AFTER THE FIRE:
THE RESETTLEMENT OF FERRYLAND, POST 1696
(CgAf-02, AREA F)

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by

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Abstract

This thesis examines the archaeological vestiges of an early eighteenth-century domestic structure at the English colony of Avalon at Ferryland, Newfoundland. Ongoing excavations at the site have exposed a number of seventeenth-century structures, clarifying the early evolution of the colony beginning with its settlement in 1621; yet information about the turbulent early eighteenth century has to date remained comparably rare.

In 1696 the colony was attacked and destroyed, the colonists captured and ransomed. Resettlement occurred one year later, but the ensuing period was one of great stress at the colony as its inhabitants struggled to reestablish their earlier economic success amidst continuing attacks on the fishery. This thesis is an examination of post-raid life derived from the archaeological analysis of an early eighteenth-century domestic structure. It provides an opportunity to discuss the growth and development of the colony into the early eighteenth century and to attempt to understand the ways in which the raid and the events that followed the raid changed the social and economic context of life at Ferryland.

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Chapter 1: Introduction

1.1 Background

The English colony of Avalon at Ferryland, Newfoundland, is a site extraordinarily rich both in history and in archaeological remains. Excavations at Ferryland, spanning several decades and continuing today, afford archaeologists a unique opportunity to study the changing nature of social and economic life at a colonial settlement. Prior research at the site has uncovered a number of structures, both domestic and non-domestic, that are clarifying the evolution of the colony beginning with its formal establishment in the early seventeenth century. The colony at Ferryland has a history filled with defining characters and defining events. One such event took place in 1696, when the colony was attacked by de Brouillan and the French and Native soldiers under his command, who burned and destroyed the entire settlement. During the attack, all of the colonists were captured. Those who could be ransomed were sent to the French stronghold at Placentia. The rest were sent in a French ship to Appledore, England (near Bideford in Devon), leaving Ferryland unoccupied for the first time since its founding in 1621. Within a year, the colony was resettled. The early eighteenth century was a period of stress at the settlement, as its inhabitants struggled to rebuild the colony and reestablish its earlier economic success amidst continuing attacks on the fishery. The events of 1696 and the early decades of the eighteenth century impacted the lives of the settlers in profound ways.

While ongoing excavations at Ferryland have produced a detailed understanding of seventeenth-century life in the colony, information about the early eighteenth-century component of the site has been relatively rare. In the summer of 2004, the southeast corner of an eighteenth-century structure was uncovered at Ferryland, apparently utilizing two partially demolished stone walls from surrounding seventeenth-century structures. Archaeological evidence strongly suggested that this structure was occupied following the French raid in 1696, providing an opportunity to study a part of the site's history that is not well understood and, in so doing, expand our understanding of the development of the colony into the eighteenth century.

1.2 Research Questions

The purpose of this research is to document and interpret the character of the English colonial experience at Ferryland during the transitional resettlement period following the abandonment of the site in 1696 and to understand the ways that the 1696 raid and the events following the raid changed the social and economic context of life at Ferryland. To achieve this objective, several basic research questions are posed:

1) When was the structure occupied?
2) What are the structural characteristics and function of the structure?
3) What kinds of activities took place within the structure? Are any activity areas evident?

4) How does this structure compare to those from the earlier occupation at Ferryland and how does this structure relate to the broader growth of the community? What does this tell us about how life at the colony changed following the resettlement?

Each of these questions is addressed, directly or cumulatively, in the ensuing chapters of this thesis.

1.3 Methodology

This research was carried out under the permit of Dr. James Tuck, issued by the Historic Resources Division of the Provincial Department of Tourism and Culture. The excavation was directed, with the guidance of Dr. Peter Pope and under Dr. Tuck's supervision at the site, by the author, who also undertook analysis of the assemblage.

Units were excavated according to conventional Ferryland practice. A one-meter grid system has been established and is used to organize excavations throughout the site (Tuck 1996:25). Excavations followed the natural and cultural stratigraphy of the site according to the Event system wherein each visible layer is assigned an "Event" number, so referred to as a means of emphasizing that each layer is the result of processes occurring as a part of the site's depositional formation (Harris 1979; Tuck 1996:26). Events encourage the excavator to think about the processes by which a particular deposit is formed. The system is particularly useful in understanding the provenience of artifacts and

archaeological features. Events associated with the structure are summarized in Chapter 4.

All soil removed from the site was sifted through 1/4 inch mesh screen or wet-screened through 1/8 inch mesh. The exact location of all artifacts was mapped and recorded, and each artifact was assigned a catalogue number indexed both to site and to archaeological context or event in accordance with provincial law. Significant features were assigned feature numbers and were both mapped and photographed. Artifacts were processed in the field laboratory at Ferryland. Any artifacts requiring conservation were treated both at the Ferryland facility and at Memorial University's conservation lab under the supervision of Cathy Mathias.

1.4 Thesis Organization

The research undertaken in this study is presented in the ensuing chapters according to the following composition.

Chapter 2 outlines the history of Ferryland, beginning with a discussion of the chronology of the early fishery and the seasonal occupation of the site by the Native Beothuk and migrant fishermen in the sixteenth century. I then discuss the permanent settlement of Ferryland in the seventeenth century, detailing the reigns of the Calvert and Kirke families, and examining the nature of life at Ferryland in the seventeenth century. The discussion then moves to a consideration of the French raid of 1696. The historical

background on the conflict is provided, including the economic and strategic motivations behind the French attacks on the Southern Shore, and details are provided for the sequence of attacks which were executed at Ferryland through to 1708.

Chapter 3 details the history of archaeological excavations at Ferryland. It summarizes past and present research at the colony, and introduces the current areas of investigation at the site.

Chapter 4 concentrates on excavations at Area F, beginning first with a discussion of the geographical and formational processes influencing the broader area and the structures encompassed therein. The chapter then focuses on the particular Area F structure that is the focus of this investigation, discussing the strata and events associated with the structure, the nature of the specific formational process and disturbances involved, and the implications of such processes on the archaeological vestiges of the dwelling.

Chapter 5 describes the architectural remains of the structure, detailing the structural characteristics and dimensions of the building, as well as the external and internal layouts. The analysis is framed within the context of eighteenth-century vernacular architecture, and considerations are made of parallels in other domestic structures.

Chapter 6 examines the ceramic assemblage associated with the house. Ware types and their forms and functions are defined, and a minimum vessel count proposed. This study

not only establishes dates for the house, but the chapter also investigates what the ceramics reveal about the social status of the household, and the activities that may have taken place there.

Chapter 7 examines the glass assemblage excavated from the structure. It begins with an analysis of English wine bottles, outlining the development of standardized chronologies, and the various methods of elucidating dates for the vessels. The methodology employed in this thesis is explained and the wine bottle assemblage is then examined in detail. Case bottles, English wine glasses, window glass and pharmaceutical bottles were all recovered from the site. A discussion of each of these glass artifact types is included in this chapter, and analysis of their role in the assemblage follows.

Chapter 8 describes the clay tobacco pipe assemblage. The history of the clay tobacco pipe industry is outlined, the methods available for dating pipes are explained, and the particular methodology used in this thesis clarified. Finally, the assemblage itself is detailed and analyzed.

Chapter 9 is a broad chapter which analyzes the remainder of the artifact assemblages not addressed in Chapters 6 through 8. It is thus aptly titled "Small Finds". It includes an examination of food-related artifacts which are not ceramic, clothing and other artifacts for personal adornment, tools, hardware, fishery-related artifacts, and armaments and ammunition. Because many of these artifacts are metal, a discussion of the preservation

and corrosive forces at work at the Ferryland cite predicates the analysis of the various groups of finds.

Chapter 10 integrates the information gleaned from the analyses of the other chapters into a discussion of life at Ferryland in the eighteenth century. It discusses implications derived from the excavation regarding the social world of the inhabitants of the structure at Area F. It considers broader issues of the economy of North America in the eighteenth century, of Newfoundland as a whole, and of the Southern Shore (a colloquial definition for the south shoreline of the Avalon Peninsula) in particular. Comparative collections are analyzed in an attempt to situate the assemblage from this site within the broader colonial world and to determine the nature of post-1696 life in Ferryland.

Chapter 2: History of Ferryland

2.1 Introduction

The colony of Avalon, nestled in the community of Ferryland, Newfoundland, is located on a major promontory along the eastern coast of the Avalon Peninsula, roughly 80 km south of St. John's (see Figure 2.1).

The modern town of Ferryland has a history of occupation that extends backwards in time more than four hundred years. The first reference to the place is found on Giovanni Verrazano's 1529 map of the world, on which the familiar Newfoundland headland is labeled as "Farilham" (Pope 1986:1). The first notation by the English, in the 1590s, refers to the harbour as "Farillon" (Leigh 1597). Either name can likely be traced as a corruption either of *farelhao*, the Portuguese nomenclature for steep rock or point, or of the French word *forillon*, meaning "cape, or "point" (Pope 1986: 1).

2.2 Early Settlement

2.2.1 The Early Fishery

Shortly after John Cabot's initial highly publicized explorations of "New Founde Land", European crews began to venture across the Atlantic, seeking a foothold in Cabot's promised land. Early exploitation of the rich Newfoundland fishing grounds began perhaps as early as 1502 (Quinn 1977: 125-126). By 1510, European countries were seasonally fishing in the waters off *terre do bacalhau*, or "the land of the cod" (Pope 2004: 15).

Figure 2.1: (left) Map of the east coast of Canada. Newfoundland's Avalon Peninsula referenced; (right) Map of the Avalon Peninsula. Ferryland indicated.

Ceramic fragments excavated from early occupation levels at Ferryland reveal the presence of French, Basque, Spanish, Portuguese, and English West Country fishermen. Well into the mid-sixteenth century, the Newfoundland fishery was dominated by Breton, Norman, French and Basque crews. By the mid 1500s, France and Portugal were each annually sending ships to fish in Newfoundland's waters (Matthews 1973: 69; Pope pers. comm.). Around 1540, the Spanish Basque also became major participants in the migratory fishery, deploying roughly 200 ships to Newfoundland in 1553 (Matthews 1973:70). English efforts in Newfoundland's fishery remained minor until the end of the century. England sustained its demand for salt cod through its efforts in Iceland and Ireland, and had not yet developed an external market.

After 1565, English involvement in the Newfoundland fishery dramatically increased as European economic conflicts severely affected both the Spanish and the Portuguese fisheries. This decline of the Iberian industry meant that England finally had an opening export market to which it could sell its surplus (Matthews 1973:70). England competed furiously with its established European competitors, eventually displacing the Iberian industry entirely (Pope 2004:17). England battled particularly with the French, whose industry was twice the size of the English. Fortunately for England, by the late sixteenth century, much of France's massive contingency had shifted to a "wet" offshore industry, maintaining only their inshore dry-cure fisheries at Placentia, on the South coast of the Avalon Peninsula, and at Chapeau Rouge and Petit Nord on the west coast of the island (Pope pers. comm.). This economic shift in France's transatlantic fishery opened the way

for England to officially dominate much of the inshore niche from the end of the sixteenth century onwards (see Figure 2.2). By the 1600s, the English fishery was firmly established on the Avalon, and the first attempts at permanent settlement quite inevitable.

The early fishery was a shore-based operation, whereby fishermen deployed to the sea in day-to-day expeditions from camps along the shore. The conspicuous Ferryland headland, jutting prominently into the North Atlantic, boasted a harbour with easy access to the fishing grounds, and extensive cobblestone beaches for drying catch. Newfoundland's temperate climate facilitated a dry salt method of curing, and cod quickly became, and remained, the most important export of Atlantic Canada for centuries. It was an ideal staging area for the early migratory fishery. Indeed, undisturbed remains of sixteenth-century temporary campsites found in Ferryland's harbour attest to the presence of early fisheries at the site (Tuck 1996:28).

2.2.2 The Beothuk at Ferryland

Intermingled with the residual fragments of the European fishermen, archaeologists have uncovered evidence of native Beothuk occupation at Ferryland. Beothuk artifacts have been found in Areas B, C and F at the colony of Avalon site. Bifaces, projectile points and a Beothuk hearth have been excavated at these sites. The artifacts have been found in association with sherds of early European ceramic wares, suggesting a concurrent exploitation of the resources at Ferryland during the sixteenth century. While the exact

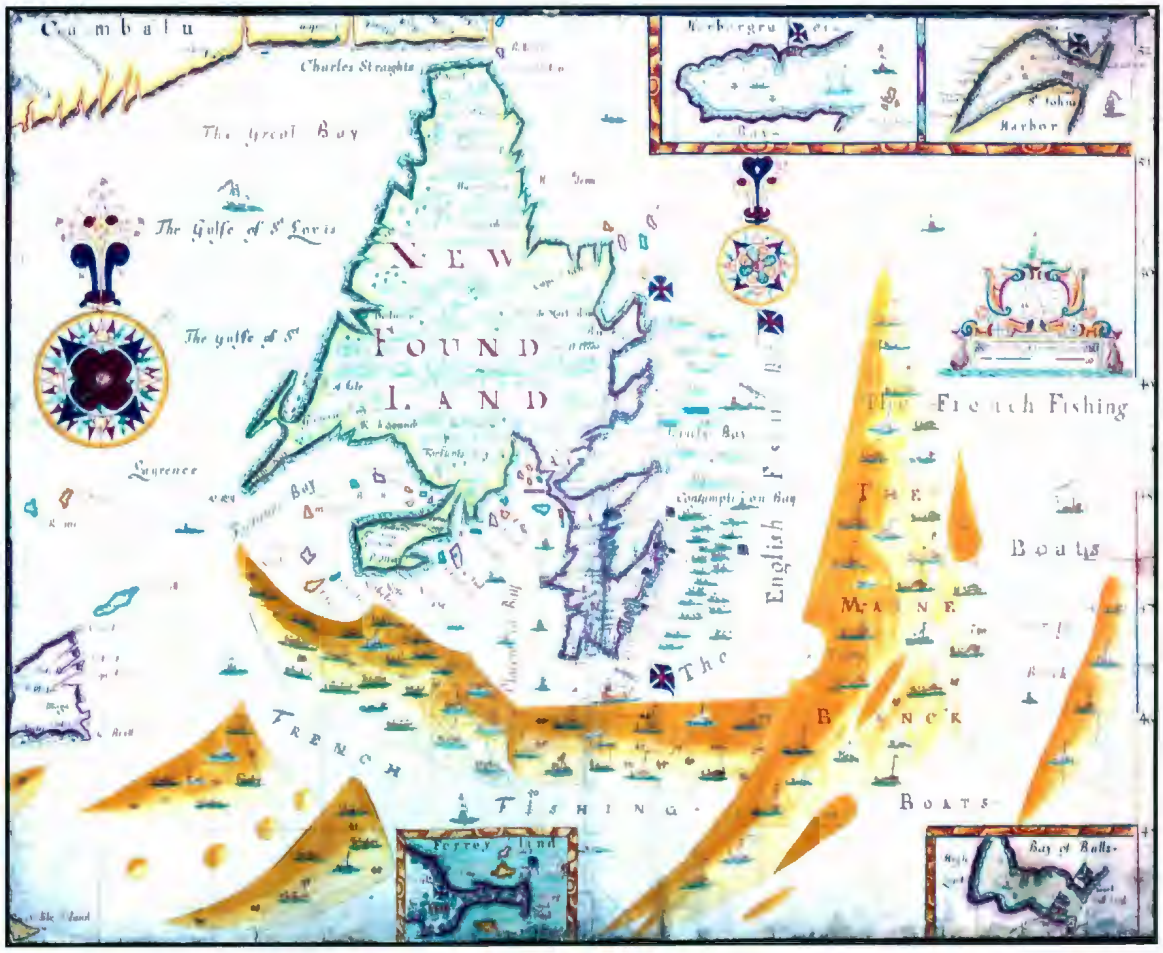

Figure 2.2: New Found Land, by Augustine Fitzhugh. Permission of the British Library.

nature of Beothuk visits to Ferryland are uncertain, it is clear that the Beothuk assemblage at Ferryland does not represent a habitation site. Archaeologists have inferred a scenario involving the scavenging of left-behind European goods, perhaps coupled with some type of sporadic trade with migrant fishermen (Gaulton 2001: 50).

Notably, Beothuk remains have been found in contexts exclusive of any clay tobacco pipe remains, indicating a *terminus ante quem* of no later than 1580 (Gaulton 2001: 27).

2.3 Permanent Settlement at Ferryland in the Seventeenth Century

As England assumed a larger role in Newfoundland's fishery in the late sixteenth century, it rapidly became aware of the need to centralize power in order to maintain its tenuous monopoly on the Avalon. Attempts began to formally colonize the island before England's competitors, particularly France, came to similar conclusions. In the fifty years following John Guy's settling of Cupids in 1610, seven attempts were made to establish colonial plantations in Newfoundland (Matthews 1973:89) (See Figure 2.3). Ferryland is often cited as the most economically successful of these.

In the seventeenth century, Ferryland became the hub of the Province of Avalon, the first attempt of Sir George Calvert (the First Lord Baltimore) to settle in the New World. Calvert purchased the land he was to designate as the Province (between Petty Harbour and Aquaforte) in 1620 from Sir William Vaughan, whose earlier attempts to start a settlement were unsuccessful. Construction of a settlement began on August 4 1621, when Captain Edward Wynne, acting on behalf of Lord Baltimore, arrived in

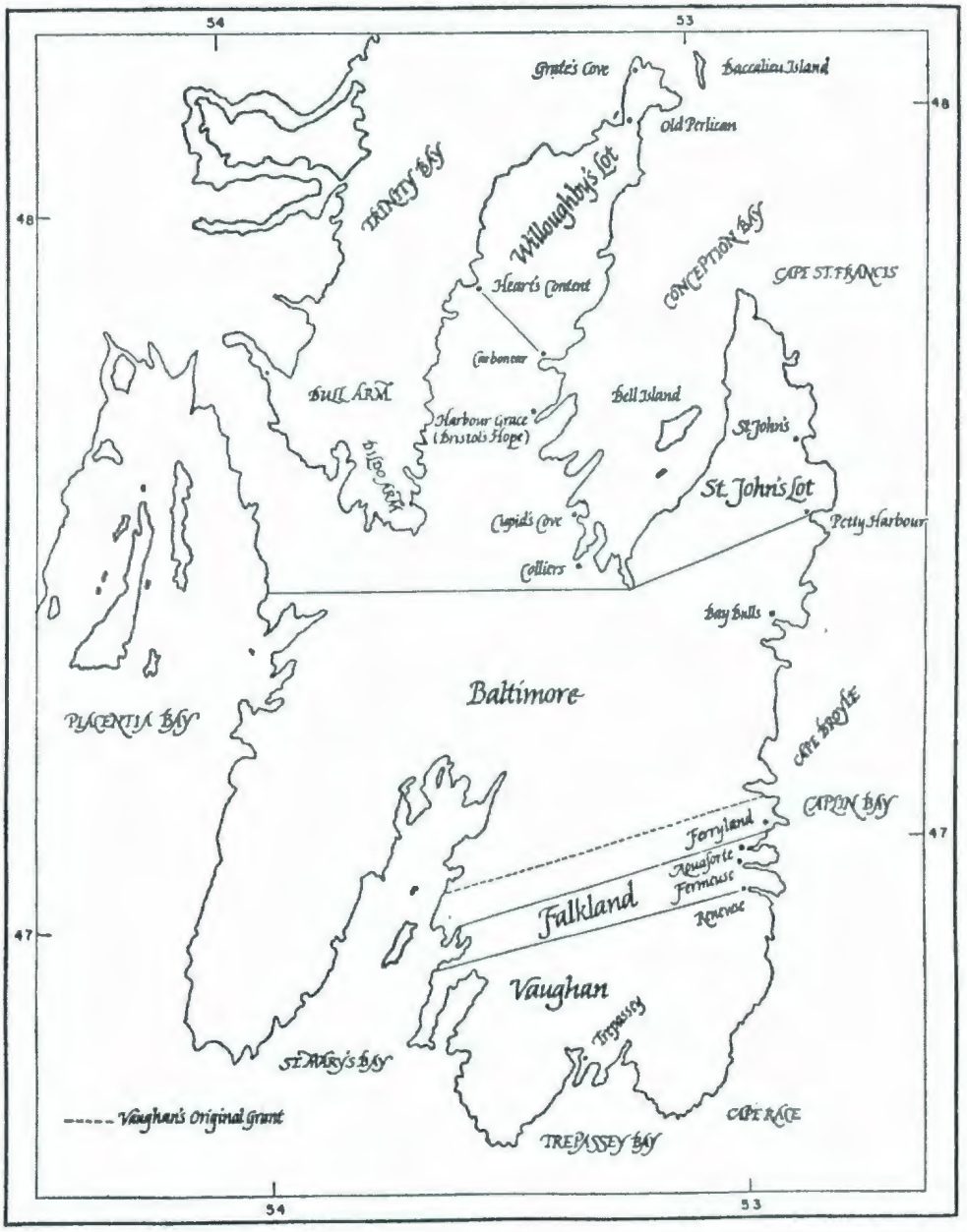

Figure 2.3: Map of the English colonies in Newfoundland (Cell 1969:82)

Newfoundland along with eleven other settlers and erected a series of buildings, including a 44 by 15 foot dwelling with a semi-attached kitchen, as well as a parlour, tenements, a forge, saltworks, a brewhouse, a hen house, a well, a wharf, and a defensive palisade, concentrated around a sheltered inner harbour referred to as "The Pool" (see Figure 2.4). These buildings established the site as a permanent settlement, one that would eventually become the predominant colony in Newfoundland through much of the seventeenth century. The following winter (1622-23), 32 more colonists arrived, including women and children. In 1627, Calvert himself visited Ferryland and brought additional settlers. In 1628, he returned once more with most of his family with the intention of becoming permanent residents of Avalon. Following a winter that was harsher than he had expected, however, Calvert quickly abandoned the colony and its "intolerable cold" for warmer climes, "determined to commit this place to fishermen, that are able to encounter storms and hard weather" (Baltimore 19/08/1629). He left Ferryland in the hands of a trusted representative and traveled further south to visit the Chesapeake where his son Cecil (the Second Lord Baltimore) would eventually establish a colony in Maryland (Tuck and Gaulton 2003:191).

