flatware vessels and 57% hollowware.

For 55% of the Middle Village CEP vessels and 43% of the Fort Astoria/George vessels, a pattern could not be determined. Of the identified decorative patterns at Middle Village, the earlier (ca. 1780-1820) Nanking decorative type is the most common. It was seen on 27% of the CEP vessels. Only one vessel with Nanking decoration was identified from Fort Astoria/George (14% of the CEP vessels). Cantonwares account for 43% of the Fort Astoria/George CEP vessels. These date from ca. 1820 to 1880. Just 15% of the Middle Village CEP vessels are Canton. The single celadon bowl with overglaze hand painted enamel decoration recovered from Middle Village has no correlates in the fur trade post assemblages reviewed for this project.

Chinese export porcelains are common in archaeological assemblages from fur trade sites in the Pacific Northwest. Their frequency and decorative types at other sites from the early and later fur trade periods can be revealing in relation to the findings of the present study. At the NWC's ca. 1810-1826 Fort Spokane, 69% of all identified vessels are CEP with Nanking decoration displayed on over half of these (Cromwell 2006, 8, 9). At the later ca. 1829-1860 Fort Vancouver, Chinese porcelains account for less than 1% of recovered ceramics. Among these, Canton is the most common decorative type (Ross 1976, 238, 241). Nanking is generally recognized to be of finer quality and an earlier date than Canton. As mentioned previously, trade with China was heavily regulated by the British government. This resulted in reduced access to CEP for the Canadian fur companies when compared to American and other maritime traders. There is no indication that the PFC imported CEP to the Columbia during their short operational period. Based on the Fort Spokane assemblage, the NWC apparently

did import CEP to the Columbia and this occurred prior to 1820 due to the presence of Nanking pattern. Based on the higher frequency of CEP overall and the predominance of Nanking decoration on vessels from Middle Village, an earlier date and a maritime fur trade or NWC source may be indicated. Ross (1976, 237) reports that the HBC obtained Chinese ceramics in the Sandwich Islands (Hawaii) from American traders. Due to the similarities with the Fort Vancouver CEP assemblage, the Fort Astoria/George CEP appears to have a HBC source and later date can be assumed making it unlikely that any quantity of CEP recovered from Middle Village came from trade with Fort Astoria/George.

As ceramic objects do not appear to have been of the more commonly traded goods during the early fur trade based on historic accounts, their appearance in early trade assemblages must be examined. While ceramic goods, and specifically hollowware vessels, appear to have been included as trade goods in the cargo of maritime vessels by ca. 1827 (Gibson 1992, 216) and the HBC is known to imported quantities of ceramic table wares to their Columbia posts after 1821, early goods likely arrived in Native hands through different dynamics during the early fur trade period as touched upon in Chapter 3. Specifically, during the early fur trade period mass produced ceramic goods came to the Columbia as the personal goods of fur traders themselves or as expendable merchandise of the China trade whether directly via China or through intermediary trade in the Sandwich Islands.

Larger amounts of Chinese export porcelain in early fur trade assemblages may result from multiple factors at play in the maritime trade. Ships returning to the Northwest Coast from China for a second trading season could have acquired cargoes of Chinese-manufactured ceramics, perhaps expressly for trade with Native groups. Because of its low value as compared to other cargo, namely tea and silk, porcelain was seen as expendable, and was in fact often used as ballast on ships leaving Canton. For this reason, CEP came to be referred to as “ballast ware” by traders (Gibson 1992, 54; Schiffer et al. 1975, 12). The dominance of American ships in the maritime fur trade may have also resulted increased amounts of CEP in the Pacific Northwest. Americans had better access to these wares than to British-manufactured refined white earthenware during this period. John Jacob Astor had long been active in the China trade when Fort Astoria was established. However, there is no documentation of Astor shipping CEP to the Columbia and the general lack of Nanking

pattern CEP recovered from Fort Astoria/George, the most common pattern produced during the PFC period, does not indicate early CEP was imported by the PFC. The NWC cannot be excluded as a source of Middle Village CEP as they also traded directly with China and large amounts of CEP were recovered from their post Fort Spokane.

Ceramic goods that were available to the terrestrial fur traders at Fort Astoria/George, and through them to Native traders, can be inferred from different sources. Small amounts of ceramic tablewares are listed in ledgers and cargo manifests from John Jacob Astor's fur trade operations discussed in Chapter 3 of this thesis (Swagerty 1984; Wiggins Porter 1931). Besides standard vessel types (saucers, plates, etc.), less common forms including chamber pots, tea canisters and pots, pitchers and sugar bowls are listed. Descriptions suggest refined white earthenware vessels, either undecorated or with hand painted or transfer print decoration, and utilitarian stonewares. The small quantities of these goods recorded would suggest these were supplied for the personal use of traders and not meant expressly for trade. Records from the NWC are largely lacking and their operations on the Columbia during the period from 1812-1821 are little understood (Cromwell 2006, 3). They are known to have imported earthenware of some sort and range of expensive goods including gilt wares, possibly British manufacture soft-paste porcelains (Davidson 1918). In the early 1820s, the HBC began shipping a variety of British manufactured ceramic goods to the Columbia Department. In 1836, the variety of British manufactured ceramic goods imported to the Columbia was much reduced after the HBC began an exclusive relationship with the Spode potteries in their various incarnations, while quantities and regularity of shipments increased to supply their growing operations in the region (Ross 1972, 187, 236).

This comparison revealed multiple differences between the ceramic assemblages. Informative dissimilarities were noted in ware and decorative types that showed the Middle Village assemblage to be different to and older than the Fort Astoria/George assemblage. Principal among these differences is the high occurrence of RWE vessels with an earlier creamware body, both undecorated and displaying underglaze hand painted decoration, at Middle Village versus the predominance of RWE vessels with a later whiteware body and transfer print decoration at Fort Astoria/George. Creamwares are rare at Fort Astoria/George; conversely whitewares rare at Middle Village. Indeed, creamware objects are rare in Columbia River fur

trade sites overall due mostly to the fact that they were mainly manufactured (ca. mid-1700s to 1830) prior to establishment of many posts and prior to much large-scale importation of ceramics goods to the region. Transfer printed decoration and whiteware ceramic bodies both increased in popularity towards the end of the suggested occupation dates for Middle Village (ca. 1790-1820) and are known to have been imported in quantity to the Columbia by the HBC. A second major difference between the assemblages is seen in the CEP recovered from the sites. CEP is much more abundant at Middle Village than at Fort Astoria/George where this ware type is relatively uncommon. The most commonly identified decorative type of Middle Village CEP is Nanking, dating from ca. 1780-1820, while at Fort Astoria/George the later Canton decorative type (ca. 1820 to 1880) is more plentiful. To further establish the distinctiveness of the Middle Village ceramics when compared with other Columbia River fur trade assemblages, a number of unique ceramic objects occur at Middle Village, including the tea canister and the gorget. In summary, this ceramic analysis showed the majority of Middle Village objects to date earlier than the Fort Astoria/George objects. Many of the ceramics recovered archaeologically from Fort Astoria/George were manufactured after the suggested date of abandonment of Middle Village suggesting differing sources for these trade goods.

Focusing on characteristics of each assemblage can lead to identification of possible sources. Some similarities are seen between the Middle Village assemblage and assemblages from early PFC and/or NWC occupied posts on the Columbia River other than Fort Astoria/George. Undecorated creamwares also occur with frequency at Fort Okanogan which had both PFC and NWC associations. At the NWC's Fort Spokane, the ceramic assemblage is composed primarily of Nanking decorated CEP. Due to the uncertainty of the records relating to goods imported by the PFC and NWC during early fur trade period, archaeological correlates are helpful in suggesting sources for commonly recovered goods. The NWC is known to have traded directly with China and possibly imported CEP as may be gleaned from the Fort Spokane assemblage. Based on the occurrence of CEP and creamwares at these other sites, the NWC can be put forth as a source for these wares at Middle Village and Fort Astoria/George. The comparatively small numbers of creamwares and CEP recovered from Fort Astoria/George complicates this attribution, however. It would be anticipated that these wares would occur more regularly at Fort Astoria/George if there was a shared NWC source as goods imported by the company to the Columbia would have passed through there.

The early ceramic types, unique objects without correlates in related assemblages, and diversity of ceramic forms from Middle Village suggest these goods were introduced to the site by varied sources over time and many likely originated as the personal belongings of Euroamerican traders. These conditions may imply maritime fur trade sources as it can be reasoned that each ship would have been separately outfitted and brought a diversity of trade goods along with the personal goods of all individuals aboard to the Columbia from whence they may have been received into the Native sphere. While little is known of the goods supplied by the PFC and the NWC during the early fur trade period of the Columbia, a more homogenous set of goods is expected of the later terrestrial-based fur companies and correlates are more likely between sites occupied or supplied by those companies. The HBC is known to have directly imported British-made ceramics to the Columbia and specific among these were transfer printed whitewares. The numerous transfer printed whitewares recovered at Fort Astoria/George suggest the HBC as a source for the majority of ceramic wares recovered from Fort Astoria/George and, therefore, indicate the majority of ceramics there were introduced after Middle Village was abandoned.

### **Glass Beads**

Limitations exist in making significant comparison between the Middle Village and Fort Astoria/George bead assemblages. Sample size is a limiting factor due to the small number of beads recovered from Fort Astoria. Due to the lack of robust data on glass bead manufacture place and date, the comparative typological information and relative dates provide the most useful indicators of correlation, or lack of, between the assemblages. Discussion of the analyzed beads can still reveal some informative similarities and differences between the assemblages and place them within a wider historic context.

From Middle Village, the most numerous bead recovered is Type 6 (simple, wound, oblate to round, blue), accounting for 44% of the bead assemblage. This type does occur in some frequency at Fort Astoria, accounting for 22% of the assemblage. According to Ross (1990, 49) these are the most common wound beads at Fort Vancouver and at early nineteenth century sites in the Pacific Northwest. This type may represent a variety of beads imported by Lewis and Clark, the PFC, the NWC, and the HBC, and was therefore present as a trade good on the Columbia River throughout the fur trade period.



At Fort Astoria/George, Type 1 (simple, drawn, short-cylinder, hot tumbled, white) is the most common bead type and while present, this bead type only accounts for a small portion of the Middle Village bead assemblage (37% versus 7%). The predominance of white beads at Fort Astoria, a type that is rare at Middle Village, but common at HBC Fort Vancouver (Ross 1976) could indicate a later introductory date or perhaps be a result of Native preference for blue beads.

Simple, drawn beads are more numerous at Fort Astoria (50%) while simple, wound beads are more common at Middle Village (62%). Drawn beads are the most common bead type in fur trade archaeological assemblages and the most common bead type at Fort Vancouver is undecorated cylindrical monochrome drawn bead (Ross 1976; Sprague 1985, 87). Based on this similarity, there is indication that the Fort Astoria bead assemblage may be more related to later Hudson's Bay activities than with the early fur trade on the Columbia River.

Among the beads recovered from both sites are compound blue on blue beads with surface-ground facets (Type 2). These beads are common in nineteenth century contexts. Such beads have commonly been misidentified as coming from a Russian source and may rather have been traded by nineteenth century Euroamerican traders. Ross suggests such beads are commonly associated with post-1820 HBC activities in the Pacific Northwest (Ross 1990, 38).

Large, fancy wound beads encountered at Middle Village, such as Type 38, 39, 40, likely were manufactured in Italy (most probably Venice) in the late eighteenth to the early nineteenth century (Sprague 1985, 94). Such beads became increasingly common after about 1760 and through the early-nineteenth century. As no correlates exist at Fort Astoria or Fort Vancouver, a maritime source may be indicated.