In 1637, a syndicate headed by Sir David Kirke was granted administrative proprietorship of Newfoundland through the close connections of its members with the court of Charles I. In 1638, Kirke, along with his wife Lady Sara, their three sons and a group of about one hundred new settlers arrived in Ferryland to take advantage of this grant. Exploiting Lord Baltimore's absence from the settlement, Kirke quickly evicted the Calvert's

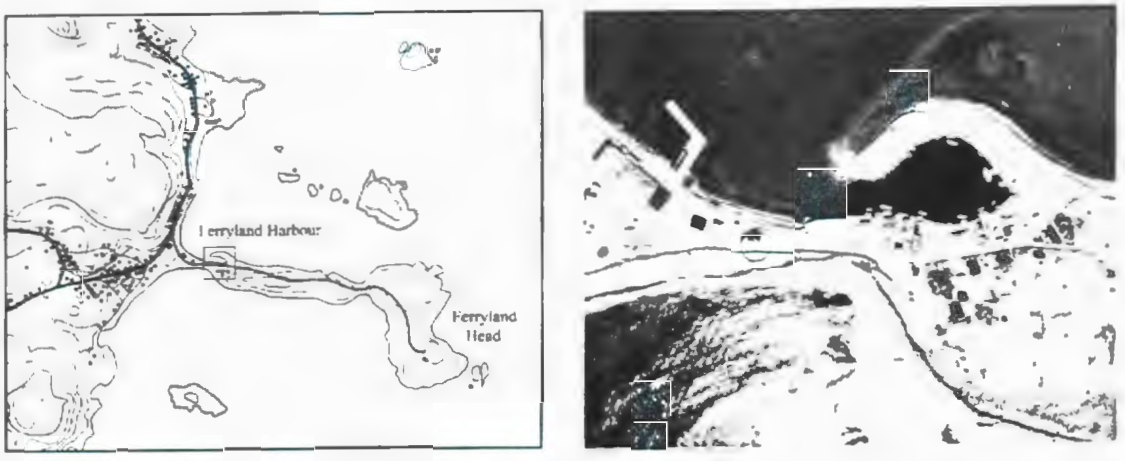

Figure 2.4: (left) Ferryland, Calvert's 1621 colony referenced; (right) The inner harbour known as The Pool (B. Gaulton 2004).

representative, Captain William Hill, and expropriated Ferryland (Pope 2004:32). Kirke and his family took up residence in the mansion house, and Calvert's settlement came to be known as the Pool Plantation (Colony of Avalon Foundation 1999). A series of lawsuits between the Calverts and the Kirkes ensued over the ownership of Ferryland and continued well into the eighteenth century. In 1651, partially as the result of yet another dispute with Calvert, Kirke was called to England for an official inquiry into the administration of Newfoundland and his activities there (Cell 1969:21). Kirke lost proprietorship of Newfoundland and was forced to forfeit his lands and possessions to Cromwell's Commonwealth. He died in prison in 1654. In spite of this, and regardless of the government appointment of John Treworgie as commissioner of the colony in 1653, Lady Sara Kirke and her sons remained at the settlement. Lady Kirke eventually became one of the most successful fish merchants in the area until her death in the 1680s (Colony of Avalon Foundation 1999; Pope 2004). Following the restoration of Charles II in 1660, the Pool Plantation eventually came back under the control of the wealthy and powerful Kirke family.

2.4 The Raids

The community thrived until the third quarter of the seventeenth century, when wars between the European countries spilled over into Newfoundland. Ferryland was subjected to an unopposed attack by four Dutch ships in 1673, and later to a more well-executed attack carried out by the French in retaliation to an earlier attack by the English on Placentia. France was intent upon reasserting its own claims on Newfoundland and on

destroying the English fishery. The French forces, 700 in number, arrived at the colony on September 21 1696 (Williams 1987:33). When the inhabitants of Ferryland refused to swear allegiance to the French king, the soldiers burned and looted the entire settlement (Clappe et al. 1697). The colony was destroyed. During the attack, George, David Jr. and Phillip Kirke were all taken for ransom to the stronghold at Placentia, Newfoundland. David Jr. and Phillip died in prison over the ensuing winter. George perished as well soon after his release, ending the dominance of the Kirke family at Ferryland. During the winter of 1696-97, the colony lay uninhabited for the first time since 1621.

Over the ensuing winter, the former inhabitants of Ferryland petitioned for the support and necessary reinforcements to return to their colony. Estimated losses of the Ferryland planters approached £12,000 (Prowse 1895:221). They begged the crown for help, "that this next season for fishing may not be lost and to regain and defend the said harbour and other be possessed of our places for rebuilding our houses and stages and room for carrying on [the] fishery trade without any hindrance and molestation" (Clappe et al. 1697). After securing St. John's, an English regiment under Colonel J. Gibson traveled south to help secure Ferryland to encourage the resettlement of the colony (Gibson 28/6/1697 cf. Pope 1992:449; Norris 13/11/1698). The French, too few in number and wanting supplies, were unable to maintain their occupation of Ferryland, and the colony was retaken. Enough assistance was granted that the settlers were able to return to Ferryland the following spring, but only scant military reinforcements were offered.

Following several years of peace, France and England renewed their war in 1701. In January of 1705, a second massive attack was launched on the Southern Shore by the French, who "burnt and distroyed all the houses storehouses goods &c. whatsoever in St. John's and marched South as far as Fair Ellen [Ferryland] carrying away as prisoners all the inhabitants [...] committing the like barbarity as they had done at St. John's" (Campbell in Prowse 1895: 262). Once again the settlers of Ferryland were captured, deported, or ransomed. One French soldier's description of the 1705 raids on the English shore states that "all the settlements on the coast of Newfoundland [have been reduced] to such a great degree that there is no doubt that they could or even would dare to re-establish themselves as long as [Queen Anne's] war lasts" (Costebelle 1705 in Proulx 1979:46).

In spite of the optimism of Costebelle's assessment, and the destructive razing of the colonies, the English Shore did indeed prevail. Again the settlers of Ferryland begged the crown for increased protection, which once more did not come (Strange et al. 1706). Ferryland was left to its own defenses. When the French launched yet another attack on the Avalon in 1708, the inhabitants of Ferryland took matters into their own hands, fortifying themselves on Bouys Island, a small island off Ferryland head (Amiss et al. 1709). The settlers built barracks, batteries and multiple defensive works on the island. They brought their livestock and as much of their belongings as they could and banded together on the island, refusing to surrender to their attackers. In fact, they refused even to admit to a flag of truce (Prowse 1895:249). In retaliation, the French soldiers once

again burnt the colony to the ground, but this time, the tactics employed by the Ferrylanders saved them from having to again endure a prolonged period of hardship. The bulk of the effort had been repulsed (O'Flaherty 1999:60). They were able to return to the colony immediately and once more rebuild their lives.

In 1713, Queen Anne's War finally ended, culminating with the Treaty of Utrecht. The provisions of the treaty stipulated that France relinquish the Island of Newfoundland to the British:

> Article XIII: The Island called Newfoundland, with the adjacent islands, shall, from this time forward, belong of right wholly to Great Britain; and to that end the town and fortress of Placentia, and whatever other places in the said island, are in the possession of the French, shall be yielded and given up .... Moreover it shall not be lawful for the subjects of France to fortify any place in the said Island of Newfoundland, or to erect any buildings there, besides stages made of boards, and huts necessary and usual for fishing and drying of fish; or to resort to the said island beyond the time necessary for fishing and drying of fish. (Great Britain and France, Treaty of Utrecht 1713)

The only rights France maintained within the boundaries of Newfoundland was the entitlement to fish seasonally off the French Shore between Cape Bonavista and Point Riche, waters that the French had been exploiting since the early migratory fishery was established in the 1500s. Newfoundland was back under the control of the English, and

its colonials safe from further collateral damage by the wars. A long period of peace followed the signing of the treaty, but the economy of the colonies had suffered greatly during the Anglo-French wars. Newfoundland's population decreased rapidly during Queen Anne's reign, from a population of 1700 to 1800 residents at the end of the seventeenth century to 1130 in 1705 (Pope 2004: 201-202; Matthews 1973: 123). Many of those planters that chose to remain were heavily in debt. The province was in a state of depression that would last until the 1720s: Newfoundland would not regain its earlier economic prosperity until well into the middle of the eighteenth century. Labour and support from England for the Newfoundland fishery remained in short supply throughout the early- and mid- eighteenth century due to a rash of new conflicts with Spain and France in Europe (Head 1976:93). It was not until the Irish migration to Newfoundland began in earnest in the 1740s that Ferryland and the surrounding areas on the Avalon once again began to prosper.

Chapter 3: History of Excavation

3.1 Introduction

This chapter summarizes the history of archaeological investigation at the Ferryland site (CgAf-2). It begins by detailing the history of the investigations, from their beginnings in the late nineteenth century, up to current excavations taking place under the direction of Dr. James Tuck and Dr. Barry Gaulton of Memorial University's Archaeology Unit. Recent excavations are reviewed, and the details of each designated excavation area discussed at length.

3.2: Past Archaeological Investigation at Ferryland

Archaeology at Ferryland began in the late nineteenth century, when, based upon information gleaned from historical records, the antiquarian M.F. Howley unearthed several artifacts while attempting to pinpoint the coordinates of the original settlement. In 1937, entomologist Dr. Stanley Brooks from the Carnegie Institute in Pittsburgh excavated several test pits around "The Pool" and along the nearby mainland to the west, concluding that the colony was located at the western end of a beach connecting the mainland with the Ferryland Downs (Tuck 1996:24). In 1959, J.R. Harper excavated a six by six foot test unit on land near the south shore of "The Pool" on behalf of the Historic Sites and Monuments Board of Canada. Harper uncovered deteriorated wood, wrought iron nails, bottle glass, ceramics, and mid-to-late seventeenth-century pipe bowls. From these artifacts, Harper concluded (erroneously, as later excavations would demonstrate) that he had discovered part of the mansion house (Harper 1960:111).

In 1968, the Memorial University Archaeology Unit began a series of excavations in an attempt to locate the structures referenced in historical documents associated with the colony. Beginning with a series of test pits beneath where the Colony Café sits today, the excavations unearthed a slate drain, as well as some seventeenth-century artifacts (Tuck 1996: 24). In the 1970s, Robert Barakat returned to conduct some brief excavations in one area just east of Harper's unit and on Bouys Island. He too produced some conjectural hypotheses about the location of the mansion house. In the mid-1980s, Dr. James Tuck began a new series of excavations at Ferryland to locate the colony of Avalon. Excavations were carried out over three years, in Areas A-D (see Figure 3.1). While seventeenth-century traces were found in all locations, Areas B and C in particular yielded a broad range of artifacts. In addition, a well-preserved stone forge was found, as well as slate walls standing more than 50cm high. In spite of the promise afforded by these finds, the site was reluctantly backfilled in 1986 because of a lack of funding for a large-scale project (Tuck 1996:24).

Excavations resumed in 1992 following the establishment of the Canada-Newfoundland Tourism and Historic Resources Cooperation Agreement, which provided the University with the necessary funding to conduct a multi-year investigation of the site. Since then, excavations have continued for up to twenty weeks each summer. To date, eight areas have been investigated, and these have proven that the settlement at Ferryland was much

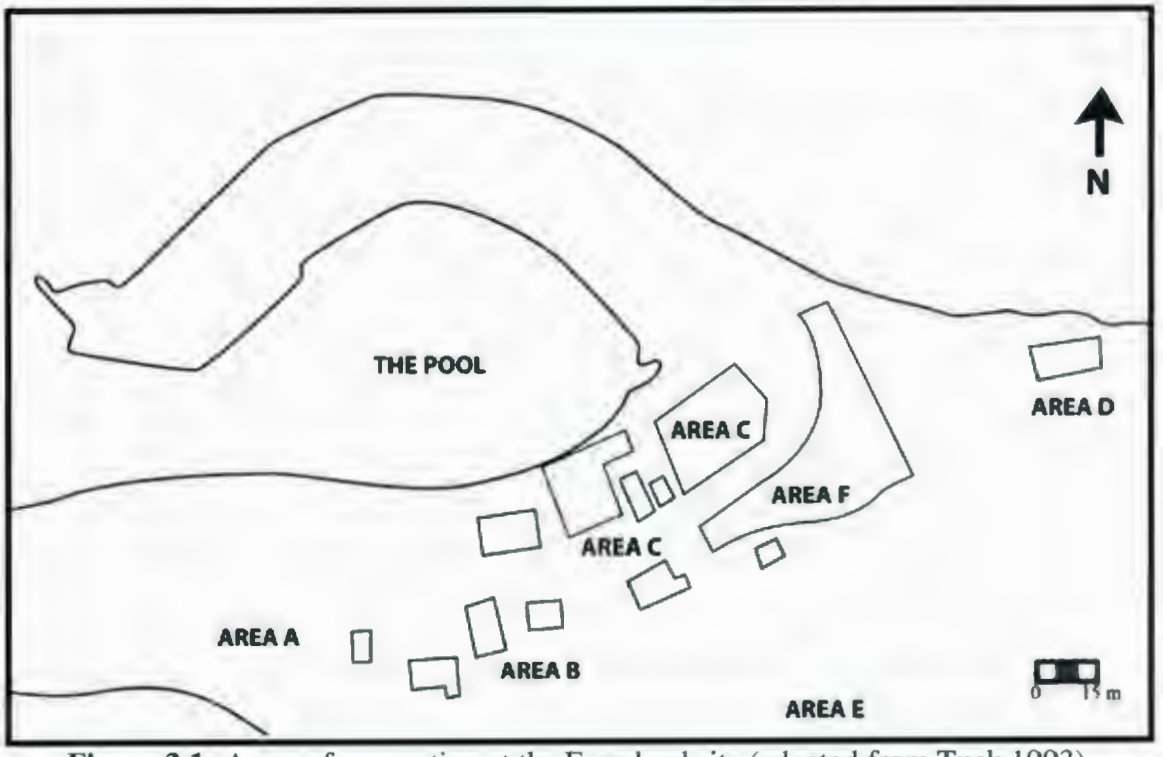

Figure 3.1: Areas of excavation at the Ferryland site (adapted from Tuck 1993).

more substantial than originally assumed. The colony had a large quay with several waterfront buildings located along the inner harbour. To the south, a series of dwellings, tenements, outbuildings and a forge have been excavated. A cobblestone street, 13 feet wide and 400 feet long, spans the distance of the original colony's boundaries and connects the two rows of buildings to one another. Significant discoveries continue to occur today.

3.3 Excavation Areas at Ferryland

Area A

Area A is the site of a small test excavation which took place in 1984 at the western end of The Pool. These tests yielded a gravel beach deposit, as well as an assemblage of seventeenth-century ceramics, clay tobacco pipes and iron nails. No structural remains were found, possibly because the excavations were not deep enough (Tuck 1993: 297). Area A will likely be reopened for further exploration in the future.

Area B

Area B was first excavated in 1984, with archaeologists discovering a rich deposit of refuse, fill, and collapsed structures (Tuck 1996:27). With artifacts dating from the sixteenth, seventeenth and eighteenth centuries, the area was furthered examined in the early 1990s. Traces of the indigenous Beothuk Indians were uncovered in the early levels of the site, including stone tools and flakes of local chert, as well as several small hearths with associated burnt bone, charcoal and seed remains (Tuck 1996: 27). Below

the layers of Beothuk activity were found well-preserved remains from European early migratory fishermen. These remains include European-built hearths, clearly distinct from the simple cobble hearths of the Beothuk, as well as a scatter of iron artifacts and ceramic sherds of Portuguese and Spanish Basque origin (Tuck 1996:28). Two layers of roughly-laid cobblestone beach rocks cap off the early occupations. These layers have been interpreted as artificial beaches upon which to dry excess catch when the spatial limitations of the natural beach were exceeded (Tuck 1996:29). Associated artifacts, such as an abundance of North Devon coarse earthenwares, suggest that these features are likely the products of West Country seasonal fisherman. An absence of clay tobacco pipes indicates a *terminus ante quem* of no later than 1580 for these early levels (Gaulton 2001: 27).

Atop the layers of early seasonal occupation lay a rich concentration of slag, coal, scrap iron and a few iron tools, the remains of a seventeenth-century forge. The building was excavated in 1984, 1986 and 1994. Located at the western edge of the settlement, the forge was of stone construction and measured 1.2 m by 1.8 m (Carter 1997:73). It was very well preserved, and archaeologists were able to discern the various components and work areas of the blacksmith shop, which included the forge itself, as well as such items as the anvil, bellows, a slack tub and tools including files, bench shears, a nail header, cold chisel and a hand vise. It was likely among the first buildings constructed at the colony, and was in use from 1622, when Captain Edward Wynne describes it in a letter to Calvert, until circa 1650 (Carter 1997:86; Pope 1986:91).

Excavations expanded northwards in 1995, where archaeologists uncovered the remains of the cobblestone "prettie street" described by Wynne in a 1622 letter. Approximately 9 meters of the 4 meter wide road was exposed, which roughly parallels the orientation of the modern road on Ferryland head (Tuck 1996: 31). A timber-framed structure was also found, intruding over the edge of the cobblestone street. This structure has been analysed by Nixon (1999). It dates from 1660 to 1696, when it was destroyed by fire as a result of the efforts of the raiding party.

Area C

Area C makes up a part of the waterfront of the original colony. Excavations began with exploratory trenches in 1986, and continued from 1992 to 1995. At the lowest levels of the site are remains associated with and analogous to those found at the earliest levels of Area B (Tuck 1996:32). Most of Area C has a thick sterile fill event upon which a complex of stone buildings was constructed. This complex has been analyzed in detail by Gaulton (1997). Structural remains are numerous, and include stone walls, a seawall, privy, a covered drain, and a high concentration of roof slates (Gaulton 1997:1). The thick stone seawall borders the northern edge of the site in this area, which the early colonists built as they attempted to reclaim land from the encroaching sea (Gaulton 1997: 5). To the north-west of the seawall, the privy was constructed: to the east of the privy and parallel to the seawall are the remains of the settlement's storehouse. The stone storehouse measured 4.8 m wide by 16.8 m long, and was partially floored in flagstone

(Gaulton 1997: 63). The buildings were in use until their destruction in the Dutch raid of 1673.

Also within this area is a second construction sequence dating to the period following the Dutch raid. The first destruction layer was capped by a layer of fill, and reuse was limited due to the nature of the destruction (Gaulton 1997: 67). This second phase of construction features the remains of a substantial stable/cowhouse, which was erected just south of the earlier stone storehouse. The cowhouse structure was a two-bayed building featuring a cobblestone floor and either a wood-shingled or a thatched roof (Gaulton 1997:68). The northeast end of the eastern bay features a slate-floored alcove/animal stall (Gaulton 1997:68). The western bay of the building likely functioned as a storage barn or shed (Gaulton 1997:70). A capped drain runs beneath the stable and out to The Pool. The structures at Area C remain in a remarkable state of preservation.

Area D

Site D is located on a flat terrace far to the east of The Pool, and represents the likely eastern margin of the settlement. In the mid-1980s, a nineteenth-century structure was exposed during a Memorial University field course (Tuck 1993:306). In 1993, the area was further excavated and lower levels yielded seventeenth-century artifacts in a disturbed context, below which lay remains providing the first solid evidence of a domestic complex at Ferryland (Tuck 1996: 36). The complex consists of the burnt remnants of a substantial seventeenth-century timber-framed structure (roughly 12 m by

5.3 m) with a large stone fireplace, and an associated stone-lined well. This structure and its associated artifacts have been studied in detail by Crompton (2001). Artifact analysis combined with a lack of destruction contemporary with the Dutch raid, suggests that the construction of the house began after 1673 (Crompton 2001:262). Two William III coins date the burn destruction of the house to the 1696 attack, making this structure contemporary to that at Area C (Crompton 2001:232-33). The stone-lined well lay just to the south of the house. It is roughly 76 cm in diameter and extends 7.6 m below the surface. While an associated wellhouse was apparently also destroyed in 1696, the well itself appears to be in use until it was deliberately filled in the late eighteenth century (Crompton 2001:30).

Area E

Within the boundaries of Area E, archaeologists have uncovered the remains of a four by ten meter dwelling. The house features a hall and parlour, a second-floor loft and a later addition for storage along its southern wall. Due to its conspicuously skewed assemblage of tobacco pipes, and drinking vessels, the structure has been interpreted as an eighteenth-century tippling house (Leskovec 2006). Beneath this structure lay the remains of the colony's original defensive works, along with the remains of renovated fortifications built in 1694 (Tuck 1996:39).

In 1622, Captain Edward Wynne reported that he had constructed a defensive palisade at the southern limits of the site composed of taff, sharpened tress fastened to a frame of

posts and rails with spikes and nails (Pope 1993:12). At a depth of more than 2 m, a sod-walled platform was exposed, lying atop a sterile layer. The structure is likely a part of Wynne's original fortifications, and due to its view of the harbour entrance, has been interpreted as a possible gun platform (Tuck 1993:309). Atop these earlier defenses are the remains of the 1694 renovation of the colony's fortifications, undertaken by Captain William Holman in preparation against a growing French threat. The remains consist of a large mound measuring 8 m by 15 m. The mound is comprised of earth and large rocks, and is lined with post moulds along its southern edge. A pair of postmoulds and an iron hinge lay adjacent, likely reflecting a gate to the defenses (Tuck 1993: 309).

Excavations at Area E to date have not exposed the defensive structures in their entirety. Further excavation is merited.

Area F

From 1997 to 2001, excavations focused on Area F, a large zone that encompasses the eastern end of the colony. It is an area with extremely well-preserved architecture and vast quantities of artifacts (Tuck and Gaulton 2001:97). Area F has exposed more of the "prettie street" partially uncovered in Area B, which runs through Area F to its termination just before the large north-south running defensive ditch which marks the eastern boundary of the original colony and abuts Area E. To the south, the ditch connects with a large earthenwork, likely a bastion built at the southeast corner of the colony (Carter et al. 1998: 53-54). Excavations also exposed a rampart and the remains

of a wooden bridge leading from the end of the cobbled road across to the other side of the ditch (Carter et al. 1998: 55).

Just south of the cobblestone street and to the east of the colony's defensive works, the remains of a timber-framed dwelling house have been uncovered measuring approximately 6.4 m by 16.2 m and containing two fireplaces. Based on the presence of several clay pipe bowls bearing the initials DK, this structure has been interpreted as belonging to David Kirke himself (Gaulton 2006:167). In addition to the Kirke house, several other structures have been uncovered to the north and west of the larger dwelling. The building at the northwest end has been interpreted as a small dwelling. At the southwest corner of the dwelling, and to the west of the Kirke house is another building, the function of which remains to be determined. Two other adjacent structures were located in the summer of 2004. The fourth structure, utilizing two pre-existing stone walls is the subject of this thesis. Artifacts date to the turn of the eighteenth century, and the reuse of existing and partially demolished walls suggest it was built shortly after the French raid of 1696. It is one of few structures offering insight into the early eighteenth-century component of the site.

Area G

Area G is located on the north side of the "prettie street". The seawall first revealed in Area C continues to the west into Area G. Within Area G, this western portion of the

wall veers on a northward path, which results in the creation of a key-hole shaped slipway in The Pool.

Excavations in 1996 and 1998 uncovered a series of wooden posts abutting the seawall, assumed to have served as mooring points for boats. An extensive cobblestone exterior pavement leading into Area C and a slate drain extending southwards and terminating at the seawall were also identified at this time (Tuck and Gaulton 2001:96-97). In 2002, excavations resumed in Area G and archaeologists identified the remains of what might have been the colony's first wharf (Tuck and Gaulton 2003:202). This structure appears to have been initially constructed by sinking sand- and rock-filled barrels to form the outward edge of the wharf, and infilling behind them primarily with wood chips. Some years later, an eight-foot wide stone wall was built outside of the barrels in order to create a more substantial wharf. This too was infilled with wood chips and was then capped with a layer of sand and river gravels. This reconstruction extended the wharf an additional twelve feet into The Pool (Tuck and Gaulton 2003:203).