Time ranges for production and distribution of specific bead types are not well defined. The majority of bead types included in this analysis have little value as chronological markers. This is true for the well-represented examples here, such as simple monochrome beads, for which manufacture and decorative techniques changed little over time (DeCorse 2009, 307). Most dates are relative to other artifacts recovered in association or through historic records. Bead descriptions given in fur trade shipping records and inventories are largely generic and

ambiguous and provide little useful information in tying bead types encountered archaeologically to those mentioned in the historic record, i.e., measurements or shape characteristics are not provided. Ross' work at Fort Vancouver to tie beads recovered archaeologically with beads described in HBC shipping records was largely unsuccessful (Ross 1990, 32). The records of the American Fur Company examined for this study list large quantities of beads including some described as "wampum" in colors including blue, white, black, and red. Barleycorn beads are also mentioned (Swagerty 1984). These have been described as wound glass beads around 8mm long seen in white, black, and sometimes blue with an ellipsoidal shape dating from ca. 1750-1840 (Karklins 1967). Only one bead recovered from Middle Village fits this description (Type 28). Given supply factors, the majority of beads in this analysis likely originate in Europe, although Chinese origin for some specimens cannot be excluded. As the majority of beads are simple and monochromatic, little definitive origin data is offered.

Both assemblages appear somewhat distinct from the Fort Vancouver assemblage based on the number of beads that do not appear at Fort Vancouver but are found at Fort Astoria and Middle Village. More notable at Fort Astoria is the absence of molded beads that do appear at Fort Vancouver and mainly date to the mid-nineteenth century (Sprague 1985, 95). This may reflect the decrease in trade operations at Fort George during in the HBC-era after Fort Vancouver was established ca. 1821. Although beads are known to have been imported to Fort Astoria by the PFC based on historic records (Wiggins Porter 1931), the size, type, and color of those beads are unknown. Non-fur trade sources of European or Chinese manufactured glass beads, including varieties pre-dating the fur trade, may include inter-tribal trade and the Lewis and Clark Expedition.

### **Nails**

Due to poor preservation and resulting lack of diagnostic features, nail analysis provided limited usefulness in comparing the sites. The large number of indeterminate square nails in both assemblages, 146 at Middle Village and 419 at Fort Astoria/George, indicates the poor level of preservation for metal objects at both sites. Such nails may be either cut or wrought and of American or British manufacture, so their indeterminate status adds a degree of

vagueness to the findings of this analysis. Information on the source and manufacture dates of these nails cannot be precisely determined although more general statements can be made.

The majority of the large number of nails recovered from the Fort Astoria/George site can be assumed to be architectural in original use. The history of the site and its surroundings include multiple phases of Euroamerican occupation and the related development of the built environment. With no stratigraphic control and few temporally diagnostic nail features to differentiate between the closely successive historic occupations of the site, recovered nails cannot be definitively assigned to one or the other of these occupations. On the other hand, nails recovered from the well-dated deposits at Middle Village likely served a much different purpose based mainly around the symbolic meaning ascribed to them by their early Lower Chinook adopters.

The occurrence of square nails from intact Middle Village deposits indicates they entered the site as trade goods. Given their archaeological context architectural use is not suspected. Square nails are described in contact-period assemblages on the Northwest Coast and as mentioned above their use as status goods among Native groups is well-documented (Moss and Wasson 1998, 320). Indeterminate square nails recovered from Fort Astoria/George may date to the fur trade occupation, later settlement-era structures or 1922 fire debris.

Few positively identified wrought nails came from either site. One complete wrought nail was recovered from Middle Village in addition to six incomplete examples from Middle Village and three from Fort Astoria (one cupreous) may indicate an early maritime source or be a function of the frontier economy. The persistence of wrought nail technology at remote sites and more commonly at British-related sites after cut nails became generally produced (ca. late eighteenth century) may be related to the supply-chain (Adams 2002, 70). Blacksmiths were among the initial group of Astorians and maritime fur vessels also had blacksmiths aboard capable of producing wrought nails on demand and it is known that HBC blacksmiths at Fort Vancouver continued making wrought nails into the mid-1800s (Gibson 1992, 29-31; Ross 1923; Ross 1976, 902). However, the HBC is also known to have imported wrought nails.

Cut nails were identified in equal numbers (n=34) at both sites. Fifteen Fort Astoria/George cut nails were determined to be American common machine cut nails which were first

produced ca. 1830. No such nails definitely identified from Middle Village, fitting expectations based on dated site occupation. This is a general construction nail and similar nails are produced even today. The American common machine-cut nails from Fort Astoria/George could be representative of multiple functions. They may have been imported by one of the fur trade companies as trade goods or as construction supplies for the different incarnations of the Fort. Given the long use of this nail type, they may also result from later post-settlement construction. The HBC imported American machine cut nails to Fort Vancouver beginning in the late 1840s (Ross 1976). Additional historic records mention similar nails (“4d nails”, “4 common nails”) as goods which both maritime fur traders and terrestrial fur traders associated with Astor’s AFC had in supply (Roe 1966; Swagerty 1984).

Well-preserved yellow metal tacks and nails occur at both sites. A wide variety of copper and brass fasteners were found at Fort Astoria/George ranging from a wrought cupreous nail to a cut brass tack. Cut brass tacks are relatively numerous at Middle Village (n=9). In contrast, the single brass track recovered from machine cut brass tack with a flat head occurs at Fort Astoria/George. The multiple tacks from Middle Village could have been once been part of objects where organic portions have since deteriorated, such as furniture, chests or shoes, or have been individual trade items likely used for personal adornment by their Native adopters. In the example of the cupreous 2d cast nail recovered from Middle Village, the section of twined cordage wrapped around the shaft indicate its use as an object of personal ornament at some point in its history. Such use fits pre-contact cultural patterns of importing Native-produced copper ornaments. Native-produced copper ornaments from the Northern Northwest Coast were pre-contact status goods (Acheson 2003). A 2d cupreous cast nail was also recovered from Fort Astoria/George indicating trade with the traders there as a possible source for the Middle Village nail. It is, however, also worth mentioning that cupreous cast nails are the most common among the yellow metal nails recovered in the later Fort Vancouver deposits (Ross 1976, 923).

Discussion of the nail assemblage at Fort Vancouver is meant to provide context for the Fort Astoria/George assemblage, given the HBC supply connection between the two sites. It is difficult to ascertain goods meant for trade from functional goods meant for residents at Fort Astoria/George, if such a distinction is appropriate. The inclusion of a portable forge and iron

and steel rods among the initial supplies imported to Fort Astoria aboard the *Beaver* show that the production of nails was at least possible there (Wiggins Porter 1931). Besides direct trade with maritime and terrestrial fur traders on the Columbia, intertribal trade in nails salvaged from shipwrecks or in direct trade with Euroamericans in other areas could account for nails recovered from Middle Village.

## **CHAPTER 7: CONCLUSIONS AND SUGGESTIONS FOR FUTURE RESEARCH**

This section will summarize the findings of this analysis and attempt to relate the implications of those findings to the historic circumstances of the early fur trade on the Columbia River specifically addressing evidence of Fort Astoria/George as a source of Middle Village trade goods. Limitations of this study will also be examined. To conclude, suggestions for how this study can be built upon and incorporated into similar fur trade studies and studies looking at issues relating to cultural contact situations more broadly will be presented.

### **Summary and Conclusions**

This thesis examined the question of whether an archaeological signature could be determined for Fort Astoria/George that would help determine the source of Euroamerican-introduced trade goods at Middle Village. Archaeological investigations conducted at Middle Village between 2002 and 2005 dated occupation of the site to ca. 1790 to 1820, making it the earliest fur trade era assemblage from a Native context recovered on the Lower Columbia River. Fort Astoria/George represents the earliest Euroamerican terrestrial fur trade post on the Lower Columbia River, dating to ca. 1811-1849. The sites, located only eight miles apart, were occupied concurrently for approximately nine years and fur trade activities were a major focus at both. Fort Astoria/George traders documented extensive interactions with the Lower Chinook, however, it is unclear whether the fur trade goods recovered from Middle Village are more representative of trade with maritime fur traders or the traders at the Fort. Previous analysis indicated that Middle Village trade goods largely dated earlier than artifacts recovered from well-documented Pacific Northwest terrestrial fur trade sites such as Fort Vancouver, Fort Spokane and Fort Okanagan (Cromwell 2006b; Wilson et al. 2009). Prior to 2012, no formal archaeological assessment of the Fort Astoria/George site had been conducted, and, therefore, no assessment could be made regarding a material relationship between the site and Middle Village and questions as to the source of the Middle Village trade goods remained unanswered. Limited excavations at Fort Astoria/George in 2012 generated new data and allowed this question to be addressed. To examine the exchange relationship between the sites and gain a better understanding of the orientation of the trade at Middle village, a comparative typological analysis of three artifact classes recovered archaeologically at these sites was undertaken. These artifacts were chosen based upon their perceived utility

for examining trade relationships due to their documented use as trade goods during the early fur trade and because of their presence in both assemblages. These artifacts included British and Chinese-manufactured ceramics, glass beads, and nails. Based on this analysis, no strong correlations between the Middle Village and Fort Astoria/George assemblages were revealed that would suggest Fort Astoria/George as a major source of British and Chinese mass-produced trade goods utilized by the Middle Village residents during the early fur trade period.

The relevance of this study lies in the significance of Middle Village as the earliest yet described assemblage from a Native-context containing objects introduced through direct trade with Euroamerican fur traders on the Columbia River. As such, the site is important to understanding the earliest period of contact between Lower Chinook and Euroamerican traders and how those early interactions may have shaped ensuing economic and cultural developments. The early fur trade period (or maritime fur trade period), when largely independent maritime trading vessels dominated the Northwest Coast fur trade and prior to the ascendancy of monopolistic terrestrial fur companies, is not a well understood historical era. Examination of the early sites included in this thesis can inform on the maritime fur trade period and increase the body of data relating to the better-documented terrestrial fur trade period. Inclusion of these data in further comparative studies of material culture from related sites may help refine the attribution of fur trade goods and contribute to larger-scale pattern recognition across fur trade sites. Comparison of archaeological recovered trade goods from Fort Astoria/George provided the opportunity to address that site as a source of Middle Village objects. Better attribution of goods recovered from Middle Village will create a clearer picture of the factors at play in the initial adoption of Euroamerican material culture among the Lower Chinook and provide a local example for wider-scale studies in a Native response to culture contact. Through an understanding of whom the Lower Chinook of Middle Village were trading with and what goods they trading for, a picture of the early contact period from a Lower Chinook perspective can be gleaned.

It should be made clear that the utility of Fort Astoria/George for meaningful comparison and conclusive data as to the source of Middle Village trade goods is limited due to the lack of defined archaeological contexts, closely spaced occupations with similar material signatures,

and the lack of data on goods attributable to the PFC, specifically. The abundance of introduced European and Chinese manufactured trade goods and well-defined archaeological contexts at Middle Village make the site a good candidate for inclusion in future studies aimed at the interpretation of Native involvement and motivations in the early trade period. It is hoped elements this study will be incorporated into future fur trade studies and also be useful in studies focusing on Native actors in the early contact period.

Based on this study's comparative typological analysis, insufficient similarities were identified to strongly suggest a common source for the early trade goods recovered from the Lower Chinook Middle Village and Fort Astoria/George. Earlier manufacture dates (ca. 1790-1820) for the majority of Middle Village artifacts are highly suggestive of an alternate source. The majority of objects well-dated objects recovered from Fort Astoria/George date to a period after the abandonment of Middle Village according the archaeologically-derived dates. The diversity seen among the Middle Village artifacts, many without reported correlates in other fur trade-era sites with historical connections, is interpreted as reflecting a wide variety of sources, of which a combination of maritime and terrestrial traders are suspected. While similarities in materials present and documented trade links between the sites do exist, none are believed significant enough to suggest a Fort Astoria/George as a major source of introduced trade goods at Middle Village.

Many correlations are seen between the Fort Astoria/George assemblage and artifacts from HBC's Fort Vancouver, signaling the majority of analyzed objects from Fort Astoria/George are associated with HBC operations on the Columbia River and after ca. 1821. However, the lack of well-defined occupation layers at Fort Astoria/George does not allow for the assigning of recovered materials to a tightly-dated historical occupation of the site. This situation complicates the attribution of source via comparison and leaves open the possibility that more similarities between the two collections analyzed here could have been recognized under different conditions.