Area G also has distinct layers of seventeenth-century fill, sometimes up to five feet deep, which was brought down from the hillside to the south in an effort to reclaim land from The Pool. During this reclamation project, more than 1200 square meters of land was reclaimed (Tuck and Gaulton 2003:204).

Chapter 4: Excavations at Area F

4.1 Introduction

Wagner et al. (1998:80) note that the types of anthropogenic influences which have played a role in Ferryland's history (i.e.: changes in land use, agriculture and industrialization) have had a dramatic effect on depositional layers of soil at the site. Such influences have directly resulted in the particular stratigraphic deposition at Area F. What follows is a discussion of the soil composition, geographical details and site formation processes associated with Area F in general, and a more specified discussion of the historical formation processes which resulted in the stratigraphy of the structure under study. Following this, the stratigraphic events are listed and summarized to facilitate a better understanding of the context from which the structure was excavated.

4.2 Area F Soil Composition and Formation Processes

4.2.1 Geography and Implications of Geographical Processes

In order to fully understand the nature of the deposit at Area F, the features need to be situated within the context of geographical location, as well as the natural processes which contributed to its formation. The site is located in the heart of the early Ferryland settlement. It is positioned directly atop a seventeenth-century exterior courtyard which lays to the east of one seventeenth-century structure, and to the north of a second seventeenth-century building (see Figure 4.1). The builders reused walls from these two structures in the construction of the house in order to create its eastern and southern borders. Because of its situation in the landscape, Area F is exposed to the elements.

Figure 4.1: Photograph of Structure 15 (foreground) and surrounding area (Tuck)

Located across the street from The Pool and at the northern base of a hill that leads out to the Ferryland Downs, Area F is open to the ocean along its northern side and is also vulnerable to downhill erosion in the south. Its exposure to the ocean means that the area has little protection from wind. Its position most of the way down the hill has led to an accumulation of overburden: the structure under analysis lay beneath one to one and a half meters of soil.

4.2.2 Soil Chemistry and Implications for Burial Environment

The nature of the burial environment of the structure at Area F is as much a function of soil chemistry as it is of geographical and historical processes. The proximity of Area F to the ocean's edge has implications for the preservation of artifacts excavated therein. Because Ferryland is near the Atlantic Ocean, and because annual rainfall is high in the area, soil at the site has a high water to artifact ratio (Mathias 1998: 26). Ferryland as a whole contains a range of burial environments, resulting from differences in particle composition as well as chlorine variation and variation in exposure to salt spray and sea water penetration (Mathias 1998: 177). Local soils at the site have been described as acid to extremely acid and wet (Mathias 1998:26). The pH varies between 3.5 and 5.8 (Mathias 1998:174). Area F is far enough removed from the water's edge that it is free of salt water contamination, although it is high in chloride levels (McDonald 2003: 29). This decrease of salt levels results in an improved overall state of artifacts as compared to those found closer to the water's edge. The wetness of the soil itself further improves artifact conservation. The soil chemistry of Area F has resulted in a favorable burial

environment for the preservation of archaeological vestiges of the period, and thus the structure at Area F has yielded a highly datable and varied artifact assemblage, discussed in the ensuing chapters.

4.3 History of Structure 15

4.3.1 Historical Processes and Disturbances

Prior to excavations, much of Area F lay beneath a row of modern houses. These houses served to add to the accumulated overburden as the land above the eighteenth-century occupation was leveled in preparation for new development. Because of the depth of overburden, the site was largely undisturbed by the housing that lay atop it, although a couple of modern disturbances provided minor hindrances to the interpretation of the structural characteristics of the building (see Figure 4.2). A southern portion of the western stone foundation of the structure was disturbed by the creation of a twentieth-century well. The excavation of the well resulted in the destruction and incidental excavation of a portion of the western wall of the building, though the disturbance did not extend very far into the structure itself. Secondly, a modern water line ran through the northwest corner of the structure, creating a roughly 50cm wide trench of disturbed stratigraphy. This water line ran directly through the remains of the structure's two occupational levels, and not only destroyed remnants of the floor in that corner of the structure, but also resulted in a mixed context of artifacts from the early seventeenth century up to modern times. In that corner of the building, only the footing of the

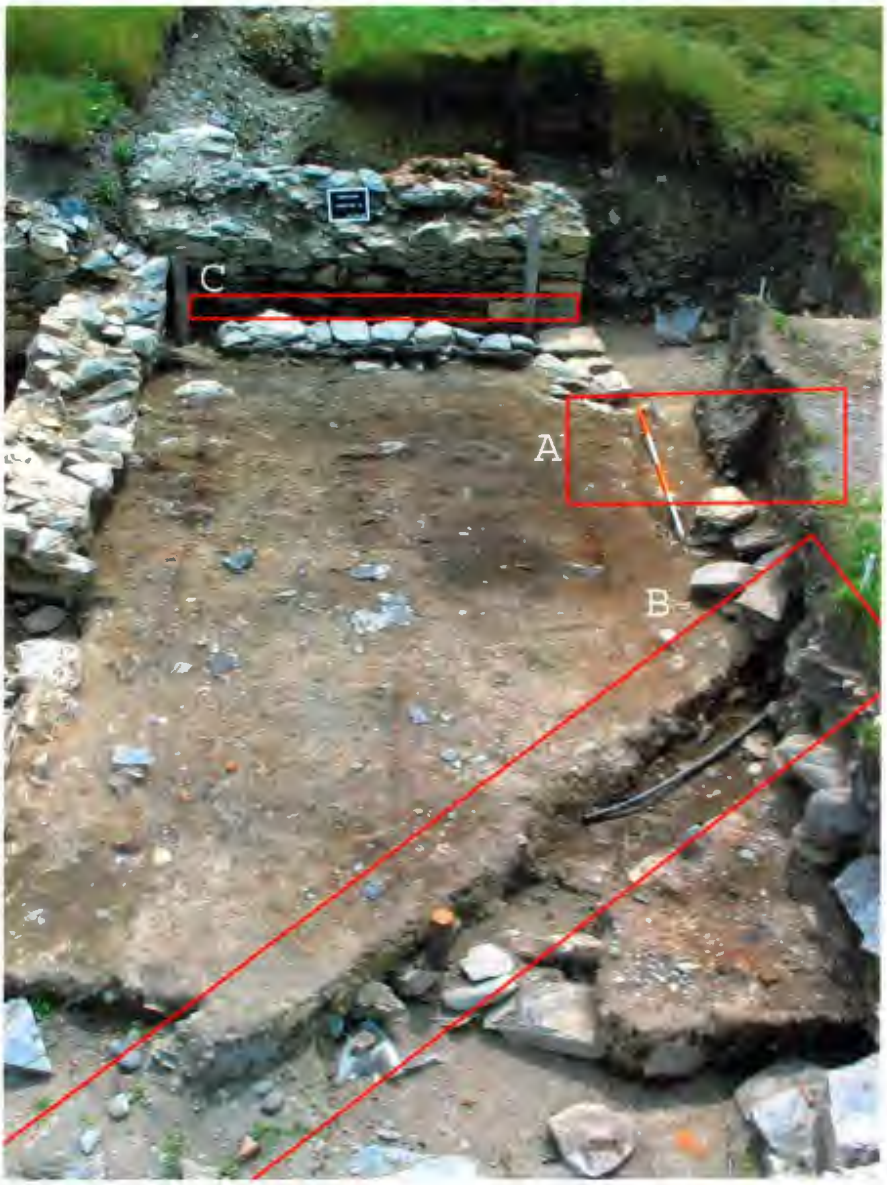

Figure 4.2: Photograph of Structure 15, modern disturbances highlighted:

A) twentieth-century well; B) modern water line; C) eighteenth-century scavenging

structure remained. The northern foundation wall and the northwest corner were destroyed by the disturbance. Finally, there is evidence of eighteenth-century post-destruction scavenging of structural materials from the southern end of the building. Because the scavenging did not result in any visible disturbances to the stratigraphy of the site, it likely occurred shortly after the abandonment of the structure. This instance of scavenging is further discussed in the following chapter.

4.4.3 Site Stratigraphy

The features and events associated with Structure 15 at Area F are detailed below. Profiles of the events are provided in Appendix D. Events are discussed in the order in which they were excavated, and thus progress from the layer of disturbed overburden downwards. Excavations began in the southern half of the house and moved progressively northwards. Certain events which may have originally been deemed unique were later reinterpreted as continuities were recognized between events in the south and north of the structure. Such associations are noted in the event descriptions.

Feature 139: Feature 139 represents a stone-walled structure of unknown function which exists to the south of Structure 15. Structure 15 shares the northern wall of this structure, employing it as its southern wall.

Feature 138: The feature is a brick oven built into the reused collapsed north wall of feature 139. The excavated oven featured a single course semi-circle of 10 x 20.3 x 6.3

cm bricks set on top of a light brown to yellowish layer of fill atop feature 139. The opening of the oven faced north. The oven measured 80 cm in depth by 70 cm in width.

Event 247: This is the disturbed overburden event that caps off this area of the site.

Event 639: This event contained a matrix of light brown clay with some patches of lime mortar, wall rocks and occasional bricks. Located in the southern end of Structure 15 above events 643 and 637, the event likely represents collapse from the southern wall of the structure intermingled with artifacts associated with the hearth area. The event was approximately 30-40 cm thick and contained a variety of early eighteenth-century artifacts, including bottle glass, pipes, and animal bones.

Event 637: This event too was confined to the southern end of the structure, where the fireplace would have been located. It was excavated as part of the first trench. The fireplace floor was absent. The layer was identified as a brown sticky clay layer approximately 40-50 cm thick, with flat rocks and lots of charcoal patches. It was located below event 639 and above event 636. The event contained a variety of late seventeenth to early eighteenth-century artifacts, including ceramics, a copper farthing, nails, bottle glass, and a few bits of Rhenish stoneware. The profile of the event later proved to encompass all occupation layers associated with Structure 15, from event 643 right down to the pre-1696 cobbles of event 636. Charcoal patches in the profile were

representative of destruction burn layers, and the flat rocks of the structure's two hearths.

Event 643: This event represents a wooden floor and associated hearth dating to the early eighteenth century. Below a layer of angular rocks is a soft brown matrix, the remnants of a planked floor. Many of the rocks were pressed into this organic matrix. In many places floor boards were still easily discernable. Rows of upright nails anchored the boards to three rows of parallel wooden joists set 1.2 m apart. At the southern end of this event were found the remnants of a large hearth measuring 2.8 m by 90 cm. The hearth was made up of flat stones supported along the northern border by a row of upright stones, against which the wooden floor abuts. Artifacts from this event date to no later than c.1720.

Event 645: Event 645 represents a northwest section of the wooden floor of Structure 15. The matrix consists of fine orange clay with an abundance of rocks and nails. Originally thought to represent a possible exterior midden, the event later proved to be a continuation of event 643 and includes much of the same material.

Event 659: Event 659 is a layer of pea- to walnut-sized charred beach gravel below the wooden joists of event 643. Event 659 represents an earlier gravel floor of Structure 15[1]. The hard, very dark soil matrix which contained the gravel also contained artifacts dating from the late seventeenth and early eighteenth centuries and were very similar to those from event 643. The gravel layer stopped in N0. Some artifacts were burnt and many were very fragmented.

Event 663: This event represents the continuation of the event 659 floor to the north beyond N1. Gravel was absent from the otherwise dark and burnt matrix, suggesting the use of another type of fill for this half of the structure. Artifacts were consistent with those of event 659, and crossmends were made between the events.

Event 662: This event represents the hearth associated with the gravel floor. The hearth measured roughly 1.3 m wide by 1.2 m deep, and is made up of large flat-faced rocks.

[1] In excavations subsequent to this research in 2006, it was discovered by archaeologists that a thin layer of small gravel, earth and charcoal exists to the immediate west of Structure 15, extending for approximately 15 meters, and apparently contemporaneous with this Event. This suggests that this floor was not a unique deposition, but rather a part of a larger deposit, leading to the question of whether or not this event actually does represent a floor at all. In light of this, and combined with the small size of the associated hearth, Dr. Gaulton has suggested the possibility that it could represent not planter re-occupation, but rather some other sort of use by seasonal crews. Having reexamined my own research notes and the associated artifact assemblage and features (in particular, the presence of window glass and the centrally located hearth at the southern wall ideally situated to a dwelling layout [see Chapter 5]), I continue to believe that the event does in fact represent a floor. While this newly acquired knowledge has changed the original assumption that the floor was a purposeful flooring deposit made by the residents, the fact that the layer is more widespread than we initially thought does not negate the possibility of a pragmatic decision on behalf of the planters to take advantage of its presence for use as a floor within the confines of their dwelling. This is the assertion maintained throughout this thesis.

Event 660: Event 660 was located immediately below the gravel of event 659. It was a compact layer of light brown clay containing lots of pipe stems and ceramic fragments which share the same date range as event 659. Although statigraphically located below event 659, artifacts were occasionally commingled between these two events.

Events 636/648: These events represent a layer of cobblestones embedded in a thick layer of clay and sand that makes up the exterior seventeenth-century courtyard beneath event 660. This event is called event 636 in the southern end and event 648 in the northern end of the structure. This layer contains a variety of seventeenth-century artifacts, many of which are shattered, burnt and/or warped due to heat exposure. The courtyard layer was also disrupted in a lot of areas from artillery attack and contained associated artifacts such as cannonballs and barshot.

4.4 Conclusion

This chapter has described the depositional strata. It has examined both the characteristics of the broader Area in general, as well as those of the specific house site within Area F. Geographical as well as historical formation processes were outlined, and details of soil composition considered in light of the impact of water and chloride levels on artifact preservation. Modern disturbances that have affected the remains of the structure and its assemblage were explained and detailed. Finally, the specific stratigraphy associated with the house site was outlined, with each feature and event associated with Structure 15 described in order to facilitate an enriched understanding of

the various contexts from whence the assemblage discussed in the ensuing chapters originated.

Chapter 5: Architectural Remains

5.1 Introduction

This chapter discusses the structural remains of the various levels of occupation associated with the building under study. It begins with a description of the oldest cultural level, an exterior seventeenth-century courtyard and its related artifacts, and then moves into a discussion of the architectural remains of the structure itself. Since the analysis of any early European New World structure is, at the heart, a study in vernacular architecture, an introduction to the methodology of this perspective is offered, followed by a consideration of the relationships of Early Modern Newfoundland housing to its Old World antecedents and its New World counterparts. Next, the structure itself is considered in detail, outlining both the superstructural elements of the building as well as its infrastructure. The chapter concludes with a consideration of the use of internal activity spaces derived from an understanding of seventeenth- and eighteenth-century social life within the household.

5.2 Seventeenth-Century Non-Architectural Remains: The Courtyard

Beneath Structure 15 lay the remains of an exterior seventeenth-century courtyard which was constructed between the western wall of one and the northern wall of another of two early structures at Area F (see Figure 5.1). It is at a stratigraphic level consistent with those of the surrounding seventeenth-century buildings, and artifacts excavated from the courtyard floor confirm its contemporaneity with these structures. The courtyard itself is

Figure 5.1: Photograph of seventeenth-century exterior courtyard.

roughly 4.5m wide. Its north-south length is unknown, as it runs beneath the modern roadway to the north, likely meeting up with the "prettie street", which is believed to lay beneath that same road.

The courtyard is constructed of beach cobblestones with a drainage channel running north-south through the cobbles. A trench of unknown function cuts through the northern end of the courtyard, running along the east-west axis (refer to Figure 5.1). The floor of the courtyard is made up of cobblestones collected from one of the nearby beaches. A thin layer of sand was used as bedding for the cobbles, which were laid so that most of the stone was buried and the flat surface of the cobblestones were facing upwards to create a flat, sturdy walking surface. Such cobblestone flooring techniques have been employed elsewhere at the site, including the Area C cowshed, the early "prettie street" that runs through Areas B and F, and an exterior courtyard adjacent to the Kirke house in Area F (see Gaulton 1997:83-84; Tuck and Gaulton 2003:198).

The courtyard displays obvious signs of destruction. Sections of cobbles are disrupted in circular patterns likely reflecting demolition from artillery attack during the 1696 raid. Indeed, in the northwest quadrant of the courtyard, a bar shot was found embedded in the cobbles, leaving a large circular hole in the courtyard (see Figure 5.2). Artifacts were scattered across the cobblestones, many valuable and many shattered and burnt, as though dropped by their owners as they fled their attackers. A copper cloak pin lay forgotten where it was dropped; a high-quality North Devon Sgraffito plate lay shattered on the

Figure 5.2: Feature 145: Barshot embedded in courtyard

courtyard floor, as did a Venetian glass dish, warped by the heat of the fires that accompanied the attack (see Figures. 5.3, 5.4 and 5.5). The artifacts excavated from the courtyard floor reflect the status of the inhabitants of the colony in the period leading up to the raid. Each of these items reflect high status, as did many others which were found laying among the destruction layers, indicating that the late seventeenth-century inhabitants of Ferryland had a reasonable degree of wealth to be able to afford the sorts of artifacts found among the ruins of the pre-raid period.

5.3 Studies in Vernacular Architecture

Studies in vernacular architecture aim to understand not only the ways in which houses were built and used historically, but also the ways in which their construction, forms and usages evolved and were modified across time and space. Houses, like any other physical remnant of the past, are material culture and just like a sherd of pottery or a piece of clothing are a medium through which long term social and cultural changes can be studied.

Artifacts of the past are more than products of function. They are produced within a social environment and are imbued with social meaning. Buildings, as artifacts, are thus examples of culture actualized. They are productions of their builders' life experiences, and so are reflective of their constructors' social worlds. The construction of a building is intimately intertwined with its architects' inner resource of socially produced ideas of attractiveness, comfort and respectability (Glassie 2000:17). The building is a product

Figure 5.3: Seventeenth-century copper cloak pin (Mathias, pers. comm.).

Figure 5.4: Seventeenth-century North Devon Sgraffito plate.

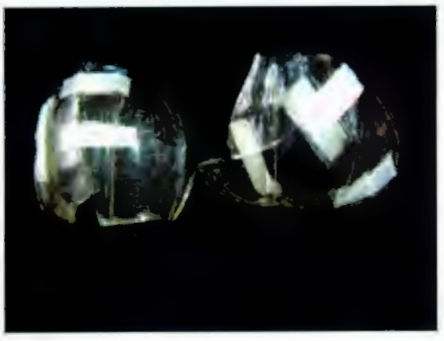

Figure 5.5: Fire-warped seventeenth-century Venetian glass dish.

not only of necessity, but is also a function of interrelationships between practicality and aesthetics. The form and layout of a house is related at least equally to the cultural world of its constructors as it is to economic considerations. The creation of a home is the construction of a personal dwelling which becomes the familiar and so results in space which is not only habitable, but also meaningful. Because of this, many studies of traditional architecture stress the house as "the centre of cultural and social values and activities" (Johnson 1993:14).

5.3.1 Methods of Approach

There are two basic methods of approaching a study in vernacular architecture. The first and most basic is typological analysis. Such a methodology focuses upon the description and classification of building type, style, and layout, as well as an explanation of the construction materials and techniques used in building the structure. The second approach initiates from an economic standpoint and focuses upon changes and differences in structure and style as they relate to the local economic climate. Here, buildings are analyzed as socio-historical by-products, rather than as "artifacts-in-themselves" (Johnson 1993:9). This thesis applies both of these methodologies, using the typological analysis as a starting point, then broadening to a consideration of how the particular economic climate at Ferryland may have influenced the construction of the house at Area F. Finally, the house is examined as a reflection of the socio-cultural life of its users, keeping in mind Johnson's advice that "the way people think and feel about the world around them will affect the way they live in their homes; and thus, to work in

the opposite direction. [...] aspects of past thought and feelings may be 'read' through the form of old houses" (1993:*viii*).

5.3.2 Eighteenth-Century English Architecture: Old World Antecedents and New World Adaptations

It is widely held that immigrant vernacular builders are conservative builders; that is, they attempt to preserve and employ the construction methods and styles of their homeland in an effort to minimize the cognitive dissonance that results from a move to a foreign place. However even with this focus in mind, colonial builders, while basing their housing styles on tradition, in practice do tend to deviate from contemporary homeland construction style and layout when building homes.

In the case of Newfoundland, the reasons for this departure from tradition are numerous. As the early colonials moved across the Atlantic, they left behind a familiar world. By the early seventeenth century, England was becoming progressively urban, and changing tastes were resulting in the creation of increasingly symmetrical and uniform housing (Smith 1983:34). While this was occurring across "the Pond," Ferryland was in its infancy, and its early settlers were struggling to establish a foothold along Newfoundland's inhospitable coast. Life in Newfoundland was hard: the environment was harsher, the climate more temperamental, money much more scarce, and life significantly less cosmopolitan than it was in England. As a result, the Newfoundland builders quickly adapted a mentality of "simplicity and survival" in construction, which

resulted in a tradition that became very different from the one they left behind (O'Dea 1983:4).

This type of adaptive mental shift in construction technique is not unique to Newfoundland. Such an approach to vernacular construction in the New World is a well documented phenomenon along the eastern seaboard of North America during the seventeenth and eighteenth centuries (see Carson et al. 1981; Deetz 1979; Pogue 2005). Recent studies, overriding earlier antiquated evolutionary perspectives, emphasize that in response to particular regional conditions, colonists' housing traditions were modified by the pragmatic adoption of a variety of characteristics that were selected for lower construction costs. These choices generally resulted in what appeared to be a step backwards for many English settlers in terms of chosen construction materials, house size and room layout (Pogue 2005). Carson et al (1981) provide an excellent discussion of the particular set of circumstances which led to the development and perseverance of a tradition of impermanent architecture in Chesapeake colonies during this period. The study emphasizes not only the special circumstances which led colonists to pragmatically adopt less substantial, more cost effective "archaic" forms of English house construction in the initial stages of settlement, but also demonstrates the ways in which such forms became, over time, internalized by colonists as acceptable alternatives to full-frame construction and thus persevered throughout the colonies well beyond initial settlement (Carson et al 1981:141). The study provides an important perspective for studying New World sites, and forces us to reconsider the urge to analyze structures strictly in

evolutionary terms, and to consider the occurrence of more simplified building techniques as active pragmatic decisions on the behalf of colonists, rather than reductively discussing them as a mere regression to a more archaic standard of life.

In the particular case of Newfoundland, traditional housing forms were maintained, but the builders were forced to employ innovations both in technology (e.g.: studded structures became more predominant than stone construction for ease of erection), and in the gradual development of a New World style more pragmatic for their new environment. As a result, Newfoundland architecture tends to demonstrate as many New World innovative elements as it does Old World antecedents (Pocius 1982:217; Pope 2004:328). Besides innovations in construction materials, early Newfoundland houses are much less grand than their Old World counterparts, tending to be much smaller and to having considerably fewer room divisions and fewer special-purpose rooms (c.f. Hall 1991 for comparative purposes). Single-cell or two-room rectangular timber-framed houses typify the Early Modern Newfoundland English house form (see Crompton 2001; Mills 1996; Nixon 1999; Pocius 1982; Pope 2004:327-39). It is a form with more in common with its contemporaries in the Chesapeake and New England colonies than with its Old World antecedents in West Country England (see Ameri 1997; Carson et al 1981; Deetz 1979; Horn 1988).