Comparison of the ceramic assemblages offered the most typological and chronological data in this analysis. At Middle Village, comparatively earlier ceramic bodies and decorative types were more numerous than at Fort Astoria/George. Undecorated and hand painted decoration on British-manufactured cream-colored refined earthenware bodies (i.e., creamware, ca. mid-



1700s to 1830) are common at Middle Village. Manufacture of the body type pre-dates most Pacific Northwest fur trade sites and has not been recovered in quantity from any terrestrial fur trade site in the region, including Fort Astoria/George. Chinese export porcelain vessels occur in a ratio of about 5:1 at Middle Village as compared to Fort Astoria/George. Nanking decoration, an earlier type (ca. 1780-1820) and the most identified decorative type on the Middle Village Chinese porcelains, is rare at Fort Astoria/George and at other terrestrial fur trade sites, again being too early for their occupations. Transfer print, the most common decorative type seen on Fort Astoria/George's refined white earthenwares dates from the late 1700s to the mid-nineteenth century. It appears in very low numbers at Middle Village while it is the dominate type at later terrestrial fur trade posts. The Fort Astoria/George transfer prints share similarities with transfer prints from the HBC's Fort Vancouver. Given the differing characteristics of the ceramics assemblages just outlined, Fort Astoria/George does not appear to be a strong candidate as the source of Middle Village ceramic goods.

Results of bead analysis suggest an earlier date and a variety of sources for Middle Village assemblage. While tightly dating glass beads is problematic as identical beads were produced over long periods of time, types commonly recovered at Middle Village are less common at other Columbia River fur trade sites. Additionally, beads unique to Middle Village in this analysis likely date to the early fur trade period while beads in common between the two sites are among the more frequently recovered types from nineteenth century fur-trade associated sites in the Pacific Northwest. Beads from Fort Astoria/George are more similar to later fur trade assemblages with a HBC source, namely Fort Vancouver. The higher number of blue beads recovered from Middle Village likely illustrates Native preference for this color as had been suggested by multiple historical sources.

Comparison of nails recovered from both sites was fairly inconclusive given the poor preservation of large numbers of these objects and resulting lack of distinguishable characteristics that could identify successive nail technologies, i.e., wrought versus cut. A few wrought nails were identified from both sites although, as discussed previously, this may not necessarily mean an earlier manufacture date. A variety of cupreous and brass nails and tacks were recovered at both sites. The redefinition of nails as objects of personal adornment by the Lower Chinook is suggested by the recovery of a copper nail fashioned into a pendant at

Middle Village. Any attempt to distinguish between nails used for their intended purpose and those used as trade goods at Fort Astoria/George may be artificial as no physical distinction exists between nails used for their intended purpose and those redefined after being traded into the Native system. Later nail types from Fort Astoria/George introduced after the early fur trade period are reflective of the site's successive occupations into the modern era.

Refining artifact attributions to specific occupations at Fort Astoria/George is not possible due to the lack of discrete archaeological horizons relating to the successive occupations of the Fort and its environs. As the Fort progressed from the Pacific Fur Company Fort Astoria (ca. 1811-1813), to the North West Company's Fort George (ca. 1813-1821), the Hudson's Bay Company's Fort George (ca. 1821-1849), to the American settlement-era town of Astoria all within less than 40 years, no hugely apparent typological differences in the material record are recognizable. While objects with well-documented fur trade ties can be associated with fur trade occupation with some confidence (i.e., beads), in the absence of clear provenance data objects in general use in Euroamerican contexts (i.e., nails, mass produced ceramic tablewares) throughout the nineteenth century cannot be assigned to a specific occupation. The goods imported to the Columbia River in the early fur trade period by maritime traders, the PFC, and the NWC are not well documented. As the fur trade period progressed, the well-established Canadian fur companies imported more goods but also less diverse goods from single suppliers to outfit their multiple Columbia River posts, and a more recognizable archaeological signature developed. However, as was pointed out previously, the differences between these companies, the NWC and the HBC, are not large. Similarity between assemblages with a common source is expected and, therefore, commonalities between objects recovered from related Euroamerican posts and the Native sites they supplied anticipated. Similarities between the material signatures of Fort Astoria/George and Fort Vancouver points to a common source of objects recovered from these sites. A material link between the sites is not surprising given that after 1821, when Fort George was assumed by the HBC, the sites had a common supply source. Indeed, all HBC supplies arriving via ship passed through Fort George. Moving into the settlement period, many of these same mass produced goods would have been wide available to both fur trade companies and private citizens were utilized the Fort Astoria/George site. A maritime source is indicated for the Middle Village ceramics given that the early manufacture date for majority of the wares and

the their dissimilarity to other better documented fur trade post assemblages. Specific to the higher occurrence of Chinese export porcelains at Middle Village, a maritime source is deemed more likely given the conduct of and factors surrounding the maritime versus the terrestrial trade and the fact that maritime traders had more direct and recurrent access to Chinese goods. Recovered Fort Astoria/George ceramics are more similar to the later HBC assemblages in the region and therefore generally date to post-1821 and the after occupation of Middle Village.

As Fort Astoria/George does not appear to be the major source of trade goods found at Middle Village, possible alternate sources should be discussed. European and Chinese manufactured objects that appear in higher frequencies in the archaeological record and also appear in historic records can be inferred to be goods meant for trade. For unique objects with no known correlates in collections of similar context and for objects that are recovered infrequently, one of two origins is assumed. Variation among artifacts of a single class and recovered from an archaeological horizon with a short and well-dated occupation may indicate a maritime source. Such variety could be imagined to derive from successive trading episodes involving one individual vessel among the large number of maritime vessels visiting the Columbia; each with relatively heterogeneous trade goods aboard. Alternately, the personal goods of traders, terrestrial or maritime, could also be imagined to be more unique than the goods acquired in bulk specifically as trade goods. Goods supplied by later terrestrial fur companies as trade goods for their Columbia operations can be expected to be less varied, as has been previously discussed. This condition is illustrated in the range of vessel forms and of decoration displayed among the Middle Village ceramic assemblage. One exception to this hypothesis may be the ceramic gorget recovered from Middle Village that, although unique, was likely produced specifically for the Native trade (Wilson et al. 2009, 319). It should be reiterated that ambiguity remains about the goods imported to the Columbia during the early fur trade period by the PFC and the NWC. The predominance of creamware RWE and Nanking style CEP ceramic vessels at Middle Village also indicate an early source. Either maritime or early terrestrial period PFC or NWC activities could account for these. Archaeological correlates do exist for these goods in other early fur trade period sites on the Columbia associated with these companies; however, they are not numerous at Fort Astoria/George. The unique bead specimens, without correlates in later fur trade assemblages

associated with the large fur companies, appear to indicate early and varied sources. Inter-tribal trade is another possible source of trade goods at Middle Village. The extensive trade links the Lower Chinook maintained with other Native groups may have brought objects to Middle Village from areas with early contact with Euroamericans including Russian and Spanish Pacific Coast settlements, for example. The Fort Astoria/George assemblage is more similar to the later HBC assemblages in the region and, therefore, generally dates to later post-1821 fur trade activities and the after suggested abandonment of Middle Village.

The question arises as to whether the adoption of certain objects by the Lower Chinook at Middle Village is due to choice or supply. It is assumed that the two are linked. The trade goods supplied by Euroamerican traders were brought to the Northwest Coast because they were those desired by the Natives. As discussed in Chapter 3, the competitive nature of the trade required traders to be diligent about the goods they offered in order to be successful with the highly selective and hard-bargaining Lower Chinook. One issue that is interesting to examine is the apparent undesirability of the merchandise on hand at Fort Astoria, as described in the quote by Astorian Alexander Ross included in Chapter 3 (Ross 1986, 161). In that case, the Middle Village Lower Chinook and other Lower Columbia Natives trading with the Astorians may have reserved the bulk of their trade for the maritime traders whose goods the Native traders viewed as superior. This last point is suggestive of the power and agency of the Lower Chinook in the early fur trade period. The goods desired by the Lower Chinook during the early contact period as reflected by the historic record and the archaeological record at Middle Village suggest some interesting cultural negotiations were at play. While some goods provided technological advantages (i.e., metal knives, wool blankets) others were selected for their aesthetic and symbolic value (i.e., glass beads, hawk's bells). For still others, the Middle Village tea canister and chamber pot for example, the appeal, whether functional or symbolic, is less clear. As the fur trade era progressed, the goods available, the conduct of trade and trade relationships changed due to multiple factors, i.e., demographic changes and pressures on traditional culture.

The early trade period included more peripheral relations and short-term interactions. It was a less disruptive presence to Native societies than the later, more permanent terrestrial fur trade moving that evolved into the settlement period (see Chapter 3). The Lower Chinook

maintained, and possibly expanded, their wealth-based social structure and vast trade connections with the new opportunities offered by the arrival of the Euroamerican traders. Their preference for trade objects that supported traditional cultural expression, specifically displays of status, is reflected in prevalence of items of personal adornment in the Middle Village assemblage, such as the cupreous nail pendant and glass beads. Unique objects, such as the tea canister, may be evidence of their power in the trade in that it may reflect the ability of Lower Chinook traders to demand the expensive personal belongings of the Euroamerican traders.

The position occupied by the Lower Chinook in the early fur trade system may have also had another effect on the archaeological record at Middle Village. The Lower Chinook took full advantage of superior geographical position of their territories at the mouth of the Columbia ability to dominate the trade there, acting as middlemen between the Euroamerican traders and upriver tribes. Again, see Chapter 3 for a more complete discussion. This position afforded them first pick of the trade goods received from the Euroamericans. It is possible less desirable goods were redistributed to their upriver Native fur suppliers as has been suggested by historical observers. Such selective practices not only display Lower Chinook agency but may also complicate the identification of a common source of goods at Middle Village. While not undertaken here, an analysis focusing of Native preference and display of power in the trade as reflected in the archaeological record may illuminate some of the lesser-known factors affecting the earliest adoption of European and Chinese manufactured goods.

In conclusion, it is assumed that Fort Astoria/George is not the major source of trade goods at Middle Village. Instead, due to the early date and the uniqueness of the assemblage, a majority maritime source is inferred. Limitations must be noted on conclusions that can be drawn from the Fort Astoria/George assemblage because of the level of disturbance documented at the site and the lack of defined stratigraphic data. If other areas surrounding the Fort site become available for excavation in the future, additional data may help refine the attribution of fur trade goods on the Lower Columbia River. Similarly, the identification of goods with a maritime source would be furthered if the wreck of a maritime fur trade vessel with an intact cargo of trade goods should ever be excavated and a material signature for such vessels described. The potential of Middle Village to inform on the behavioral and social

aspects surrounding the early incorporation of Euroamerican-introduced material culture by the Lower Chinook has been alluded to in this thesis. This potential will be discussed further below.

### **Suggestions for Future Research**

It is anticipated that the data resulting from this study will have utility for at least two groups of researchers, namely those examining the North American fur trade and those concerned with culture contact studies. Studies from both a materialist and a more behavioral or socially informed perspective and at multiple scales, the local to the global, may find utility in data included here.

#### **Fur trade studies**

A large body of fur trade literature exists and the period remains of interest to historical archaeological study of the region (see Chapter 1). Further typological comparative analysis with other Pacific Northwest fur trade sites may help refine the understanding of material signatures relating to the origin of fur trade goods, i.e., maritime fur trade versus the terrestrial trade and even specific fur trade companies. While Cromwell (2006) undertook comparative studies of ceramics from multiple Columbia River fur trade sites, expansion of such studies to include other artifact classes will result in new data sets that may illuminate patterns in material culture. Such patterns may yield new information on fur trade operations and supply dynamics. This could also be applied to further comparison of contact period Native occupied site and lead to a better understanding of inter-tribal trade and power dynamics during this period where major changes to Native lifeways were initiated.

#### **Culture Contact Studies**

Middle Village represents the earliest period of direct contact and incorporation of Euroamerican introduced material culture among the Natives of the Lower Columbia. As such, the site has the potential to inform on the initial responses to and negotiation of new this cultural milieu by its Native residents. Novel interpretations of the material record highlighting the social actions and informed choices of the Lower Chinook in forming that record can correct past interpretations of the contact period.