5.4 House Reconstruction

The house is a timber-framed structure which measures 3.5m (12 feet) by 7.3m (24 feet). It is built upon a stone foundation, reusing two demolished walls from buildings to the east and to the south as part of its construction (see Figure 5.6). The house features a hearth at its southern end, and the succeeding occupation of the structure boasts a brick oven built into the southern wall, at about waist height (see Figures 5.7 and 5.8).

5.4.1 The Superstructure

5.4.1.1 The Foundation

The foundation of the structure is of local unworked stone. The stones used in the construction of Structure 15 were likely scavenged from the collapsed buildings to the east and south. Originally, the slate-stones were quarried in a way that produced a flat surface, and so barring the occasional need for minor shaping, the stones were already ideal for use in building construction when they arrived at the site. Suitable stones were chosen from the selection provided and courses were individually laid. The wall of the stone building to the south was constructed using a lime mortar, while the eastern building was bonded simply with fine sifted clay. Both of these foundation walls were seated in builder's trenches, unlike those of the western and northern borders of Structure 15 which were laid atop a fill layer over the cobblestones. Generally, builder's trenches are notably absent from many colonial Newfoundland structures. The Ferryland stone structures at Area C lack builder's trenches; as does the Kirke house at Area F and the house at Area B (Gaulton 1997; Carter et al 1998; Nixon 1999). A seventeenth-century

Figure 5.6: Shared eastern and southern foundation walls of Structure 15.

Figure 5.7: Hearth of secondary wood-floored occupation (c.1705/08-1720s).

Figure 5.8: Feature 138: Eighteenth-century brick oven, from secondary wood-floored occupation (c.1705/08-1720s).

planter's house excavated by Mills in Renews, about 16 km south of Ferryland, exhibits the same type of foundation construction: a stone foundation for a timber-framed house laid directly atop of the sod (Mills 2000). Clearly, for some reason early Newfoundland builders did not foresee a need for builder's trenches: in fact, the practice of erecting above ground footings can still be seen on older houses in Newfoundland (Crompton 2001:38). At Ferryland, there is a logical explanation for this construction choice: most of the early Ferryland buildings were either dug into the hillside or built directly atop newly reclaimed land (B.Gaulton, pers. comm.).

The eastern and southern foundation walls are the only ones that remain standing (refer to Figure 5.6). The southern wall was constructed very soundly; it is solidly and cleanly built and remains in a good state of preservation owing to the lime mortar used in its construction. The eastern foundation is comparably less well preserved; the courses of stones fit together less well and are generally seated less firmly due to the fact that it was bonded with fine sifted clay. Not much remains of the western and northern parts of the foundation. The only vestiges of these is a partial single course footing at the southwest end and a single course stone footing at the northwest corner (see Figures 5.9 and 5.10). Some flat-faced structural-type stones were excavated in jumbles in the squares adjacent to the footing line on the western border of the house, likely collapse from the wall. The remainder of the western wall has disappeared with the digging of a twentieth-century well and the burial of a twentieth-century water line, which also runs through where the northern wall used to lie (refer back to Figure 4.2). Because of these

Figure 5.9: Southwest stone footing

Figure 5.10: Northwest stone footing

disturbances, the foundation dimensions were measured by the distance from the eastern foundation to the southwestern footing and from the southern wall to the northwest corner footing.

5.4.1.2 The Walls

Timber-framed houses constructed atop stone foundations are well documented throughout seventeenth and eighteenth-century England, Newfoundland, New England and the Chesapeake (Ameri 1997; Brunskill 1982; Cummings 1979; Deetz 1996; Gilbert 1998; Innocent 1916; Mercer 1975; Mills 2000; Nixon 1999; Pocius 1982; O'Dea 1983). Referred to as "box-frame timber construction" in the literature, the process involves raising wood-framed wall structures atop stone footings. The wall boxes are formed of studs and upright posts which are assembled together to frame a box by affixing the posts into a sill at the bottom and into wall plates at the top (Brunskill 1982:163; Cummings 1979:52-59). Diagonal braces are added for increased rigidity. The wall box-frame can be made up of more than one bay, or compartment, depending on the size of the structure. The size of this house suggests one- or possibly two-bayed longitudinal walls. Finally, bays are divided into panels with studs and rails to provide locations for windows and doors and to further reinforce the strength of the bays. Once the wall frames are constructed, they are then joined together by heavy lateral tie-beams at each end and at each bay interval (Brunskill 1982:164; Cummings 1979:57).

After the house frames are erected, the gaps in the bays are infilled with a non-structural element such as wattle, mud, brick or boards, used individually or in a combination and sometimes plastered over. Because lime was imported, the vernacular tradition of plastering would have been expensive for the colonials (Cummings 1979:130). Brick too was a luxurious import and is limited at Ferryland as a large-scale structural element. Because of these economic realities, the practice of covering box-frames with clapboard quickly became the preferred method of covering clay-infilled timber-framed structures throughout the colonies (Cummings 1979:130, Deetz 1996:142; Ameri 1997:6). Although there are no surviving remnants to tell us so conclusively, this is most likely the material used for this structure. An abundance of nails found in the events associated with the house attest to the use of wooden construction materials; the fact that many of these were smaller in size suggest that nails were being used to affix wooden siding as well as for structural purposes. The abundance of available timber in the area also supports the hypothesis for clapboard siding, as does the fact that such practice is common during the early stages of settlement at the site: Captain Wynne's letters to George Calvert not only describe the sawing of boards of wood, but also specifically request a supply of clapboards for the colony (Wynne 28/7/1622, 17/8/1622). Nixon (1999:73) follows the same logic in suggesting the use of clapboard siding in other domestic structures at Ferryland.

5.4.1.3 The Roof: Construction and Materials

The roofing of timber-framed structures was constructed separately from the walls. The box-frame was capped by pairs of rafters or a combination of rafters and roof truss. Commonly, a horizontal brace called a *collar* was affixed to rafters to reduce sagging. This type of roof construction requires the addition of crown-post support throughout the structure. Alternatively, principle rafters rising from each tie-beam can be supported by horizontal purlins, a design which negates the need for collars (Brunskill 1982:166, 2000:78-79, 84). Nixon notes that since the latter framework results in increased loft space, it would probably be considered the more desirable roofing technique for the Ferrylanders (1999:74). Although it is impossible to say for sure, it would be fair to extend the assumption to this structure: lofts are commonplace features in early gable-roofed timber-framed houses for extra storage and sleeping space. Some very circumstantial evidence does exist for the possibility of a loft: two side-by-side horizontal depressions which could potentially be from the remnants of ladder poles can be seen on the remains of the gravel floor of the structure (see Figure 5.11).

It is difficult to say with certainty which type of roofing material was employed to cover the house. A variety of materials were commonly used during the colonial period in northeastern North America including thatch, stone tiles, clay tiles and slates. Thatch was by far the most commonly used material, stone tiles being mainly reserved for the upper class (Brunskill 1982:179). Ferryland, however, seems to be an exception to that rule: thatch roofing is a conspicuously scarce technique at the colony relative to

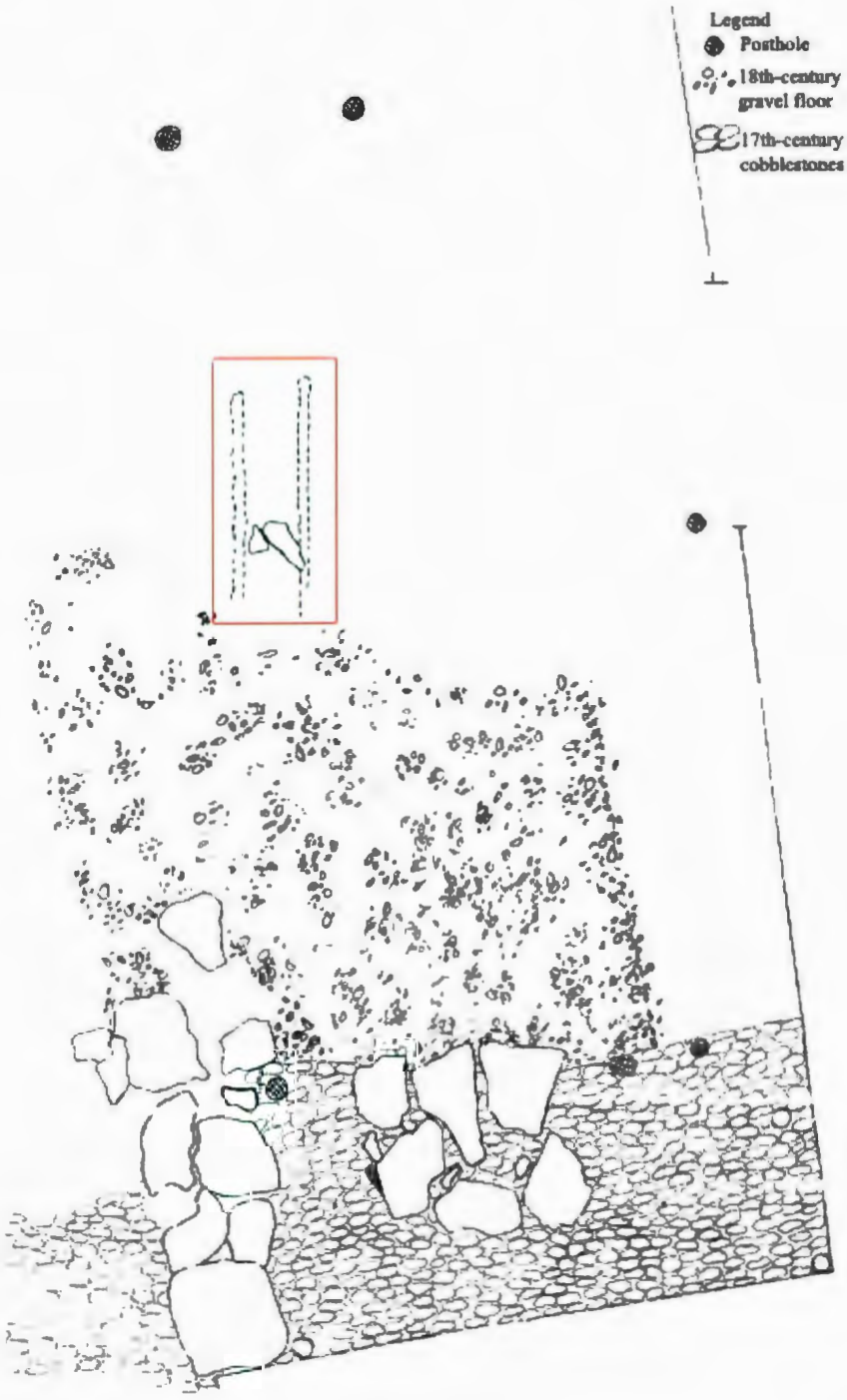

Figure 5.11: Map of initial gravel-floored reoccupation level of Structure 15; linear depressions highlighted.

other sites in New England. The only domestic structure exhibiting any use of thatching is the early 44 by 15 foot dwelling, which was roofed in a combination of wood boards and thatch (Wynne 28/7/1622). The only other possible evidence for thatched roofing comes from the cowhouse (B. Gaulton, pers. comm.). In the early years at Ferryland slate roofing seems to have been the preferred technique, likely owing to the abundance of natural slate available nearby. Mills (2000:62) and Nixon (1999:75) both suggest that there was a lack of suitable materials for thatching along this part of the Southern Shore, making the technique impractical. Indeed, the fact that Captain Wynne was only partially able to roof the mansion house in thatch, which he states is "a far better covering than boards, both for warmth and tightness" is suggestive of a scarcity of the more desirable material (28/7/1622). It would seem that in light of this shortage, the early Ferryland inhabitants turned towards the use of roofing slates, which are present in large numbers in the assemblages of many structures predating 1650. After this point, roofing slates appear to fall out of fashion: they are conspicuously absent from the domestic structures at Areas B, D, E and the house under study at Area F. Whether this is due to a general shift away from the practice or whether the absence occurs for other reasons is unknown, yet it remains clear that there was a shift after the mid-seventeenth century in roofing practices at Ferryland. Because of the absence of roofing slates in the assemblage of this structure, and taking into account the scarcity of thatching supplies such as rushes, straw or sedges and the comparable abundance of wood available in the area, it is proposed that the roof was likely constructed of wood boards or possibly wooden shingles. The abundance of nails found in the assemblage also supports this suggestion. This material

has also been suggested as probable for two of the other late seventeenth-century domestic structures at the site and is indeed a documented practice throughout New England (see Cummings 1979; Deetz 1996:143; Nixon 1999; Crompton 2001).

5.4.1.4 The Openings: Doorway and Windows

A door lock from Event 645 and iron strap hinges excavated from both occupation levels of the house confirm the presence of a door, yet due to the disturbances to the northern and western walls of the structure, there are no remaining structural vestiges to indicate doorway placement. Since the eastern and southern walls were shared with other structures, the doorway was certainly not built into either of these. It is also very unlikely that the door was situated along the northern border of the house, since gabled doors (that is, doors that run along the shorter axis of the house) were relatively uncommon on English structures during the seventeenth and eighteenth centuries (see Mercer 1975; Cummings 1979; B. Gaulton, pers. comm.). It is thus possible to infer that the external doorway was situated along the western longitudinal side of the house. Pinpointing the exact location of the doorway along this wall is impossible; off-center doorways are as common as centrally located doorways during the seventeenth and eighteenth centuries in New England (see Cummings 1979:5, 9-10). In the Chesapeake, end-located doorways become predominate at the close of the seventeenth century (Neiman 1993:262). Likely the doorway was not located at the southern end of the wall since its location there would allow the heat generated by the fireplace to escape very readily. A door lock was excavated near the northwest corner of the structure which suggests the possibility that

the door was located in this area, but in absence of additional evidence this remains only a hypothesis.

Just as evidence exists for the presence of a door but not its location, so too does the presence of window glass and lead caming indicate the existence of windows during both occupation levels of the dwelling (see section 7.3.1). Twenty-seven pieces of window glass were recovered from the wooden floor, and eleven pieces from the gravel floor. The sherds are scattered all over the floor of the structure, and so their distribution does not tell us much about the location of the windows. Like the door, it is logical to assume that the windows were located along the northern or western walls. Lead caming has been excavated in squares near the location of both walls. Both windows on the faces of houses and windows on the gabled ends of structures are common in New England and Chesapeake structures, and so it is quite possible that the structure exhibited windows both along its western wall and also at its northern end, facing out to the direction of the street (Cummings 1979: 145-148).

5.4.2 The Infrastructure

5.4.2.1 The Floors and the Hearths

The early floor (c. 1697-170?) is comprised of a thick, very compact layer of charred gravel and earth (see Figure 5.12), which appears to have been laid directly atop the destruction layer from the 1696 raid. It features a small hearth at its southern end (see Figure 5.13). Artifacts found laying on this floor date it to post 1696, and many exhibit

Figure 5.12: Exposure of gravel floor.

Figure 5.13: Hearth of initial gravel-floored reoccupation level of Structure 15 (c.1696-1705/08).

signs of destruction. The floor itself is charred and disturbed in several areas. It is likely that another attack took place on the house during the occupation represented by the gravel floor. It is possible that the destruction of the gravel floor occurred during one of the 1705 or the 1708 raids of Ferryland.

Pragmatism clearly played a role in the decisions made by the settlers during this period regarding construction materials. Particular conscious choices were made not only to reuse other preexisting materials in the house's construction, but also to exploit the opportunity to use a cheaper method of flooring, avoiding the labor, time and cost of sawn planks in favor of the gravel floor. This can be interpreted as a logical decision on behalf of those resettling the site who were certainly both aware of and influenced by the instability of life at the colony during this time.

A later floor lays directly atop the rubble from the early gravel floor (see Figure 5.14). The destruction layer of the first occupation was leveled off with dirt fill, and three wooden joists were vertically laid at 1.2 m (4 foot) intervals into which wooden floor boards were nailed. An abundance of upright nails remained in the floor at the time of excavation (see Figure 5.15), and indeed many of the floorboards themselves were well-preserved and discernable (see Figure 5.16). A larger hearth was located at the southwest

Figure 5.14: Plan of wood-floored occupation of Structure15 (c.1705/08-1720s).

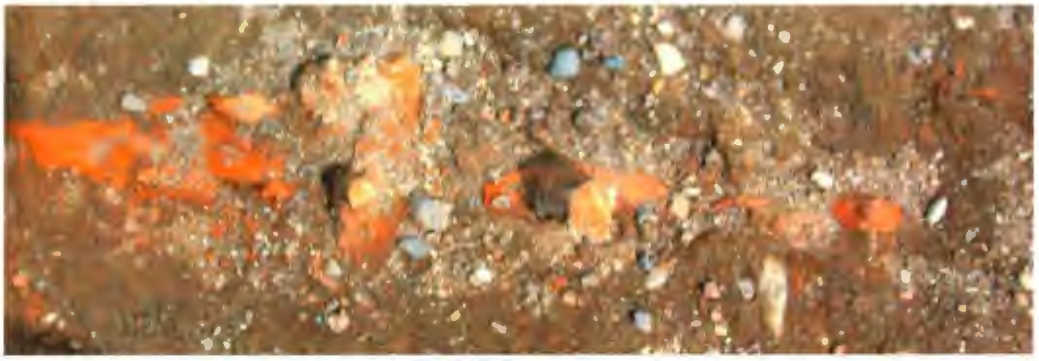

Figure 5.15: Upright nails in Event 643.

Figure 5.16: Photograph of wood floor (c.1705/08-1720s).

end (refer to Figure 5.7), and as previously mentioned, a brick oven recessed into the wall at the back of the fireplace (refer to Figure 5.8). The wooden floor dates no later than the early 1720s, at which point the house was apparently abandoned. It is possible that the abandonment of the house coincided with the broader relocation of many Ferryland inhabitants off the promontory and onto mainland Ferryland in the eighteenth century. Indeed, the southern two feet of the base of the structure were apparently scavenged, likely for building materials to reuse. Beyond the hearthstones, the remainder of the fireplace was previously removed; there were no remnants of the fireplace floor for either occupation of the house, save postholes which likely supported the fireplace hood. Since there is no evidence of disruption to the Event layers, this must have occurred prior to the deposition of later strata – which means that the scavenging occurred either in conjunction with, or very shortly after, the end of the occupation of the structure. In light of the characteristics of the previously constructed floor, the decision to rebuild a more substantial and expensive floor for this second occupation sequence may be an indication of a more stabilizing environment during this time period, although it is impossible of course to presume to understand all of the special circumstances which informed such choices.

The hearth was, during both occupations, constructed of flat-faced local stone set into earthen fill. The hearth of the earlier gravel floor measures 1.3 m wide and approximately 1.2 m deep. It is centrally located on the southern wall. The hearth of the later dating wooden floor was laid directly atop the earlier stones and was considerably

larger, running almost the entire length of the house. It measures 2.8 m by 90cm. It is supported along its northern border by a series of upright stones, against which the wooden floor abuts. Both hearths feature contemporary postholes well-situated to support a fireplace hood (refer to Figures 5.11 and 5.14). Large hearths such as this occur at other domestic sites in Ferryland (at Areas B and D), and also are featured in houses at Cupids and Renews (Nixon 1999:77; Crompton 2001:251; Gilbert 1998:10; Mills 2000:52; Pope 2004:330). The fireplace of the house, as mentioned, was located at the southern end of the structure. While many seventeenth- and eighteenth-century floor plans feature fireplaces at the center of the house, gable-end fireplaces are certainly not uncommon. Examples of gable-end fireplaces exist throughout West Country England, the North American colonies, and are in fact almost universal along the Southern Shore in Newfoundland (Brunskill 1997:56; Deetz 1979:51; Mills 2000:52; Nixon 1999:77; Pogue 1990:13; Pope 2004:328). In the Chesapeake, end fireplaces begin to dominate over centrally located fireplaces after about 1680 (Neiman 1993:263). Nixon suggests that the occurrence of fireplaces in the gable ends of houses at Ferryland is indicative of the influence of a West Country building tradition (1999:77). As noted, gable-end fireplaces are a well documented trait of houses in the West Country (Brunskill 1997:56). Their sustained occurrence into the eighteenth century at the site suggests continued influence from the West Country, a fact which is consistent with the persistent West Country connection suggested by the ceramic assemblage and documentary evidence associated with the site (see Chapter 6).

5.4.2.2 The Brick Oven

In the late seventeenth century, many colonial homes began to incorporate a new innovation into their fireplaces; this refinement was the brick oven (Kauffman 1972:41; Bacon 1977:16). The oven was generally set into the rear wall of the fireplace, usually off to one side, and was created primarily for the purpose of baking indoors. Prior to this innovation, the majority of baking occurred either outside the home in exterior bakehouses or within the home in North Devon gravel-tempered clay ovens or in iron Dutch ovens which were placed among the ashes and covered with hot coals (see Boily and Blanchette 1979; Grant 1983:120; Plante 1995:12; Watkins 1960). Brick ovens consisted of a flat oval hearth, coursed brick walls and a domed roof. Dimensions of the oven were dependent upon available space, but the average interior usually approximated 75cm deep and 45cm wide (Kauffman 1972:41). The oven featured in this structure was set into the southern wall of the house, off-center to the right rear of the fireplace. It measures 80cm in depth by 70cm in width. Only a single course of bricks remain in situ (refer to Figure 5.8), but a high number of collapsed bricks were found in the layers above the location of the fireplace floor and hearth.

Brick ovens were primarily used for preparing breads and cakes. To do so, a small fire was built within the oven, and allowed to burn for a length of time until the bricks had absorbed the heat. One popular way of checking the degree of heat absorption involved sprinkling flour on the oven floor. If the flour burned, the oven was too hot and needed to cool; if the flour browned, it was ready for baking (Plante 1995:13). While the fire

roared within the cavity, the flames came out of the mouth of the oven and smoke escaped up the fireplace chimney; early brick ovens such as the one featured in this structure had no flue. Once the bricks had absorbed the necessary degree of heat, the coals and ashes of the live fire were raked onto the fireplace floor, food was inserted into the oven and a cover (usually a wooden board with a handle) was placed over the mouth of the oven to retain the heat (Bacon 1977:16). Once the baking was completed, ovens could take up to twenty-four hours to cool, and so the household often took advantage of the slowly dissipating heat with other activities. As the temperature lowered, the oven could be used for other types of cooking which required lower temperatures. Still warm ovens are also known to have been used for a variety of non-cooking purposes from the sterilization of feathers in preparation for stuffing pillows and mattresses, to the disinfection of the clothing of the sick (Boily and Blanchette 1979:31-32).