In the past, the archaeology of the culture contact, including fur trade contexts, has focused on the Euroamerican perspective and largely ignored the Native. Indigenous peoples have been portrayed as passive recipients of Euroamerican culture and not as autonomous agents actively participating in exchange networks. Such interpretations do not seem accurate given the circumstances of the early fur trade on the Lower Columbia as recorded by historic observers (see Chapter 2). At the time of contact, the Lower Chinook were already part of a wealth-based social structure with vast trade connections. Adoption of introduced goods may have privileged social over functional reasons and occurred on the terms dictated by the Lower Chinook as is expressed in the writings of early Euroamerican traders. More recent interpretive frameworks in archaeology seek to uncover the agency of Native actors in situations of cultural contact and colonial encounters by examining archaeological evidence of the Native's negotiation, selective adoption (and rejection), and reinterpretation of new forms of material culture and ideologies through such actions as preserving traditional technologies, subsistence practices, and ceremonies (Lightfoot 1995, Silliman 2001, 2005; Voss 2008, Wilcox 2009). The term culture contact studies (Lightfoot 1995) has been given to studies that apply principles of social theory and use a multidisciplinary approach to understand patterns in the material record resulting from such interactions. Culture contact archaeology emerged as a research paradigm incorporating the tenets of postcolonial and practice theory. These theories emerged as revisionist researchers became interested in reexamining the effects of the expansion of Western nations on Native peoples (Silliman 2005, 56). Archaeological practices are well-suited to highlighting inconsistencies between written and material records. The material data produced by archaeological studies and the long-term and multi-scalar scope provide useful tools in refuting the claims of the colonial narrative. Studies using this framework attempt to rectify the faulty assumptions and biases of the acculturation model. Such studies recognize individual agency and move away from generalizing and normative explanations of culture change.

Studies, some specific to the Northwest Coast of North America, have emphasized Native agency in the selective adoption and redefinition of Euroamerican goods by Native peoples in order maintain traditional cultural practices and ideologies (Cole and Darling 1990; Marshall 1993; Martindale 1999; Rahn 2003). Due to the lack of apparent technological advantages of some introduced goods, interpretations focused on social and ideological motivations of the

highlight the “social meaning of things” (Komter 2005) or the meanings that objects are given by their users. Previous study of ceramic adoption on the Northwest Coast found ceramics were adopted to fulfill traditional social needs over any practical functional consideration. For example, vessel forms were preferred that could hold traditional foods and in visually impressive patterns that would reinforce traditional status displays (Cabak and Loring 2000; Marshall and Maas 1997).

In light of this, aspects of ceramic analysis used in this study were designed to capture such features as vessel form and decorative type preference. While not the focus of this study, it is hoped that these data can be incorporated into future research aiming to explore culture contact from the Native perspective, either as a local example or more globally.



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## APPENDIX A: BEAD TYPOLOGY

<b>Bead Type</b>	<b>Fort Vancouver Type (Ross 1990)</b>	<b>DeCorse Type (DeCorse 2009)</b>	<b>Description</b>	<b>Middle Village Count</b>	<b>Fort Astoria/George Count</b>
<b>Type 1</b>	1003	2	Glass, drawn, simple, hot tumbled, short cylindrical to barrel-shaped, length: 1.87-4.1 mm, diameter: 2.27-4.28 mm, dull to shiny, white to light yellowish gray,	38	6
<b>Type 2</b>	1034, 1035	17	Glass, drawn, compound, cylindrical with ground facets, length: 7.38-7.54 mm, diameter: 8.29-8.69 mm, shiny, opaque, bright Dutch blue on opaque light Dutch blue,	2	1
<b>Type 3</b>	1074, 1075	11, 12, 13, 14	Glass, drawn, simple, hot tumbled, oblate, length: 1.43-4.8 mm, diameter: 2.48-4.5 mm, dull to shiny, transparent to translucent, turquoise to cerulean blue,	118	-
<b>Type 4</b>	1063	9	Glass, drawn, simple, hot tumbled, barrel-shaped, length: 2.93 mm, diameter: 2.87 mm, shiny, transparent, medium blue, n=1	1	1
<b>Type 5</b>	1094	4	Glass, drawn, simple, hot tumbled, oblate, length: 2.13-2.54 mm, diameter: 3.14-3.53 mm, shiny, transparent, colorless	3	-
<b>Type 6</b>	2002, 2018, 2037, 2042, 2056	25, 30, 36, 43	Glass, wound, simple, oblate to round, length: 2.27-6.2 mm, diameter: 3.9-6.4 mm, dull to shiny, opaque to transparent, turquoise to medium shadow blue	234	3
<b>Type 7</b>	2003	36, 43	Glass, wound, simple, ellipsoidal, length: 11.05 mm, diameter: 8.3 mm, dull to shiny, opaque, medium to bright blue	2	-
<b>Type 8</b>	2007	37, 38	Glass, wound, simple, oblate, length: 4.22-5.35 mm diameter: 5.41-6.81 mm, shiny to dull, transparent, cerulean blue	13	-
<b>Type 9</b>	2013	47	Glass, wound, simple, cylindrical, hot tumbled, length: 5.9-6.44 mm diameter: 4.38-4.62 mm, dull to shiny, translucent to transparent, medium blue	5	-
<b>Type 10</b>	2016	18	Glass, wound, simple, globular to oblate, length: 5-10.94 mm, diameter: 10.66-12.48 mm, dull, opaque, white	15	-
<b>Type 11</b>	2022	43	Glass, wound, simple, oblate, length: 9.57-9.81 mm, diameter: 11.11-11.96 mm, dull, translucent, royal blue	4	-
<b>Type 12</b>	2023	33, 35, 40	Glass, wound, simple, oblate to round, length: 7.74-8.67 mm, diameter: 8.12-9.65 mm, dull to shiny, opaque, medium to bright blue	13	-
<b>Type 13</b>	2024	60	Glass, wound, complex, ellipsoidal, length: 14.53 mm, diameter: 8.36 mm, dull, transparent, navy blue with white floral decoration	1	-