5.4.2.3 Floor Plans and the Use of Interior Space

Little architectural remains exist to provide finite information regarding the floor plan. Whether this is the function of disturbances to the event layers in the northern end of the structure, lack of preservation or due to a simple lack of partitions is unknown. Nonetheless, it is possible to make inferences regarding possible floor plans. The overall dimensions of the house suggests most likely that the house was either single-celled or a two-celled structure. The house, which measures 3.5 m by 7.3 m, is of a size compatible with either scenario. In single-household homes of the late seventeenth century, both single and two-cell plans are common in the Northeastern North American colonies.

Examination of English New World vernacular architecture has demonstrated that single room or two-room hall/chamber floor plans generally predominate in one-and-a-half story structures at the turn of the eighteenth century (Upton 1986:317; see also Deetz 1996:152 and Neiman 1993:262). If the house was divided into a two-celled structure, it is likely that it was partitioned into a living/generalized activity space (the 'hall') and a sleeping space (or 'chamber'), consistent with the segregation of many contemporary structures elsewhere along the eastern seaboard, particularly in New England (Cummings 1979; Neiman 1993:261; Pogue 1990:13; Upton 1986). However, as mentioned, one-cell structures were also common, and the lack of discernable partitions suggests the possibility that the structure featured only a single room. In the case of single room structures, houses generally functioned similarly to Elizabethan open-hall plans, in which the one room served as a generalized activity space with a loft providing storage and occasionally extra sleeping space (Pope 2004:327). Simple one-room plans have occurred in similarly sized structures in colonial North America, as well as at a planter's house in Renews. Similarly, the dwellings at Areas B and D in Ferryland lack formal internal divisions (Crompton 2001:253; Cummings 1979:22-23; Mills 2000:57-58; Nixon 1999:83; Pope 327:2004; Upton 1986:316). The Chesapeake is a notable exception where, during the late seventeenth century, houses began to be built with greater internal segregation, mainly in order to create boundaries between the classes (see Markell 1994:61; Horn 1988:77-78). Following Crompton, such a practice was perhaps less well suited to life at Ferryland, where small planters were not only used to working alongside their hired crews (Pope 2004:264), but where, during this period of economic instability,

it would "hardly be in the planters' best interests to begin to erect boundaries between family members and servants, to reinforce physically and visibly a sense of inequality between these two peoples" (Crompton 2001: 279).

The interior spaces of houses of the seventeenth and eighteenth centuries are often divided, if not structurally at least symbolically, into two areas of activity. Thus, even single-cell structures are often differentiated into areas akin to the hall and chamber spaces of two-celled structures. In such instances, the area closest to the hearth is generally used for entertaining and household activities such as preparing meals, eating and socializing; the area further away from the hearth is used for sleeping, storage and, if separated, as a sanctuary from the bustle of the 'hall' area (Brunskill 1997; Gilliam 1998:182). Artifacts often reflect this type of division. Hearthside spaces, including this one, often yield a wide variety of artifacts such as dishes, glass bottles, drinking vessels and clay tobacco pipes. Storage vessels tend to be found away from the hearth (Pope 2004:330).

Artifact distributions were examined in the hopes of shedding substantiating light onto such an internal partitioning of activity spaces. To elucidate this information, sherds from each identified ceramic vessel were plotted according to artifact class, and the number and types of vessels excavated from the northern half of the house were

compared to the number and types of vessels found in the southern half, using the E1 gridline as a halfway marker. As beverage service vessels, wine bottles were also incorporated into this analysis. This was done for each occupation level. Figure 5.17 shows that for the earlier gravel-floored occupation, the distribution of vessels shows no clear concentration by function, suggesting that this structure was likely a one-room house which featured a single generalized activity space. The results from the later wood-floored structure are slightly more suggestive (see Figure 5.18). A good percentage of food and beverage service vessels (i.e.: plates, bowls, wine bottles, and drinking vessels) were located in the southern area of the house closest to the hearth, found in association with a very high number of clay tobacco pipe fragments, which attests to the hearthside's function as a space of social interaction (see Figure 5.19). The relatively even distribution of beverage serving vessels throughout the house is curiously suggestive however that the hearthside was not the sole area of social activity within the structure. Food storage vessels (i.e.: pots, tallpots and jars) are generally concentrated in the northern half of the structure. Cooking vessels are also found in this part of the house. These items may have been stored in a loft space in the northern half of the structure. Either the single-celled or the two-celled theory of the structure's wood floor-plan could be surmised from these findings. There is not enough evidence to conclusively argue for a two-celled floor plan. Movable partitions are certainly a possibility, but because the distribution of artifact classes is relatively inconclusive, only tentative proposals for the different possibilities can be responsibly suggested.

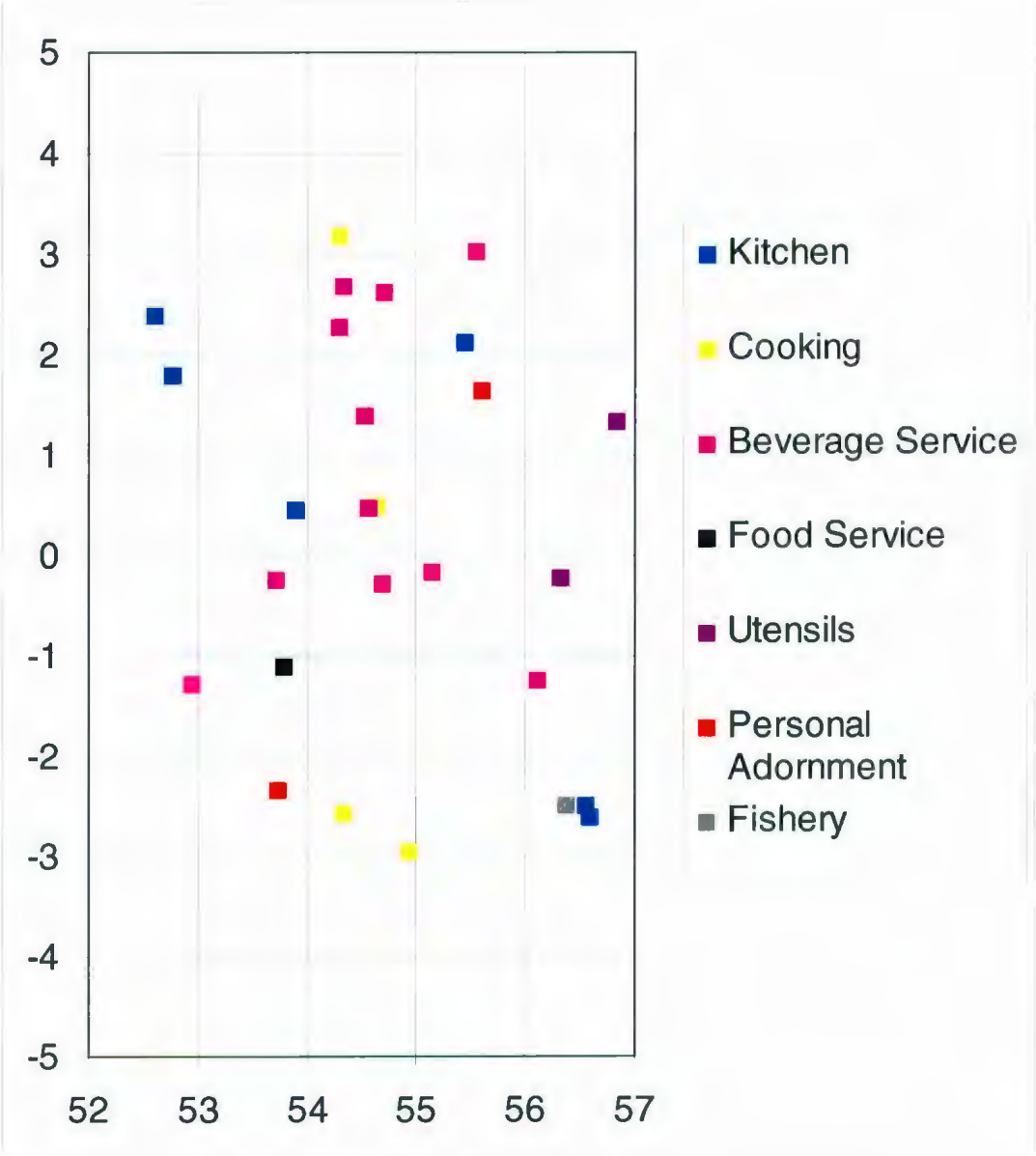

Figure 5.17: Distribution of artifacts by category (gravel-floored level).

Note: North edge of hearth resides at -3.

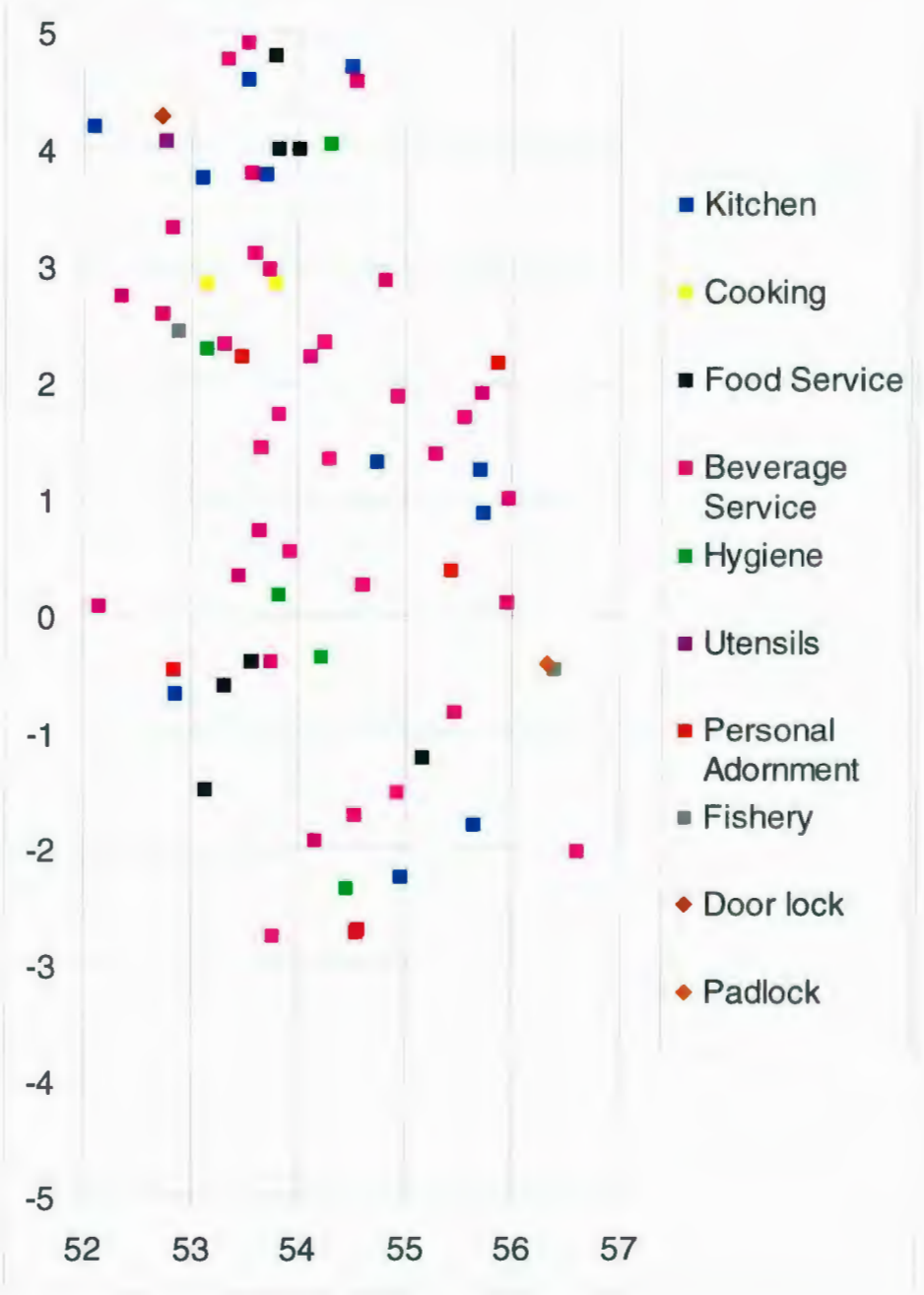

Figure 5.18: Distribution of artifacts by category (wood-floored level)

Note: North edge of hearth resides at -3.

Figure 5.19: Hearthside pipe stem fragments from Event 662.

5.5 Conclusion

This chapter is an analysis of the structural remains in the various levels of occupation associated with this domestic structure. It deals in turn with a description of each cultural level, beginning with the pre-raid seventeenth-century courtyard, and then discusses the history of the house itself which is subdivided into two levels of early eighteenth-century occupation. Construction techniques are explained. The style and form of the house are analyzed in comparison with vernacular architecture in both the New World and the Old World in order to help understand the antecedents that led to the construction and layout choices made by its builders. The chapter concludes with a series of tentative suggestions regarding the internal division of living space into activity spaces, discussing the vernacular tradition of English floor-plans, and how social life in the late seventeenth and early eighteenth century dictated certain ways of organizing domestic space.

Chapter 6: The Ceramic Assemblage

6.1 Introduction

This chapter examines in detail the ceramic assemblage excavated from Structure 15. The chapter begins with a treatise on ceramic dating techniques and details the techniques employed in this analysis. The subsequent two sections discuss the methodological issues of vessel quantification and qualification, the former explaining how vessel numbers were counted and the latter how vessel forms were determined. The ceramic types are then discussed, and the variety of forms for each are detailed. In the final discussion, I then consider ceramics as an indicator of social status and inferences are surmised from this information about the socio-economic status of the inhabitants.

6.2 Ceramics and Dating

Because of the profusion of ceramic varieties, as well the multitude of variations they display in forms, decorations and fabrics, ceramics are ideal media for demarcating stylistic changes throughout time. This fact, combined with the immense amount of literature available on ceramic chronologies, makes them relatively easily datable artifacts. There are two main ways to date ceramics. The first is to attempt to establish, through typological dating, the date of production of the vessel. This is the methodology implemented in this thesis. The second method is to calculate a mean ceramic date that will indicate the mid-point of the occupation represented by the assemblage. I will provide a short description of this method below, as well as explain why I have chosen to leave it out of this study.

6.2.1 Typological Sequences: Searching for Parallels

It is a well accepted fact that "particular forms of pottery vary in a consistent and predictable fashion, [often] allowing a particular vessel to be placed at a point in a developmental (and hence potentially chronological) sequence" (Orton, Tyers and Vince 1993:182). Orton et al refer to this process as "searching for parallels" (1993). Ceramic assemblages display many well-documented temporally sensitive decorative and stylistic elements. Thus, dating ceramics is often a simple process of matching a particular combination of features (i.e.: form, shape, fabric, decoration, color, glaze) to known, already dated collections or published chronologies. Once a ware is identified, it is possible to bracket the occupation by the earliest and latest possible dates of production for the ware.

6.2.2 Mean Ceramic Dates

Another technique sometimes employed by archaeologists involves establishing a Mean Ceramic Date (MCD), which ultimately provides the median date of occupation for a site. Calculating an MCD involves determining first the median date of production for each ware type in the assemblage, and then estimating the weighted average of these manufacturing midpoints (South 1978). The result is a calculated midpoint for the occupation of the site (Turnbaugh and Turnbaugh 1977). There are a number of flaws and skewing factors associated with the method (for a good discussion of these factors, see South 1978). Of particular importance is the fact that the MCD formula does not work well for sites of the seventeenth century due to long ceramic production dates and a

lack of temporally significant attributes within certain wares (South 1978; Crompton 2001). So many wares are carried over into the early part of the eighteenth century that I have decided to use typological analysis for the purposes dating Structure 15.

6.3 Vessel Quantification: Determining a Minimum Vessel Count

This thesis employed the Minimum Number of Vessels technique for quantifying ceramics at the site. This method was chosen not only because of its popularity in historical archaeology, but also because it is the method most often employed in studies conducted at Ferryland (see Crompton 2001; Miller 2005; Nixon 1999; Pope 1986; Stoddart 2000). Establishing a minimum vessel count involves quantifying the minimum number of individual ceramic vessels represented within an assemblage. The analysis is conducted by sorting ceramics by ware type, and then sorting each ware type into likely vessels. The analysis is a subjective one, and is one that tends to underestimate the number of vessels represented at a site (Rice 1987:272). Nevertheless, I believe that consistency is better than overestimation, and following the guidelines of past research on Ferryland ceramics, I have tended to group like sherds together as far as possible, more often than splitting them up into separate vessels (see Pope 1986; Crompton 2001).

Sherds within ware types were initially sorted by fabric, and diagnostic sherds (i.e.: rims, bases, handles) were set aside. Mends were attempted between the various diagnostic pieces. After separating those pieces, I attempted mends between the remaining body sherds. When mending possibilities were exhausted, I grouped sherds as far as possible

based on similarities in fabric, glaze and thickness. When obvious similarities were exhausted, the remaining pieces were left unidentified rather than risking gross over- or under-identification of vessels. Further attempts at refining the MNV at this point would lead to either: 1) counting each piece as a separate vessel, likely over-estimating the actual MNV; or 2) lumping together sherds with no real defensible basis for doing so. MNV analysis is easily conducted on remarkable wares, of which there are few fragments such that those remaining are easily linked together; it becomes much more difficult for common coarse wares, such as North Devon, where fragments are in the thousands and all of them look like they could belong to the same vessel. The fabric and finish of North Devon is so heterogeneous even within a single vessel that it is sometimes just as feasible that 50 dissimilar fragmentary sherds belong to one vessel as the likelihood that they represent 50 different vessels. Thus, the MNV for such wares is less refined and there are higher numbers of unidentified fragments.

The following identification of the wares provides the MNV for each ware type by occupation level. The information is also summarized by event in Tables 6.1a and 6.1b at the end of section 6.5.

6.4 Vessel Qualification: Analysing Vessel Form and Function

In order to facilitate inter- and intra-site comparison, I have chosen to categorize vessel form and function according to the Potomac Typological System (POTS) as modified by Pope (1986) for Ferryland ceramics. The POTS typology has been used to categorize

most ceramics excavated at the site, and so to continue in this tradition will help to facilitate not only continuity of analysis, but also future comparative studies.

POTS was initially devised as a means of systematizing the classification of vessels excavated in the Cheseapeake region in order to facilitate better inter- and intra-site analyses (Beaudry et al. 1988; see also South 1978). The typology uses nomenclature derived from documentary sources to categorize material culture as closely as possible to the way it was classified by its users (Beaudry et al. 1988:21). Forms are determined by the presence of certain distinguishing attributes (i.e.: a cup is "a small, handled drinking vessel of less than a pint in capacity"). Broad categories of forms are created by grouping vessels together according to the context in which they were used (i.e.: a cup belongs to the category of "Beverage Consumption") (Beaudry et al. 1988:29). The typology is highly applicable to this site because of the shared cultural heritage of the settlers of Newfoundland and the Chesapeake (Pope 1986:124).

In order to make POTS even more applicable to Ferryland, Pope (1986) added two new vessel forms common to Ferryland to make the typology consistent with the vessels of West Country England, from whence Ferryland received most of its ceramics. Pope's added vessel forms include the "tallpot" (a.k.a "baluster jar"), which was used for food storage and shipping, and the "fleshpot" (or "crock"), a large cooking vessel with two ears and occasionally three feet (Pope 1986: 130-131). The addendums found in Pope's typology are factored into this thesis. Crompton later re-introduced the forms of "chafing

dish" and the "galley pot" (under which is subsumed the form of "ointment pot") from Beaudry's original analysis (2001:73). Following Crompton, I have added them back into the categories I will be using, due to the parallel potential of their presence in this assemblage. In addition, I have reinstituted Beaudry's "pitcher" form as well, as it too factors into this assemblage. For a full characterization and description of types, consult Pope's (1986) work. The categories I will use, under the heading of the 'Ferryland POTS typology' are summarized as follows:

Kitchen and Dairy: pots, tall pots, jars, lids, bowls, milk pans

Cooking: pipkins, flesh pots, pans

Food Service: chafing dishes, dishes, plates, saucers, service bowls, porringers

Beverage Service: cups, mugs, drink pots, jugs, bottles, pitchers

Hygiene: chamber pots, galley pots

Forms identified from the assemblage are presented in Figure 6.1.

It is important to note that the vast majority of forms found on seventeenth and early eighteenth colonial sites along the east coast of North America are functional, most often related to food consumption (Deetz 1973:16). This fact is reflected in the assemblage from this site, which is predominantly focused upon the practical and

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the serviceable. Excavated forms are detailed in the following identifications of wares and frequencies of forms are summarized by occupation level in Table 6.2 at the end of section 6.5.

6.5 Identification of Wares

6.5.1 Coarse Earthenwares

Earthenware products are ceramics which have been fired at a temperature between 800°C and 1000°C, and as a result are non-vitrified. Because of their porosity, a glaze (often lead-based) is typically applied to make wares waterproof. Earthenwares come in a variety of colors, from white to dark brown and can either be fine or coarse grained. The earthenwares in this assemblage are all coarse.

6.5.1.1 Bristol / Staffordshire Slipped

Bristol and Staffordshire wares, while produced in two separate kiln areas, are so similar in appearance that they are often grouped together under a hyphenated typological category (Grigsby 1993:39). The Bristol and Staffordshire industries began to produce slipware during the mid-seventeenth century. The wares typically have a thin, hard, chaulky yellowish-buff coloured fabric. The paste is sometimes mottled with darker clays or brown and red inclusions (Pope 1986:107). The bodies were simultaneously coated with white and dark slips and decorated in a combination of trailed, combed or marbled designs. Generally the white slip covers more of the surface than does the dark. Because the two slips were applied concurrently, the resulting decoration is smooth,

unlike the decorations incised onto North Devon and South Somerset wares (see below) (Pope 1986:107). The wares are glazed with lead which lends the white slip a yellow colour.

Trailed decoration involved the application of a base slip and the subsequent "trailing" of a second color overtop. A tool was then sometimes drawn through applied lines of slip to 'feather' or 'comb' them out (Grigsby 1993:56). Noël Hume notes that between 1680 and 1700, feathering tended to run horizontally; after 1700, it begins to run vertically (1969a:135; see also Grigsby 1993:17-18). Designs usually favored a yellow base with a brown slip trailed overtop but the reverse also occurs, albeit with less frequency (Pope 1986:107). Popular motifs include geometric and abstract patterns, flowers, animals, and human figures (Grigsby 1993:46-56; Pope 1986:107). A process referred to as "jewelling" was also common, wherein simple slip dots (usually cream) were placed atop a contrasting slip line, usually brown (Grigsby 1993:46). This technique is most common on hollowwares. Two mugs exhibiting this type of decoration were excavated from this structure (see Figure 6.2). A final common decorative technique employed by the Bristol and Staffordshire potters was marbling, which involved twisting around a vessel while the slips were still wet. The glazes used on such vessels are predominantly medium to dark brown. Such vessels are referred to as "treacle-brown," or sometimes "manganese mottled" (Allan 1984:128; Crompton 2001:93). Two such vessels were excavated

Figure 6.2: Rim of eighteenth-century Bristol/Staffordshire mug exhibiting "jewelling" decorative technique (Vessel C7).

from this structure. One is a handled vessel of some sort, associated with beverage service. The other is unidentifiable. Marbled designs began to be produced at the end of the seventeenth century. Sgraffito designs, which involved cutting through a slip to reveal the base colour of the fabric underneath was occasionally practiced but is less common than the other forms of decorations (Grigsby 1993:62).

The forms produced are numerous and include mugs, cups, dishes, plates, bowls, porringers, chamber pots and candlesticks (Pope 1986:107). One nearly complete mug was excavated in association with the house (see Figure 6.3). The mug exhibits a dark caramel-coloured glaze and incised line decoration. It is dated to the reign of Queen Anne (c.1702-1714) (see Barker 2001). One slip-decorated galley pot was excavated as well (see Figure 6.4), as were three other unidentified slip-decorated vessels. Five sherds were not conclusively attributable either to the identified vessels, nor distinct enough to warrant designation as vessels unto themselves.

6.5.1.2 Buckleyware

Buckleyware is a hard brick red to purple ceramic, generally glazed with a thick dark brown to black lead glaze. Bowl forms are often glazed only on the interior; storage jars on both surfaces. Vessels are usually thick and often have a ribbed exterior; they are otherwise undecorated. The fabric is made up of a mixture of red and yellowish clays, which leaves diagnostic striations in cross-sections of the fabric. The red clay dominates. These striations are often more visible in utilitarian wares than they are in tablewares

Figure 6.3: Queen Anne reign Bristol/Staffordshire mug (c.1702-1714) (Vessel C5)

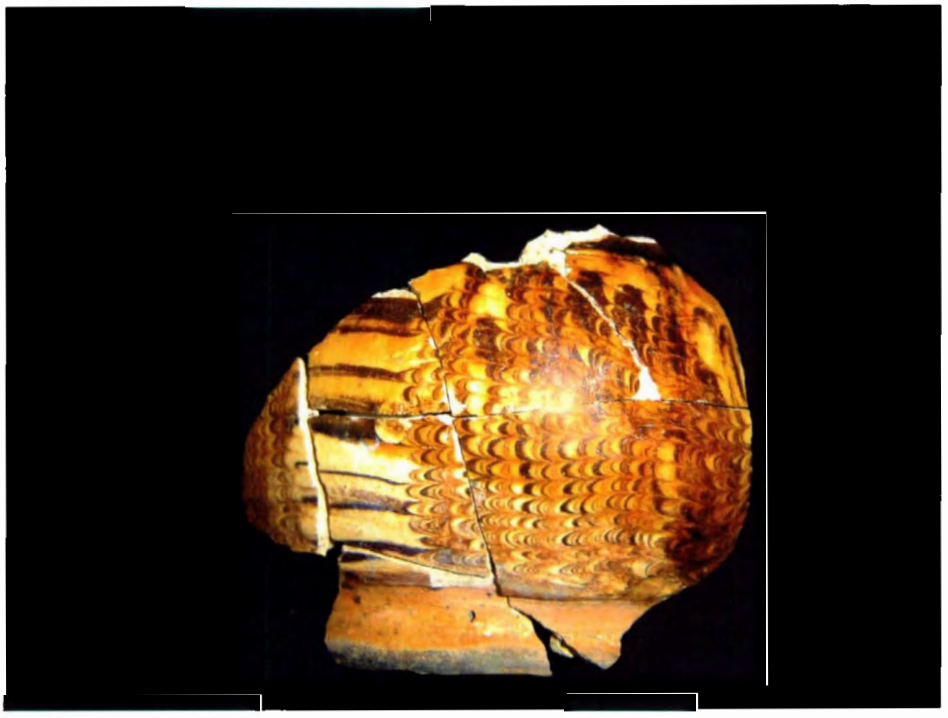


Figure 6.4: Bristol/Staffordshire galley pot (Vessel C6)

(Philpott 1985: 85). Inclusions of quartz are sometimes visible. Buckleywares have been recovered from contexts dated from 1680-1780 at kilns in Buckley, Flintshire, Wales. Buckley-type wares were not heavily imported to the colonies until the 1720s, yet examples (called "buckley like") have been recovered from late seventeenth-century contexts in Maryland (Miller 1983).

Buckleyware forms include cups, tygs, bowls, pitchers, storage pots, butter pots and milkpans. St. Mary's City yielded mainly utilitarian forms (see Miller 1983). Tablewares declined by the early eighteenth century (Philpott 1985). Two vessels were identified in association with Structure 15. The form of one of the vessels is undetermined. The second vessel has a heavy inward rim of about 35 cm in circumference and is fairly thinly walled. It is glazed both on the interior and exterior. It has been identified as a possible butter pot.

6.5.1.3 Borderware

The term borderware embodies a wide group of ceramics, and for this reason is also known under a variety of different names. These include Southern White Bodied (Pope 1986:107), Tudor Green (Pearce 1992:1-2), Surry[sic] ware (Miller 1983) and Surrey-Hampshire (Allan 1984). The main production centers for borderwares were concentrated in the counties of Surrey and Hampshire, as these names suggest. Dorset is another possible production center (Pope 1986:108). Production began in the sixteenth century, along the borders of Surrey and Hampshire. Borderwares were a common

household ceramic in London in the seventeenth century and into the early eighteenth century, at which point they were replaced with the rising popularity of white salt-glazed wares (Pearce 1992:102). The popularity of borderwares spread over to the colonies, and they are recovered not only in colonial contexts but also, as would be expected, in several popular trading ports including Portsmouth, Southampton, Poole, Plymouth and Exeter (Allan 1984:126; Pope 1986:108).

There are two major types of borderwares. The most common, referred to as "whiteware," has a fine-grained, smooth, chaulky white to pale grayish paste. The second type, "redware," fires to a light reddish color, sometimes streaked with the white/gray clay of whitewares (Pearce 1992:5). Lead glazes, which are usually only on the interior of the vessel, range from yellow to apple green on the whitewares, and orange to olive brown on the redwares (Pearce 1992:5). Whiteware was the predominant type of borderware in the seventeenth century, and yellow and green glazes dominate this time period. The production of whiteware largely ceased by the early eighteenth century. Redware production continued until the nineteenth century (Pearce 1992:1).

Borderware forms are diverse; common vessel forms include pipkins, dishes, bowls, colanders, porringers and chamber pots (Pope 1986, Pearce 1992). While the form is not identifiable, the handle of one whiteware vessel was excavated. Because whiteware only remained in production until the very early eighteenth century, the presence of this ware on the site attests to an early eighteenth-century occupation.

6.5.1.4 Exeter Coarse Sandy

Exeter coarse sandy earthenware, as the name implies, is characterized by a coarse sandy fabric. This paste is produced by a reduction firing technique which develops its dark green to brown glazes (Allan 1984:135). The fabric is red to dark-red, often with a gray core. Production of the ware began in the 1500s, and started to decline around the middle of the seventeenth century (Allan 1984:131). While similar fabrics have been found in Somerset and Devon (which has also produced the rare Exeter Coarse Sandy sherd as well), production seems to be limited to Exeter (Allan 1984:136). Forms are utilitarian, and include pots, jugs, bowls, pans, tall jars, storage jars and pipkins (Allan 1984:153). Five unidentifiable sherds were recovered from this structure.

6.5.1.5 Merida-type

Merida-type earthenware derives its name from its first assumed origin in Merida, Spain, near Portugal. Although subsequent research has since demonstrated that the production-zone is actually in the eastern region of Alejento and elsewhere in Portugal, the label has stuck, being referred to now generally as Merida-type pottery (Hurst, et al. 1986:69). The fabric is bright orange-red to dark red, often with a gray core. It is highly micaceous, which is a distinctive characteristic of the ware. It can also have larger quartz inclusions. Bodies are often burnished or sometimes glazed with a green to green-yellow glaze (Pope 1986:110). Occasionally, vessels are slipped in red or white (Pope 1986:110). Other variations in decoration include burnishing and incising of the vessels in a variety of complex patterned motifs (see Gutiérrez 2000:77-78).

The ware appears often in archaeological contexts ranging from the thirteenth to the eighteenth centuries in England, the Netherlands, English and Spanish North America as well as in high frequencies on Armada shipwrecks (Gutiérrez 2000:74). Spanish imitations of the wares also appear frequently, but are as of yet difficult to differentiate from traditional Merida; distinctions have not yet been classified in any formal manner (Gutiérrez 2000:78). Merida-type ceramics occur most popularly in the form of milk pans, pots, bowls, plates, globular jars, jugs, cups and costrels (Gutiérrez 2000:74-78; Pope 1986:110). Structure 15 has yielded fourteen Merida-type vessels[2], not including seven unattributable sherds. The only identifiable form was a possible jar, which is perhaps one of the popular standing costrels. Not enough of the vessel is present to differentiate which of the two forms it is (see Figure 6.5). The vessels are all undecorated, with the exception of one horizontally incised sherd.

[2] This vessel count is based predominantly on small body sherds, which are notoriously difficult to group into vessels due to the high degree of variability in fabric and paste, even within given vessels, that manifests in Merida-type wares (Pope, pers. comm.). With this in mind, this vessel count is based upon those sherds which I deemed significantly different enough from one another in terms of fabric, glaze and thickness that I was uncomfortable further grouping them into vessels. The segregation of sherds in this type of circumstance is an admittedly subjective one. The remaining seven sherds were too lacking in distinguishing features to attribute them either to existent vessels or to assign them new vessel numbers.

Figure 6.5: Merida-type jar or costrel top from Event 643 (Vessel C20).

6.5.1.6 Midlands Purple

Although technically classified as an earthenware, Midlands Purple is so hard a ware that it shares many of the same characteristics as a stoneware. In fact, because of its red-purple to purple-brown coloring, in unglazed states it can be easily confused with Normandy Stoneware on sites demonstrating both French and English occupation (Straube et al. 2000). Vessels are often glazed with a thick black lead glaze applied over an iron oxide red slip (Barker 1986:54).

Midlands Purple ceramics began to be produced in the early fifteenth century, and their production continued until roughly 1780. In spite of its long history, however, the ware does not commonly occur on colonial sites before the 1650s. When it does appear it is often in the form of the butter-pot, leading Straube et al. (2000) to hypothesize that it first arrived in the new world as an incidental packaging form. While the butter pot is the most common New World form, other Midlands Purple vessel forms include pitchers, dishes, bowls and skillets (Straube et al. 2000). Only one vessel was excavated from this site. It comes from the later wooden floor, although a few sherds from the vessel did manage to slip through the floor boards onto the gravel floor beneath. The only diagnostic sherd appears to be the spout of a pitcher.

6.5.1.7 North Devon (Gravel-tempered, Smooth, Sgraffito)

North Devon wares have a reddish-pink to pink-orange paste, often with a distinct grey core. Vessels are sometimes slipped in a light color, and are lead-glazed in a range of

colours from green to light brown. Most are glazed only on the interior, but some vessels, including pots, jugs, cups, mugs and chamber pots are glazed on the exterior as well (Pope 1986:102). Glazes often reveal splashes or drips, reflecting their usually utilitarian status. For the purposes of this analysis, I have divided the assemblage into three categories, differentiated from each other by temper or decorative technique. These are: North Devon Gravel-Tempered, North Devon Smooth, and North Devon Sgrafitto (which is less a type in itself, but rather a decorative technique for the Smooth wares). All wares share the same general fabric description, and tend to be similarly glazed. Seventy-seven vessels were categorized as illustrated in Table 6.3.

The otherwise fine matrix of Gravel-Tempered wares is tempered with a high quantity of angular quartz and quartzite filler and sometimes with black or white mica (Allan 1984:148; Pope 1986:100). The temper generally makes up 15-25 percent of the paste (Watkins 1960:48). Gravel-tempered wares have a noticeably rough texture. Vessels are rilled, and are roughly thrown (Pope 1986:100). They are generally undecorated. Glazes are dark green to brown and irregular, often overlying a slip close in color to the paste itself (Pope 1986:100). According to Noël Hume, North Devon Gravel-tempered wares became common on colonial sites in the third-quarter of the seventeenth century (1969a:133). Common forms are often utilitarian and include storage jars, bowls,

Table 6.3 Total Number of North Devon Earthenware Sherds by Types and Event

Type	Event 643	Event 645	Event 659	Event 662	Event 663	Total
Gravel-Tempered	25	10	8	0	6	49
Smooth	7	6	9	0	4	26
Sgraffito	2	1	1	0	2	6
Total	32	16	18	0	11	

skillets, chafing dishes, chamber pots, tankards, baking pans, cooking pots, flesh pots and portable ovens (Allan 1984:150; Grant 1983:136). Forty-nine gravel-tempered vessels were identified. Forms include pots, storage jars, flesh pots and dishes. The fabric of North Devon Smooth earthenware (sometimes called gravel-free) is hard, smooth and uniform, with only a few quartz inclusions (Allan 1984:148). Wares are still wheel-thrown and rilled, but consumption vessels, like plates and cups, are smoothed (Pope 1986:101-102). Common forms include dishes, jugs, porringers, chamber pots, tankards, tall jars, cups and mugs (Allan 1984:150; Crompton 2001:79; Pope 1986:102). Twenty-six vessels were counted. Identifiable forms included tallpots and a jar.

Around the second half of the seventeenth century, sgraffito-decorated North Devon Smooth ceramics began to appear both in the West Country and in the colonies (see Allen 1984; Grant 1983; Straube et al. 2000). They are not generally found much later on colonial sites than the early eighteenth century (see Miller 1983; Grant 1983). The sgraffito technique of decoration involves cutting through a fresh, white slip to reveal the colour of the body beneath prior to glazing. Under the glaze, the white slip appears yellow, the body-coloured lines brown. The most popular motifs include floral and geometric patterns, combed bands, rouletted dots and scrolls (Pope 1986:102). Vessel forms are the same as the Smooth variety, although it should be noted that tall pots and cisterns are not decorated (Grant 1983:136; Pope 1986:103). Undiagnostic sherds from three vessels were excavated.

An additional noteworthy North Devon vessel was excavated from Event 659 (the lower gravel floor). The vessel is a much less common variant of North Devon pottery know as "whiteware." Whiteware consists of a fine, grayish-white pipe clay fabric. This vessel is covered on the interior and exterior with a bright yellow lead glaze. The form of the vessel is a galley pot; more specifically, it is a small drug jar[3]. Examples of the same vessel have been excavated at Exeter, and Jamestown although they tend to be uncommon in North America generally (Allen 1984; Straube et al., 2000). The vessels mimic and were a less expensive alternative to tin-glazed drug and ointment pots.

Around the middle of the seventeenth century, North Devon wares became increasingly popular. This occurs at roughly the same time that Exeter Coarse Sandy wares begin to decline, a logical shift in production since both potteries focused upon the production of utilitarian wares like storage vessels and bowls (Allan 1984:131). In archaeological sites at Exeter, North Devon sherds comprise 18 percent of assemblages from c.1670-1700, and 23 percent from assemblages dating to c. 1690-1720 (Allan 1984:131). The popularity of North Devon wares in West Country trade port towns was shared by their colonial counterparts, and North Devon became the most common utilitarian ware in the colonies in the seventeenth and early eighteenth centuries (Grant 1983). Their popularity begins to decline in response to the increasing availability and affordability of refined wares in the mid- to late-eighteenth century (Allan 1984:131), making it unlikely that

[3] The vessel has a chaulky grey/white paste and worn yellowish/orange glaze. It appears to be the same vessel in form and fabric to one in the Jamestown assemblage, which is the evidence upon which the identification was based. The vessel, however, is not well preserved, and it is possible that it may be whitebodied border ware (although this is unlikely, since the form seems to be more common to North Devon wares than it is to border wares).

North Devon pottery will be found in Newfoundland contexts post-dating 1725 (Pope 1986:100). The fact that North Devon occurs in such a high frequency on this site helps to assign an early eighteenth-century date to Structure 15.

6.5.1.8 North Italian Slipware

North Italian Slipware is a marbled ware with a characteristic glaze-type produced by swirling together multiple colours of slips. The fabric of the ware is hard and fine-grained, and fires to a deep red (Blake 1981:105). The slips incorporated include red, white, green, black and brown and were applied either to a white base or directly to the fabric itself (Blake 1981:105).

Several centers of production in Northern Italy were involved in making this ceramic, including particularly Pisa and Genoa (Pope 1986:111). Spain appears to have played an intermediary role in its distribution to London and the English ports through which wares traveled to the colonies (Allan 1984:108; Straube et al. 2000). While the wares are common on sites dating from 1600 to 1660, they have also been found in contexts dating from 1690-1720 in Exeter (Allan 1984:109). North Italian Slipwares appear in the mainland colonies only in the late seventeenth century, as a response to increased commerce (Straube et al. 2000). Forms produced include bowls with everted rims and beveled footrings, dishes, jugs and costrels (Straube et al. 2000). From Structure 15, one

unidentified handle sherd was excavated, suggesting that the vessel was associated with beverage service[4].

6.5.1.9 Saintonge

Saintonge coarse earthenwares have a smooth chaulky fabric which ranges in color from off-white, to buff, to pale pink (Barton 1977:48; Hurst el al. 1986:78). There are small mica inclusions in the paste, and occasionally red hematite (Faulkner and Faulker 1987:186; Hurst et al. 1986:78). The wares are glazed both internally and externally in bright green with copper oxide, and the result is often speckled or mottled with a darker green, likely because of iron in the glaze (Barton 1977:48; Crompton 2001:102).

Wares have been manufactured in the Saintonge region of France along the banks of the Charente river since the fourteenth century (Faulkner and Faulkner 1987:186). The pottery was shipped down the river to the town of La Rochelle for export to larger port towns like Southampton, Plymouth, Exeter and Poole (Allan 1984:111; Fairclough 1979:50). La Rochelle was an important port for salt export and was heavily involved in the southern Europe/Newfoundland trade. Salt arrived in the West Country ports from La Rochelle and traveled thence to Newfoundland. The cargo leaving La Rochelle also included Saintonge pottery (Allan and Barber 1992:229). While the Saintonge pottery industry is also known for producing fine tablewares, these have been omitted from discussion in this thesis since they were not recovered from the site (for a discussion of

[4] This is an usual form for Ferryland. The identification is based upon the rather dainty nature of the handle fragment, the thickness of which would not suit anything larger than a cup or a mug.

such wares, see Hurst et al. 1986). Common Saintonge coarseware forms include jugs, bowls, porringers, milk pans, pots, pipkins, plates, bottles and porringers (Barton 1977:48-54; Faulkner and Faulkner 1987:187). One unidentifiable Saintonge vessel was uncovered from the later occupation of the house.

6.5.1.10 South Somerset

The production of South Somerset coarse earthenwares began in the medieval period and continued on through the early modern period and into the nineteenth century (Temple 2004:24). Production of the wares was at its peak in the intervening centuries between 1600-1800 (Pope 1986:103). Several South Somerset kilns were involved in producing the wares, including Donyatt, Wrangway, Nether Stowey and Wanstrow (Allan 1984:98; Temple 2004:22). Donyatt appears to be the leading production center (Temple 2004:26; Allan 1984:133-35). Since the majority of wares from West Country excavations originate in the Donyatt kiln, it is likely that the wares found at Ferryland also derive from this production center (see Allan 1984:32-35; Temple 2004:26).

South Somerset wares have a hard and sandy fabric, with fine quartz-sand inclusions and some small iron oxide inclusions (Allan 1984:149). Early in their production, the paste is pink to reddish-pink, the wares glazed in red and brown. By the eighteenth century the paste begins firing to a pale buff/fawn colour, and the earlier glaze colours are replaced by yellows, ambers, greens, oranges, browns and are occasionally mottled with green when splashed with copper for decorative purposes (Allan 1984:135; Temple 2004:28).

Evidence from Exeter suggests that the mottled-green/orange glaze was common only during the period of 1690-1720 (Allan 1984:134). Many vessels were coated with a white slip on the interior, and occasionally on the exterior. Trailed-slip and sgraffito techniques were employed by the South Somerset potters, and such vessels begin appearing in Exeter around 1600 and in Ferryland by about 1640 (Temple 2004:27). In the eighteenth century, combed white/brown sgraffito decorations became more popular, perhaps indicating a relationship between the Somerset potteries and those producing the similarly decorated Bristol-Staffordshire wares (Temple 2004:30). Pope notes that combed South Somerset wares may be distinguished from the Bristol-Staffordshire wares by a rippled post-combing surface (1986:104). Further defining them, when used on South Somerset wares, such techniques were often used in conjunction with brushwork to create scrolls, zig-zags, bands, geometric forms, foliage motifs and figures on the vessels (Pope 1986:104).

Popular seventeenth-century vessel forms include bowls, dishes, chafing dishes, jugs, chamber pots, tripod pipkins, cups, cisterns, bucket-handled pots, porringers and ointment pots (Allan 1984:151). While most of these forms continue into the eighteenth century, several new forms emerge including small plates, small pipkins, tankards, flower pots and drug jars (Allan 1984:152). A total of four South Somerset vessels were excavated; one from the early gravel floor and three from the later wooden floor. Only one form was identified from the sherds. It is a drinking vessel, and based on its size, thickness and interior glazing, likely a tankard.

6.5.1.11 Spanish Heavy Coarse

The fabric of Spanish Heavy Coarse earthenware is thick, rough and gritty, and ranges from buff to pink to brick red. It is often filled with air pockets and occasionally has red and black inclusions (Hurst, et al. 1986:66; Pope 1986:109; Straube et al. 2000). The glaze, when applied (which it is generally not), is a bright olive green; occasionally a yellow, orange or brown colour is used (Pope 1986:109). Beyond a thin white slip on the exterior, the vessels are generally undecorated (Pope 1986:109).

By far the most common form of the ware is what is often referred to in the literature as the "olive jar" (Deagan 1987; Goggin 1960; Pope 1986; Straube et al. 2000). Seville is generally attributed as the region of production for these wares, which were distributed through Spanish ports beginning in the Early Modern Era (Allen 1984:110; Deagan 1987; Goggin 1960; Pope 1986:108; Straube et al. 2000). The "olive jar" is large and globular in shape. In spite of its leading typological name, it was not used only to transport olives and olive oil. These wares are also known to have been used in the transportation of a diverse variety of goods, including capers, beans, chickpeas, lard, tar, wine, beer and soap (Crompton 2001:94; Pope 1986:108; Straube et al. 2000). Nor does its initial origin with Spanish potters necessarily reflect direct trade with Spanish ports; Pope notes that consumers were constantly recycling the jars for reuse in transporting other goods (1986:108). One vessel was excavated from the floor of the later occupation of the structure. The thickness of the vessel suggests that it was likely a storage jar of substantial size.

6.5.1.12 Totnes

The fabric of Totnes earthenware is coarse and sandy, with scattered inclusions of black mica and iron ore, and occasional round fragments of slate, chert or white limestone (Allan and Pope 1990:53; Allan 1984:79; Straube et al. 2000). The wares are reduction-fired, producing a grey to brown colour, and are glazed on the interior to a dark green or dark brown. The iron-rich glaze tends to bleed heavily, often causing blackish-green streaks and mottling the glaze, making the ware distinct from the otherwise similar North Devon and South Somerset wares (Allan and Pope 1990:53; Straube et al. 2000). If vessels are decorated, embellishment is generally restricted to plain horizontal bands of unglazed slip, with sgraffito-scratched wavy lines running through them (Allan and Pope 1990:53).