<b>Bead Type</b>	<b>Fort Vancouver Type (Ross 1990)</b>	<b>DeCorse Type (DeCorse 2009)</b>	<b>Description</b>	<b>Middle Village Count</b>	<b>Fort Astoria/George Count</b>
<b>Type 15</b>	2052	25	Glass, wound, simple, oblate, length: 7.04 mm, diameter: 7.65 mm, shiny, opaque, bright navy	1	-
<b>Type 16</b>	2065	46	Glass, wound, simple, cylindrical, hot tumbled, length: 6.46-8.18 mm, diameter: 5.12-6.9 mm, dull to shiny, opaque, medium blue	9	-
<b>Type 17</b>	no correlates	17	Glass, drawn, simple, cut end, cylindrical cane, length: 22.84-32.41 mm, diameter: 7.14-7.92 mm, shiny, transparent, royal blue	4	-
<b>Type 18</b>	no correlates	6	Glass, drawn, simple, cylindrical, length: 8.5 mm, diameter: 3.64 mm, dull, opaque, dark medium blue	1	-
<b>Type 19</b>	no correlates	7	Glass, drawn, simple, hot tumbled, barrel-shaped, length: 4.03 mm, diameter: 4.8 mm, dull, opaque, medium blue	1	-
<b>Type 20</b>	no correlates	8	Glass, drawn, simple, hot tumbled, cylindrical, length: 3.46 mm, diameter: 2.16 mm, dull, opaque, medium blue	1	-
<b>Type 21</b>	no correlates	10	Glass, drawn, simple, hot tumbled, oblate, length: 7.69 mm, diameter: 8.96 mm, shiny, opaque, bright blue	1	-
<b>Type 22</b>	no correlates	15	Glass, drawn, compound, cylindrical, length: 15.32 mm, diameter: 5.6, dull, opaque brick red on transparent colorless	2	-
<b>Type 23</b>	no correlates	16	Glass, drawn, compound, short cylindrical, length: 2.35-2.7 mm, diameter: 2.6-3.85 mm, dull, opaque brick red on transparent colorless	1	-
<b>Type 24</b>	no correlates	20	Glass, wound, simple, ellipsoidal, length: 3.95 mm, diameter: 3.81 mm, dull, translucent, taupe	2	-
<b>Type 25</b>	no correlates	22	Glass, wound, simple, oblate, length: 5.94-6.83 mm, diameter: 6.37-7.96 mm, shiny, opaque, light gold	5	-
<b>Type 26</b>	no correlates	26	Glass, wound, simple, oblate, length: 6.83 mm, diameter: 8.88 mm, dull, transparent, dark medium blue	1	-
<b>Type 27</b>	no correlates	28	Glass, wound, simple, ellipsoidal, length: 7.55 mm, diameter: 4.4 mm, dull, translucent, royal blue	1	-
<b>Type 28</b>	no correlates	29	Glass, wound, simple, ellipsoidal, length: 2.84-4.08 mm, diameter: 2.46-4.13 mm, dull, translucent, blue, degraded	4	-
<b>Type 29</b>	no correlates	31	Glass, wound, simple, globular, length: indeterminate, diameter: indeterminate, transparent, bright blue	1	-
<b>Type 30</b>	no correlates	32	Glass, wound, simple, globular, length: indeterminate, diameter: indeterminate, dull, opaque, medium blue	2	-

<b>Bead Type</b>	<b>Fort Vancouver Type (Ross 1990)</b>	<b>DeCorse Type (DeCorse 2009)</b>	<b>Description</b>	<b>Middle Village Count</b>	<b>Fort Astoria/George Count</b>
<b>Type 32</b>	no correlates	50	Glass, wound, simple, oblate to ellipsoidal, length: 3.03-3.82 mm, diameter: 3.87-4.34 mm, dull to shiny, transparent, bright green	3	-
<b>Type 33</b>	no correlates	51	Glass, wound, simple, ellipsoidal, length: 5.07 mm, diameter: 4.61 mm, dull, translucent, bright green	1	-
<b>Type 34</b>	no correlates	52	Glass, wound, simple, ellipsoidal, length: 6.57 mm, diameter: 5.05 mm, dull, transparent, ruby red	1	-
<b>Type 35</b>	no correlates	54	Glass, wound, simple, ellipsoidal, length: 3.64 mm, diameter: 3.69 mm, dull, opaque, black	1	-
<b>Type 36</b>	no correlates	56	Glass, wound, complex, ellipsoidal, length: indeterminate, diameter: indeterminate, shiny, transparent, cerulean blue with stripes of robin egg blue	1	-
<b>Type 37</b>	no correlates	57	Glass, wound, complex, oblate, length: 9.76 mm, diameter: 11.34 mm, dull, opaque, white transparent ruby red bands	1	-
<b>Type 38</b>	no correlates	58	Glass, wound, complex, oblate, length: indeterminate, diameter: indeterminate, dull, opaque white with eyes of colorless glass with gold on opaque dark green	2	-
<b>Type 39</b>	no correlates	59	Glass, wound, complex, ellipsoidal?, length: 12.96 mm, diameter: 8.48-8.72 mm dull, opaque, white band of colorless glass with gold, swirled eyes of transparent navy on opaque white and band of transparent green and opaque white	3	-
<b>Type 40</b>	no correlates	0	Unidentifiable due to deterioration or fragmentary nature	11	-
<b>Type 41</b>	no correlates	no correlates	Glass, wound, simple, globular, length: 6.74, diameter: 6.53, dull, opaque, cinnamon	1	-
<b>Type 42</b>	no correlates	no correlates	Glass, wound, simple, spherical, length: 3.35 mm, diameter: 4.87 mm, transparent, dark medium blue, n=1	-	1
<b>Type 43</b>	no correlates	no correlates	Glass, drawn, simple, hot tumbled, oblate, opaque, length: 3.76 mm, diameter: 3.65 mm, matte white (surface loss?), n=1	-	1
<b>Type 44</b>	no correlates	no correlates	Glass, drawn, compound, cut, cylindrical, length: 5.04 mm, diameter: 4.53 mm, colorless on white, translucent	-	1