Totnes pottery was manufactured from the late thirteenth century through to the second half of the eighteenth century in several potteries in Bridgetown Pomeroy, a town located across the Dart River from the town of Totnes (Allan 1984:79-80; Allan and Pope 1990:51). In the intervening years between 1696 and 1714, eleven potters were recorded in the parish registers of the town, indicating the importance of the industry in Bridgetown (Allan and Pope 1990:51). The distribution of the ware was quite restricted to a small area of the South-Devon coast. It was a dominant ware in the nearby town of Totnes, at Berry Pomeroy Castle, Dartington Hall, Buckfest Abbey and Haberton; yet it did not reach as far as Exeter, only 50 km away, nor Plymouth to any remarkable degree (Allan and Pope 1990:53). Historically, by 1675, North Devon fishing ships had largely

displaced those from south Devon at Ferryland. That the ware, popular in seventeenth-century Ferryland, continued to arrive in the eighteenth (as evidenced by this thesis), is proof of continued trade contact with the south Devon coast, particularly the port town of Dartmouth (following Allan and Pope 1990).

Common vessels types for Totnes pottery include dishes, bowls, jars, tripod pipkins, chafing dishes, chamber pots, bucket-handled pots, jars, condiment dishes and rectangular pans (Allan and Pope 1990:53; Straube et al. 2000). One vessel was excavated from the wooden floor. It is a small, plain vessel exhibiting one thick slipped brown stripe on a paler taupe background. The sherd is not diagnostic.

6.5.1.13 Verwood

The fabric of Verwood earthenware is gritty and sandy, and is gray to orange-pink in colour (Temple 2004:36). Although sometimes vessels are entirely of one colour, both colours are often concurrently present in a vessel, with the fabric tending towards gray where the vessel is thick (Temple 2004:36). It is occasionally flecked with hematite and quartz. Glazes vary widely, and can range from yellow to amber, to orange to apple green (Temple 2004:36). Glazes occasionally exhibit reddish streaks caused by the iron in the clay (Temple 2004:36; Straube et al. 2000). Although occasionally incised with wavy lines or impressed with finger-printed bands, the wares are generally undecorated (Straube et al. 2000).

There are several kilns in the Verwood region of east Dorset, which is located 24 km south of Salisbury, to the north of Poole. Potters began producing the ware type as early as the fourteenth century, although the height of Verwod-type production did not occur until the early eighteenth century. The number of kilns declined in the second half of the eighteenth and the early nineteenth centuries in response to the growth of mass-produced pottery (Temple 2004:34).

Verwood accounted for 95 percent of coarse earthenware sold in the post-medieval market at Poole, and the ware has also been found in large amounts in Salisbury, and at the ports of Southampton, Portsmouth and the Channel Islands (Fox and Barton 1986:83; Straube et al. 2000; Temple 2004:146). It appears to have traveled no further west than Dorchester (Horsey 1992:64). Temple notes that the occurrence of Verwood-type pottery in Ferryland assemblages is striking because none of the aforementioned ports are reported as trading to Ferryland during the late seventeenth century (2004:146). It is most likely that the ware was traded to Ferryland through Poole, whose assemblages contain the largest proportions of the ware on the south coast of England (Temple 2004:150).

Common Verwood-type forms include mugs, cups, plates, bowls, dishes, milk pans, tall pots, pots, butter pots, chamber pots, jugs, costrels, pitchers, bottles, tripod pipkins, chafing dishes, porringers and flower pots (Temple 2004:35; Crompton 2001:88; Straube et al. 2000). The remains of one pot were excavated from the dwelling.

6.5.2 Tin-Glazed Earthenwares

Tin-glazed earthenwares are fired at low temperatures, which result in a fine-grained, soft-bodied chaulky ceramic with a lead glaze that has been made opaque white through the addition of tin oxide. The glaze is generally thick enough so as to be noticeably discernable when cross sections of the ware are examined (Pope 1986:112). Some recipes called for the addition of small amounts of copper or cobalt to give a green or bluish tint to the glaze to more closely approximate the look of Chinese porcelain, which it often substituted for (Caiger-Smith 1973:206).

This type of ware was produced in one variety or another all over England and Europe. Depending on the origin of the particular ware, tin-glazed varieties are know according to various names, including faience (French, Dutch or Portuguese), delftware (English), or majolica (Dutch or Spanish). Tin-glazed wares are originally a Middle Eastern invention: production of the ware first began in Mesopotamia in the ninth century (Caiger-Smith 1973:21). With the Moorish occupation of Spain, the tradition was brought to the attention of Spanish potters in the eleventh century (Pope 1986:111-112). The Dutch began mimicking these wares in the early sixteenth century, and the tradition rapidly spread from the Netherlands to England. Production of tin-glazed vessels began in London in the late sixteenth century (Archer 1997:6). The vessels gained fast popularity in England as more affordable substitutes for higher end status-wares such as porcelain (Archer 1997:4). Indeed, some of the vessel forms of tin-glazed earthenwares, like flared cups and footed saucers, are originally Chinese forms (Pope 1986:113).

The cultural varieties are generally distinct from one another by decoration: fabrics are more similar than they are dissimilar and all can be generally described as above. From Structure 15, 137 tin-glazed sherds represent a minimum of eleven vessels. Another 32 sherds were too fragmentary to warrant designation either as separate vessels or as parts of identifiable vessels. Two plates (one with a bluish-white glaze, the other cream with blue geometric decoration), one white ointment pot and one unidentifiable vessel form are of unknown origin. Each of the other vessels have been identified by country below. In each country of origin, blue has predominated as the principle color used in the decorative brushwork that characterizes the ornamentation on tin-glazed vessels (although, in addition to blue, Noël Hume notes that copper green, manganese purple, antimony yellow and iron-rust orange were also occasionally employed [1969a:106]). The general regional characterization of wares is as follows:

English Tin-Glazed Earthenware (Delftware): Fabrics range from cream to buff or yellow, and sometimes pink. Glazes can be pinkish or purplish in hue and are often rife with fine cracks and tend to delaminate very easily (Pope 1986:116). A lead glaze is occasionally applied to the reverse side of vessels (Stoddart 2000:38). Blue monochrome brushwork is most common, of flowers, foliage, birds or human figures. One English tin-glazed bowl was excavated with a pinkish glaze on the interior of the bowl and a buff lead glaze on the reverse. The bowl has a monochrome blue abstract geometric decoration (see Figure 6.6). A second English bowl, also with a pink interior glaze and

buff exterior lead glaze exhibits an abstract flower design accented with pale purple geometric lines (see Figure 6.7).

Iberian Tin-Glazed Earthenware (Majolica): Fabrics have a sandy texture and are cream to beige in colour. Glazes tend to be cream to beige, and vessels decorated in free blue or magenta brushwork. Glaze on the reverse-side of Iberian wares tends to have pin-sized holes caused by air bubbles in the glaze (Stoddart 2000:41,43). Spanish wares seem to be decorated in a slightly darker grey-blue hue compared to Portuguese vessels (Stoddart 2000:41). Common motifs are dots, rings, bands and stylized geometric and floral designs (Pope 1986:114). Distinguishing border motifs mimic Chinese porcelain (for a discussion, see Crompton 2001:115 and Stoddart 2000). One Portuguese tin-glazed plate was excavated. Small red inclusions in the fabric distinguish the ware from its Spanish counterparts (Stoddart 2000:43). The plate is decorated with mauve and blue lines and dark blue flowers around its rim (see Figure 6.8).

French Tin-Glazed Earthenware (Faience): Fabrics are often pink to salmon to red-brown, but also come in shades of grey, cream or buff. Glazes are thick and white and generally adhere well. They occasionally have a light blue or light green hue, and are usually decorated in blue floral-motifed brushwork (Stoddart 2000:40). In the eighteenth century, brown faience, a white-bodied ware with a thick brown tin-glaze, became widely popular (Pope 1986:115). One faience plate and a matching teacup and saucer were excavated from the wooden floor. The plate has a strong blue-green tint and is decorated

Figure 6.6: English Delftware bowl (Vessel C128)

Figure 6.7: English Delftware bowl (Vessel C129)

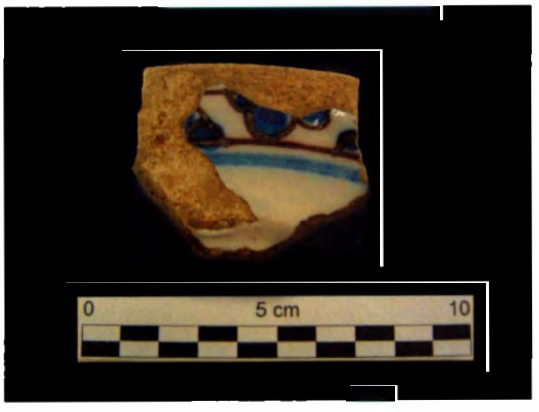


Figure 6.8: Portuguese Fainça plate (Vessel C133)

with blue flowers and thinly painted dark brown brushstrokes (see Figure 6.9). The matching teacup and saucer are similarly tinted, and have a pattern of small blue flowers and green vines.

Dutch Tin-Glazed Earthenware (Delftware): Dutch delftware has a buff to yellow fabric which is very soft and absorptive, which means that the tin-glaze adheres very well to vessels and is much less apt to crackle the way that English delftwares do (Pope 1986:115). Glazes range from brilliant, shiny white to a more matted grey-tinted white (Stoddart 2000:39). The brushwork has angular, rather than rounded edges due to the Dutch use of squared-off paint brushes, and features monochrome blue flowers, foliage and scrolls which are heavily influenced by Chinese design (Stoddart 2000:39). One unidentified Dutch vessel was excavated, exhibiting a high-gloss white background with blue brushstrokes.

Traditional forms of tin-glazed vessels, which are common but not necessarily produced by all industries, include dishes, plates, saucers, bowls, cups, jugs, porringers, small bottles, drug and ointment pots (subsumed under the heading of "galley pot"), tiles, and chamber pots (Noël Hume 1969a:111; Pope 1986:113). With the exception of brown faience wares and galley pots, tin-glazed wares were status wares, and were restricted to social vessel forms; they were used for the display and consumption of food and drink.

Figure 6.9: French Faience plate (Vessel C130)

6.5.3 Coarse Stonewares

Ceramics which have been fired to temperatures between 1200°C and 1350°C are considered stonewares (Rice 1987:6). The high firing temperature ensures that the ceramics reach a waterproof, vitrified state. Stonewares are extremely hard and dense. Colours range from white to dark brown and the texture, while more smooth than earthenwares, can range from smooth to coarse. Most stonewares that were imported to the Colonies came from England, France and Germany. Stonewares may be unglazed, salt-glazed or ash-galzed.

6.5.3.1 English White Saltglazed

English White Saltglazed stoneware is a thin, fine-textured gray to white-bodied ware, with a highly characteristic pitted glossy surface. Traditional white salt-glazed pottery dates to no earlier than 1720 (Noël Hume 1969a:114). This ware type is a strictly white-bodied ware. Recent excavations in Fulham however have proven that an earlier phase of white-ware production began as early as the mid 1690s (see Green 1999; Noël Hume 2001:199). This early development was a grey pasted ware which was dipped into a whiter clay. This whiter clay would later make up the entire fabric of the ceramic. It was a money-saving practice; until roughly 1720, purer white clays were more expensive than grey clays. Once prices dropped on the whiter clays, production of the earlier dipped variety ceased and the industry became saturated with the rapidly popular new entirely white ware (Louise Richardson pers. comm.). Dipped English White Salt-glazed is differentiable from its later counterpart not only by the visible white band on the grey

fabric, but also because its rims and edges often have a characteristic brown oxide coating where the slip tended to fall away during firing (Noël Hume 1969a:115).

Once traditional white salt-glazed appeared on the market, it gained rapid popularity and almost immediately appears in large numbers in the colonies. The virtue of this immense and rapid popularity is that if a site dates to after the early 1720s, English White Salt-glazed pottery will almost certainly be present on the site. It is thus a highly useful ware for dating a site. Three small sherds of dipped white salt-glazed were recovered, and due to a lack of differentiating characteristics were lumped together into one unidentifiable vessel. Common vessel forms of the dipped variety of English White Salt-glazed include teapots, cups, mugs and pitchers (Gusset 1980:18). The absence of traditional English White at this domestic site provides a *terminus ante quem* of c.1720. The fortunate presence of the dipped variety further defines the end of the occupation: because dipped English White Salt-glazed only became widely available in the Colonies after 1715, the bracketing end date of the site can be refined to somewhere between c. 1715-1720 (Louise Richardson, pers. comm.; Neiman 2006).

6.5.3.2 Normandy Stoneware

Normandy stoneware has a dark brown to purple fabric with a dark surface margin. The surface of the ware is mauve-brown to black (Allan 1984:148). These wares were produced in the Bessin-Cotentin and Domfront regions of Lower Normandy, France. Chrestien and Dufournier note that fabric colour is based upon area of manufacture:

wares produced in Bessin-Cotentin have a characteristic dark wine-red fabric, and wares from the Domfront region have a beige to beige-brown paste (1995:91; Crompton 2001:128-129).

In England, the ware is found mainly in coastal towns (Hurst et al. 1986:100). Examples have been found in small quantities both in Exeter and in Plymouth (Allan 1984:113; Allan and Barber 1992: Table 1). Normandy stoneware appears to be confined in North America to the Atlantic Coast, particularly the area around the Gulf of St. Lawrence (Chrestien and Dufournier 1995: Figure 5). The highest concentrations are found at the Fortress of Louisbourg. The ware has also been found in seventeenth-century contexts at Ferryland, in Red Bay, on Newfoundland's Northern Penninsula and at Place-Royale Quebec (Crompton 2000; Crompton 2001:129). Forms of Normandy stoneware include jugs, pots, ewers, bowls, jars, and bottles and usually have squat bodies and heavy flanged rims (Chrestien and Dufournier 1995:91; Crompton 2001:129; Hurst et al. 1986:101). A rim, possibly of a jug or an ewer has been excavated from the later occupation floor.

6.5.3.3 Rhenish Stoneware

Rhenish Stoneware is part of a tradition of German stoneware that originates in the Rhine valley, in several districts on either side of the Rhine river. The different types of wares available in each district are generally decipherable from one another by their forms, but more so by their decorations (Gusset 1980:143). The two of these districts most

important to this study were centered in Raeren and Frechen and began in the mid-1500s to produce a brown stoneware with a hard, thin body and generally a light grey to tan paste, although Pope notes that it can also fire to pink, yellow or orange colours (1986:119). The brownware has a very thick salt-glaze which tends to develop a flecked and speckle surface due to an iron oxide content which tends to cause the glaze to agglomerate (Gusset 1980:143).

Vessels were related mostly to the consumption of beer, a past-time which grew increasingly popular in Germany from the beginning of the sixteenth century onwards (Gusset 1980:141). Thus, common forms were mugs, tankards, jugs, and bottles meant for use mainly in taverns. The most common decorative motifs on these brown vessels consisted of large heraldic medallions, relief bands of inscriptions or images of people or scenes, and very frequently, the face of a bearded male which appeared exclusively on the necks of globular bottles, on the opposite side of the handle (Gusset 1980:147). Such bottles, known as "bellarmines", are the most notorious of the Rhenish brown wares (Noël Hume 1969a:55-57). Because the faces on bellarmines seem to evolve over time, they have sometimes been used to date the bottles (Noël Hume 1969a:57). Further research has determined that such analysis is limited however and has suggested that morphology of the body form is likely a better indicator of time (Gusset 1980: 164-65; Pope 1986:119). The bottles, which in the sixteenth century were squat and globular, became more narrow and ovoid from the seventeenth century onwards (Gusset 1980:165).

The wares were widely traded from the mid-sixteenth century on, and are found in virtually all European countries where beer was being consumed (Gusset 1980:156). Throughout the sixteenth and seventeenth centuries, it was exported to England through Dutch ports and from there was sent to the North American colonies (Gaimster 1997:98-105). At the start of the eighteenth century it began to arrive in notably large quantities at colonial sites, and remained very popular until about the third-quarter of that century (Gusset 1980:157). It was at this point that English white salt-glazed reached its height of popularity. One vessel was excavated from this site. The fragments are too small to confirm a form, but one sherd does contain a part of a medallion-like decoration.

6.5.3.4 Westerwald

At the beginning of the seventeenth century, the Westerwald and Raeren areas of Rhineland began to simultaneously produce another stoneware with a very hard, light-grey fabric and a blue-grey surface (Pope 1986:120). The Raeren potters in fact migrated to Westerwald at the start of the century, bringing their moulds along with them and making the early Westerwald forms virtually indistinguishable from those of the Raeren potters (Hurst et al. 1986:221). By 1725, Westerwald was making wares distinct to the region (Gaimster 1997:252). It, like the brown Rhenish wares, was very popular up until the third-quarter of the eighteenth century, reaching England and the colonies via the same trade routes as the Rhenish brown until it was replaced by the scratch-blue variety of English White, developed by English potters specifically to counteract the German exports (Gusset 1980:157).

Westerwald stoneware is very hard and has a light grey paste with a blue-grey surface (Pope 1986:120). The clear salt-glazed finish allows the blue-grey colour to show through and gives it a pebbly, "orange-peel" like texture. Cobalt blue was the dominant colour used to highlight applied or incised decorations, and was applied to the vessels as glass enamel. Early wares generally had floral and geometric designs, as well as heraldic motifs (Pope 1986:120). At the end of the seventeenth century, medallions heralding royal figures pictorially or via their crown monograms became very popular. Such monograms tended to refer to one of the eighteenth-century rulers: W. R. for Wilhelmus Rex (1689 1702); A.R. for Queen Anne (1702-1714); G. R. for George Rex, either George I (1714-1727) or George II (1727-1760) (Gusset 1980:153-54). Other eighteenth-century decorations included incised scrolls, foliage and animals. Like its brown predecessor, this grey Rhenish stoneware was geared towards the consumption of beer. Dominant forms were mugs, cups, and jugs. Westerwald chamber pots are not uncommon, perhaps to help to manage the consequences associated with the use of its other forms. Four vessels were identified from the sherds excavated from the wooden floor. Two were unidentifiable. Two others were both mugs and both exhibited the crests of George I, dating the mugs to c.1714-1727[5] (see Figure 6.10).

[5] Dates gleaned from other artifacts in this assemblage, which suggest a *terminus ante quem* of c. 1720, have dictated that the crest more likely dates to the reign of George I than to his son.

Figure 6.10: Westerwald mugs exhibiting crests of George I (c.1714-1727). (Vessels C123 and C124)

Table 6.1a Frequencies of Wares and Minimum Number of Vessels by Type: Gravel-Floored Occupation (c.1697-1705/08)

Source and Type	No. of Sherds	Min. No. of Vessels	Frequency of Ceramic Type	Identifiable Forms
England Bristol-Staffordshire	4	2	5	
Exeter Coarse Sandy	4	1	3	
North Devon Gravel-Tempered	54	14	37	1 tallpot; 2 pots; 2 fleshpots; 1 dish; 1 beverage consumption vessel
North Devon Smooth	52	13	34	1 pot; 2 tallpots
North Devon Whiteware	3	1	3	1 drug pot
South Somerset	1	1	3	
Portugal Merida-type	8	3	8	
German Rhenish Stoneware	2	1	3	1 drinking vessel
Tin-Glazed	34	1	3	
Unidentified CEW	35			
Total	203	38	99	

Table 6.1b Frequencies of Wares and Minimum Number of Vessels by Type: Wood-Floored Occupation (c.1705/08-1720s)

Source and Ware Type	No. of Sherds	Min. No. of Vessels	Frequency of Ceramic Type	Identifiable Forms
England	20	8	8	2 mugs, 1 galley pot
Bristol-Staffordshire				
Buckleyware	3	2	2	1 butterpot
Borderware	1	1	1	
Exeter Coarse Sandy	2	1	1	
Midlands Purple	4	1	1	1 pitcher
North Devon Gravel-Tempered	145	35	35	4 pots; 1 jar; 1 fleshpot; 1 bottle
North Devon Smooth	103	13	13	2 tallpots
North Devon Sgraffito	3	3	3	
South Somerset	7	3	3	1 drinking vessel
Totnes	1	1	1	
Verwood	1	1	1	1 pot
Dipped English White Salt-glazed	4	1	1	
Portugal	42	11	11	1 jar
Merida-type				
Saintonge	3	1	1	
Normandy Stoneware	1	1	1	1 ewer
Spain				
Spanish Heavy	1	1	1	1 olive jar
Italy	1	1	1	
North Italian				
Westerwald Stoneware	13	4	4	
Tin-Glazed	103	11	11	2 bowls; 4 plates; 1 dish; 2 teacups; 1 saucer; 1 ointment pot
Unidentified CEW	37			
Total	496	101	101	

Table 6.2 Comparison of Frequencies of POTS Categories at Ferryland and other Comparative Contexts

Context	Date	Kitchen and Dairy	Cooking	Food Service	Beverage Service	Hygiene	Total %	Total No. of Identifiable Vessels[1]
Ferryland Area F Structure 15A[2]	c. 1697-1705/08	50	16	8	16	8	99%	12
Ferryland Area F Structure 15B[3]	ca. 1705/08-1720s	35	3	20	35	6	99%	34
Ferryland Area E[4] Dwelling	ca. 1697-1770s	11	9	21	49	0	90%	53
Ferryland Area D[5] Dwelling	ca. 1675-1696	49	11	13	23	3	101%	291
Ferryland Area B E143/142[6] Dwelling	ca. 1660-1696	42	8	20	30	1	101%	
Ferryland Area B Level 2b[7] Domestic Fill	ca. 1640-1670	37	13	20	29	1	100%	97
Renews[8] Dwelling	ca. 1640-1670	42	16	9	27	7	101%	50
St. Mary's City STI-23[9] Gentry Dwelling	ca. 1638-1660	38	9	42	7	3	99%	90
John Powell Plantation[10] Kent County Dwelling	ca. 1691-1721	13	19	20	46	2	100%	54
Joseph Howland Site[11]	c. 1694-1725	13	16	33	38	0	100%	136

[1] Note: total does not include vessels with unidentifiable forms
[2] Structure 15A refers to the earlier gravel-floored occupation of the structure
[3] Structure 15B refers to the later wood-floored occupation of the structure
[4] Numbers from Lescovec (2006, pers. comm.) Note: 10% of vessels are unidentified
[5] Numbers from Crompton (2001: Table 4.6)
[6] Numbers from Nixon (1999: Table 6.6)
[7] Numbers from Pope (1986: Table 10)
[8] Number from Mills (2000: Table 3.2)
[9] Numbers calculated by Pope (1986: Table 19)
[10] Numbers from Cunningham (2006: Table 16)
[11] Numbers from Bragdon (1988)

6.6 Ceramics and Social Status

Ceramics can be analyzed in a variety of ways to garner information about its consumers. What follows is a basic discussion of ceramics as indicators of socio-economic status. The section considers the basic ways in which the types of ceramics in this assemblage and their forms can provide information about the inhabitants of this structure.

Historical archaeologists have long assumed that there is a strong correlation between the kinds of ceramics owned by an individual and their economic status. Working under the assumption that the rich will own more "pretty pots" than the poor, archaeological studies have calculated frequencies of artifact classes and used these percentages as a means of measuring economic distance (Beaudry et al. 1988:22). The assumption seems at first a logical one: it makes sense that the rich could afford more expensive ceramics than those in a lower economic bracket. Yet such perspectives have been increasingly problematized by archaeologists over the few decades, as study results have continued to challenge the simplicity (the "unidimentional nature," to use the term employed by Beaudry et al [1988:22]), of research governed by this correlation. For example, in a sample of inventories of middling and wealthy planters in the seventeenth-century Chesapeake, Beaudry et al discovered that listed ceramic collections were modest both in terms of quality and in quantity (1988:22-23). The inventories were otherwise highly detailed, including such insignificant artifacts as "a small parcell of twine," so it is unlikely that ceramics have been inconsequentially omitted. Rather, it is more likely that the wealthy of the Chesapeake were using their money to acquire other ware types.

Beaudry et al emphasize that while ceramics were indeed functional artifacts for the poor, they were optional artifacts for the rich, some of whom chose to act upon the fact that they had access to a fairly unlimited choice of ware types. Thus, pewter, silver, copper alloy, wood and leather vessels were common substitutes, and this fact complicates the methodology of direct comparisons of proportions of ceramics and ceramic types between the classes.

We have become aware of the importance of recognizing the force affected by individual choice upon artifact assemblages at given sites. People of little wealth can decide to acquire a few expensive wares rather than many cheaper ones, to make purchases on credit, or to acquire goods through means other than buying them. A correlating phenomenon is the fact that wealthy people do not always choose to invest in expensive things. One wealthy planter may choose to purchase lots of "pretty pots," while a neighbour, for reasons of his own, chooses to invest his wealth into other objects. To an archaeologist who has bought unconditionally into the aforementioned assumptions, a lower class dwelling yielding expensive wares would be confounding; a wealthy planter exhibiting none would be equally so. Sites and probate inventories from the late-seventeenth and early-eighteenth century Chesapeake are proving that even wealthy planters with more disposable income were not spending their money on acquiring expensive, status laden objects; rather, they were spending it acquiring *more of the same* types of things that existed in lower class households (Poque 2005; King and Chaney 2003:261). This fact remained true until the consumer revolution came to be fully

actualized in the second quarter of the eighteenth century and consumers began to actively seek to acquire status-laden goods in earnest in order to openly demonstrate their social status (see Carr and Walsh 1994; Carson 1994).

With an awareness of the need that has been demonstrated by such studies to analyze artifact assemblages in more broader terms (i.e.: by expanding our interpretations beyond simplified considerations of social status and more into questions of identity and individual choice), I also recognize that in practice, there is often a close correlation between affluence and associated proportions of higher-end ceramics (Allan 1984:103). The fact remains that there is a whole spectrum of ceramic types which range from the purely functional to the extravagant. Further, often people of the poorer classes find themselves unable to acquire expensive goods, and so the inclusion of more expensive wares can be an indication of the presence of wealth (Pope 1986:194). More generally, the inclusion of a higher frequency of wares (of any type) is a good indicator. Thus, ceramic variability between sites remains a useful index to wealth, and calculating the frequencies of ceramic types in a given collection in relation to others can allow the archaeologist a cautious proxy for measuring relative social status. If one household possessed a significantly higher proportion of wares, and particularly of non-essential, expensive wares (i.e.: porcelain or tin-glazed earthenware, which cost about five to seven times more than coarse earthenwares [Pope1986:197-198]), they likely had more disposable income than a neighbour who owned only North Devon and other utilitarian wares, and in less numbers.

Frequencies of ceramic types, which were indicated in Tables 6.1a and 6.1b, are thus useful, as previously described. It is very noteworthy that the minimum number of vessels significantly increases from the gravel-floored occupation (MNV of 38) to the later wood-floored occupation level (MNV of 101). Table 6.4 provides a comparison of the frequency of identified tin-glazed vessels from Structure 15 to those from other domestic structures in Ferryland, Renews and St. Mary's City. It is also interesting to note that there is a significant difference in the frequencies of tin-glazed vessels between the two occupations of this Area F dwelling. During the 1697-1705/08 occupation of the building (initial resettlement), tin-glazed vessels make up only three percent of the total number of vessels, a number shared only by the Renews household, the assemblage of which reflects a family of middling to lower-middling status (Mills 2000). During the second phase of occupation, the frequency rises to eleven percent, a number very closely approximating those of the pre-raid middling households at Ferryland. By the end of the first decade of the eighteenth century, the inhabitants of this household may have had considerably more disposable income compared to the initial reoccupation period. Alternatively, this may simply reflect that tin-glazed ceramics were becoming more frequently available during this time period as trade began to reapproach pre-1696 levels. Either way, it appears that by this point, the settlers of Ferryland were beginning to regain and approximate the earlier economic success of their pre-raid predecessors.

Table 6.4 Comparison of Tin-Glazed Vessels at Ferryland and other Comparative Contexts

Context	Date	No. Tin-Glazed Vessels	Total No. of Vessels	Tin-Glazed Vessels as Proportion of All Vessels
Ferryland Area F Structure 15A[1]	c. 1697-1705/08	1	38	3%
Ferryland Area F Structure 15B[2]	c. 1705/08-1720s	11	101	11%
Ferryland Area E[3] Dwelling	c. 1697-1770s	6	53	11%
Ferryland Area D[4] Dwelling	c. 1675-1696	33	311	11%
Ferryland Area B E143/142[5]; Dwelling	c. 1660-1696	25	182	14%
Ferryland Area B Level 2b[6]; Domestic Fill	c. 1640-1670	14	78	18%
Renews[7] Dwelling	c. 1640-1670	2	50	4%
St. Mary's City STI-23[8] Gentry Dwelling	c. 1638-1660	36	90	40%

[1] Structure 15A refers to the earlier gravel-floored occupation of the structure
[2] Structure 15B refers to the later wood-floored occupation of the structure
[3] Numbers from Lescovec (2006, pers. comm.) Note: this count includes two porcelain vessels.
[4] Numbers from Crompton (2001: Table 4.3)
[5] Numbers from Nixon (1999: Table 6.5)
[6] Numbers from Pope (1986: Table 12)
[7] Number from Mills (2000: Table 3.2)
[8] Numbers calculated by Pope (1986:201)

Ceramic type is not the only attribute to indicate status: the presence or absence of certain ceramic forms in an assemblage can be just as telling as the fabric of which it is made. Vessel frequencies by Ferryland POTS category are summarized in Tables 6.5 and 6.6. A number of inferences can be drawn from this information. A high number of storage vessels in both assemblages (i.e.: tall pots, storage jars and pots) demonstrates that Ferrylanders in the eighteenth century were highly dependent upon imports for goods (refer also to Tables 6.1a and 6.1b). This is logical: Ferryland was a fishing society much more so than it was an agricultural one. Without the ability to grow much of their own food, the inhabitants of Ferryland were necessarily reliant upon trade for acquiring goods. This was so in the seventeenth century; it clearly continued to be so in the eighteenth. In the collection from the initial reoccupation period (gravel-floored phase), the rest of the assemblage is fairly homogenous. In the later wood-floored occupation (c.1705/08-1720s) the distribution changes dramatically. Cooking vessels are under-represented. This suggests that the inhabitants were probably also using other types of vessels in which to cook their food. Food and beverage service vessels make up 52 percent of the assemblage. The fact that food and beverage service vessels feature so highly in the collection is further evidence of increasing economic status; a large number and a wide variety of serving vessels had been acquired, evidence for a shift away from the merely utilitarian. Table 6.2, which compares the frequencies of POTS categories at various sites, also illustrates this shift well and demonstrates again that while the earlier phase of occupation at Structure 15 reflects the economic stress of wartime and resettlement on the

Table 6.5 Frequencies of Ceramic Vessels by POTS type: Gravel-Floored Occupation

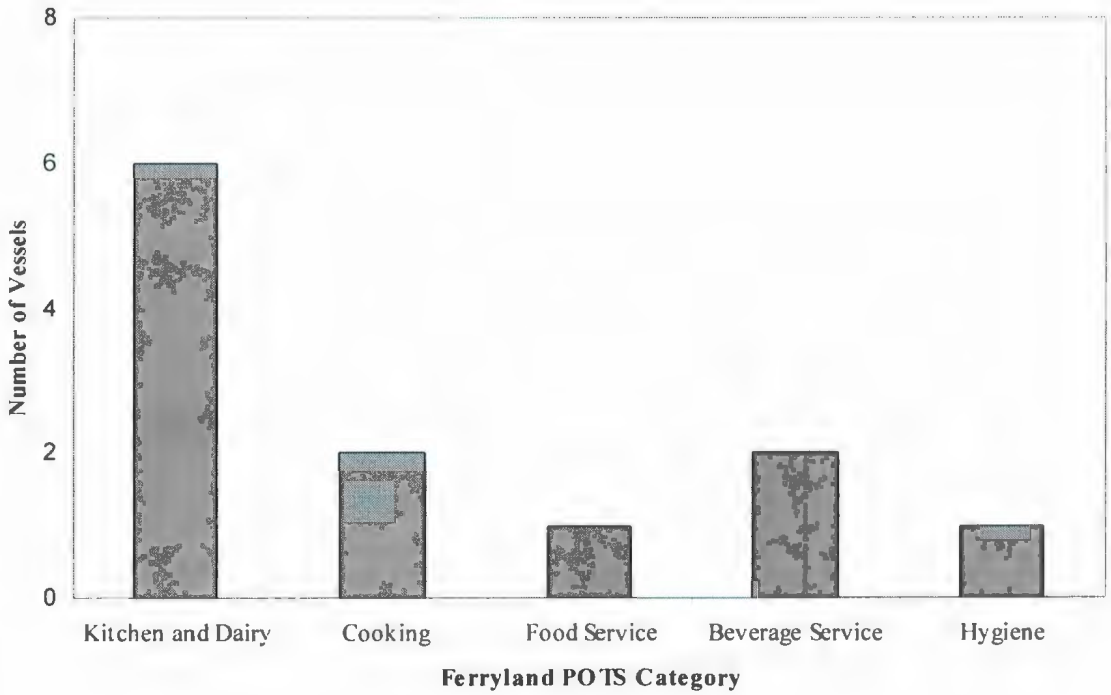
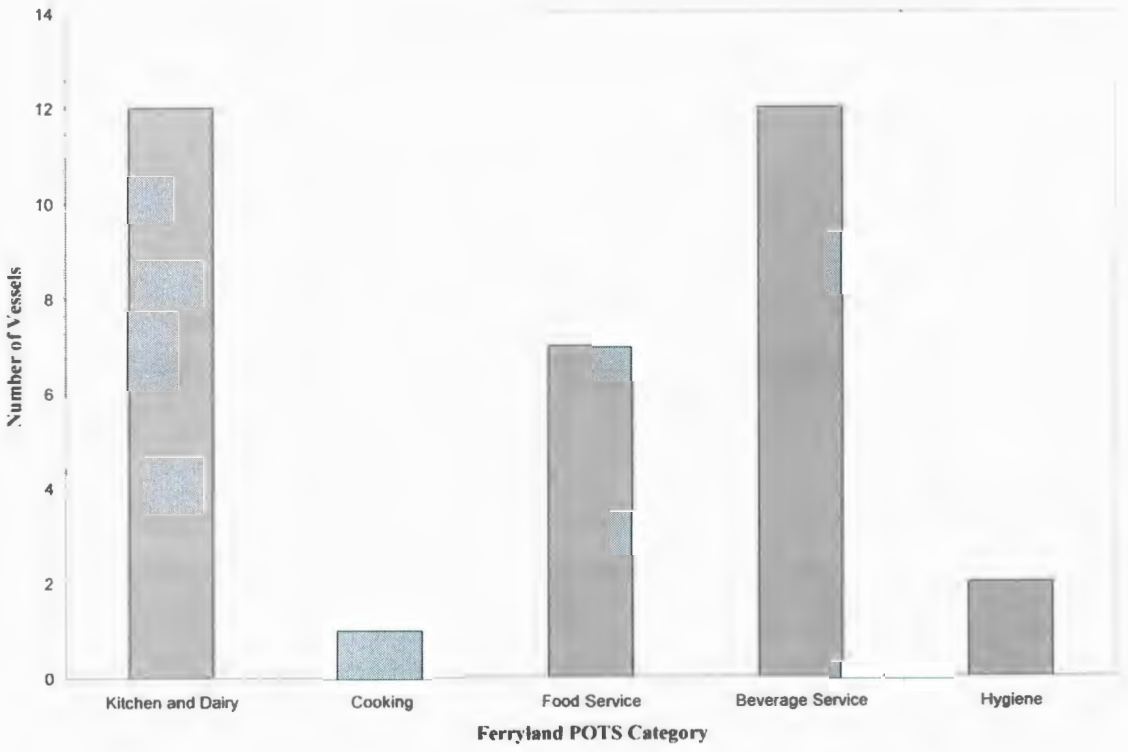


Table 6.6 Frequencies of Ceramic Vessels by POTS type: Wood-Floored Occupation



inhabitants of the household, by the end of the first decade of the eighteenth century the household was beginning to approximate the economic status of the earlier pre-1696 planters and of other contemporary middling households. Further evidence of this fact is that a number of fine vessels and vessel forms which can be associated with higher social status are included in this later assemblage. The presence of a matching tin-glazed tea cup and saucer set is a good example. Tea consumption in the early eighteenth-century colonial world was a luxury; it was also a status-laden, socially driven behaviour. Tea drinking was a ceremonial social activity wherein one's status could be enhanced by the sharing of a precious commodity. It is an unnecessary extravagance, and the presence of tea cups, particularly fancy tin-glazed tea cups, is evidence not only of reasonably elevated social standing, but also a concern with social image and identity. It was a social means of mediating between the classes (Pogue 2005). Nearly as many nice service vessels exist in the assemblage as utilitarian vessels. The fact, however, that the inhabitants were so reliant on ceramic vessels, as opposed to pewter or silver, which is often represented in the assemblages of the upper class along the Chesapeake, indicates that the household probably had limited resources to spend on social niceties (see Beaudry et al. 1988).

The obvious concern with image reflected by the tableware collection reaches beyond the social presentation of wares; it extends in this household to a concern with self-presentation as evidenced by the presence of several hygiene-related ceramic vessels. The presence of several ointment, galley and drug pots emphasizes the use of cosmetics,

medicines and ointments. This category of ceramics makes up about 8 percent of the assemblage of the gravel-floored occupation and 6 percent of the assemblage of the wood-floored occupation, demonstrating a concern with personal cleanliness and health.

6.7 Conclusion

This section of the thesis has outlined the methodology employed in analyzing the ceramic assemblage and has detailed the characteristics, forms and vessels identified for each ware type excavated from the structure. Dates for the site were inferred from the presence or absence of various wares. Each ware type present in the collection substantiates the proposed sequence of occupation. In particular, the presence of the Bristol Staffordshire Queen Anne mug, white borderware and dipped English white salt-glazed stoneware, as well as the high frequency of North Devon wares helped to refine the dates bracketing the occupation: 1696 to c.1720. The chapter has also presented a discussion of the implications that the ceramic assemblage has for indicating the social status of the occupants of Structure 15, which, while somewhat affected during the stress of the initial resettlement of the site, appears by the 1720s to begin to approximate the earlier economic status of the pre-raid colonists, as well as settlers of similar class in other contemporary contexts in New England and the Chesapeake.

Chapter 7: The Glass Assemblage

7.1 Introduction

This chapter examines the glass assemblage excavated from the structure. It begins with an analysis of English wine bottles, outlining the development of standardized chronologies and the various methods of elucidating dates for the vessels. The methodology employed in this thesis is explained and the wine bottle assemblage is then examined in detail. Following this discussion is a consideration of the presence of case bottle glass in the assemblage. Fine drinking glasses are the subject of the third section of the chapter; a number of these were excavated from this structure. The history of the English glass industry and the morphology of the wine glass are briefly outlined, and the examples from this assemblage detailed. This is followed by a discussion of the implications of the presence of the beverage service and drinking vessels in the assemblage. Following this the other glass finds, which include window glass and two pharmaceutical bottles, are detailed and analyzed.

7. 2 Beverage Containers and Serving Vessels

7.2.1 Wine Bottles

In 1914, E.T. Leeds decided to attempt to trace the evolution of the wine bottle. He began his investigation by relying upon the information provided by sealed and occasionally dated examples found in local Oxford taverns (Dumbrell 1983:153). With this initial venture, a database of bottles of known date was formed, and scholars have since made concerted efforts to create standardized chronologies of wine bottle types.

Bottles are dated by combining a variety of methodologies. A comparative database begins by collecting information, as Leeds did, from a sample of wine bottles with known dates, information most often provided by seals. Occasionally, the archaeologist finds such a seal, and the bottle from which the seal came can be straightforwardly dated without any additional analysis. In most cases, the artifacts are dated through comparison to a known developmental morphology. This is accomplished through visual examination, occasionally augmented by statistical analysis.

7.2.1.1 Bottle Seals

In the seventeenth century, it became fashionable among the upper class to affix glass seals upon their wine bottles. The practice was not merely a trend; glass seals served the practical function of denoting ownership of the expensive objects to beget their reuse. The earliest recorded seal on an intact bottle is from 1657 (sealed R.P.M. 1657). A seal has been found in England dating to 1652 (sealed John Jefferson 1652), but was found without the context of its bottle (Dumbrell 1983:153).

Sealed bottles have an applied seal affixed either to the shoulder or to the side of the bottle. Seals themselves are buttons of glass that have been embossed with the name, initials, identifying symbol, or the address of its owner, for whom the bottle was exclusively blown. While at first the practice was done solely for the nobility, by the mid-seventeenth century, tavern keepers began having their bottles sealed as well, and the

custom was a widespread one in England which extended quickly to the colonies by the end of the century (Wicks 1999:103).

Sealed bottles have significantly facilitated the creation of wine bottle chronologies. One unfortunate fact about bottle seals however is that dates do not always correspond directly to manufacture: they can also refer to vintage, or to important events they were meant to commemorate. For instance, in an analysis of cylindrical bottle seals, Jones found a bottle sealed "W. Leman Chard 1771" which was blown in a mould known to have been patented in 1821 (1986:31). While dating solely by seal can thus be potentially problematic, the dates on sealed bottles have been the principal means through which particular bottle types have been attributed to given periods.

7.2.1.2 Bottle Morphology

From their initial free-blown beginnings between 1630 and 1650, the English wine bottle underwent a steady morphological sequence before achieving its now familiar tall cylindrical shape in the late eighteenth century (see Figure 7.1). Because of this, it is has been possible to create a firm chronology based upon known proportional changes and on modifications to the shape and size of the finish, neck, body and base of the bottle (see Figure 7.2 for an explanation of wine bottle parts). The earliest bottle types had round, globular bases with long necks, usually half again the height of the body, and were popular from 1630 to 1665. After this date, the neck became significantly shorter, possibly "because so tall a neck was liable to be caught in loose sleeves" (McKearin and

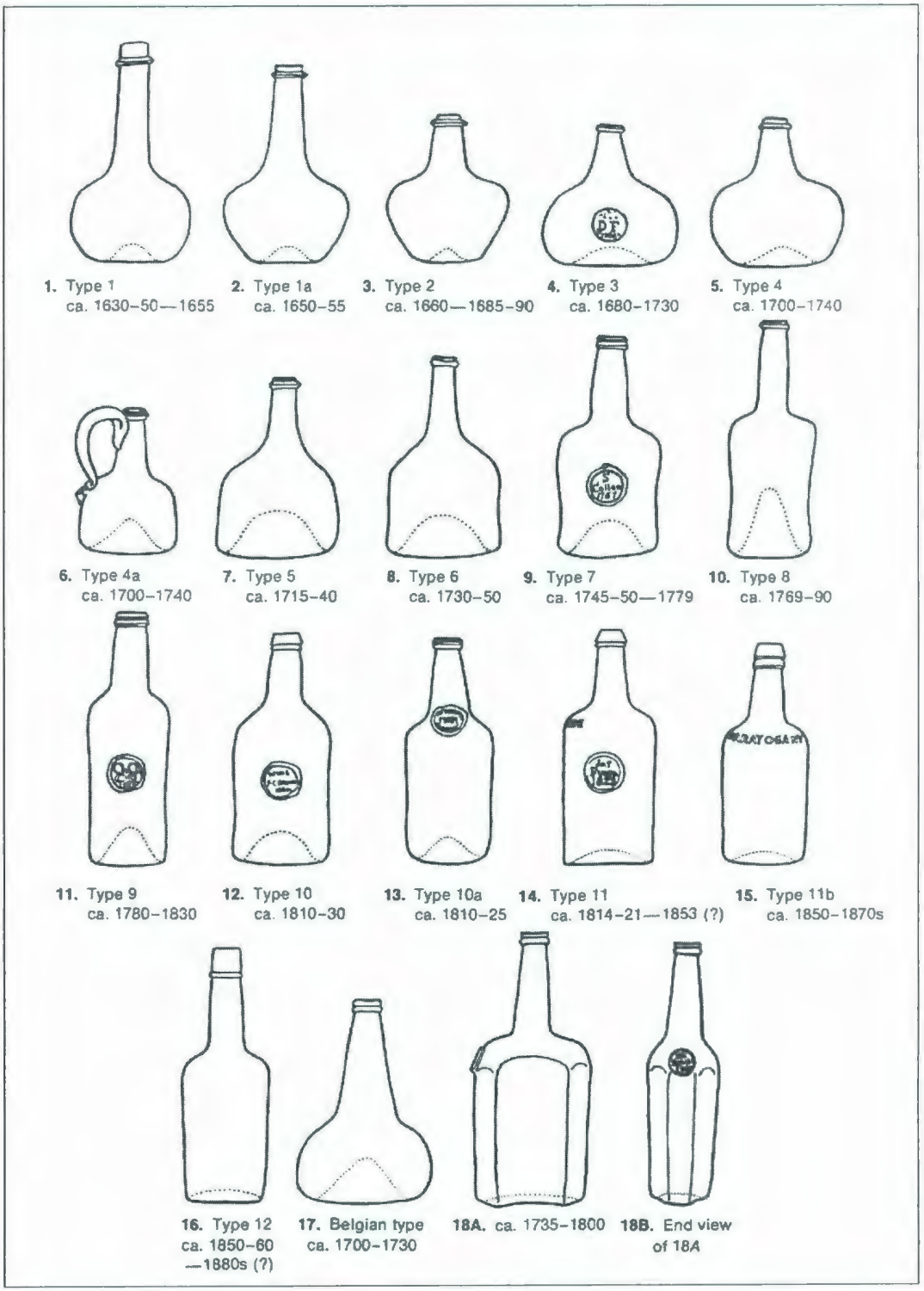


Figure 7.1: Generalized wine bottle chronology (McKearin and Wilson 1978: 207).

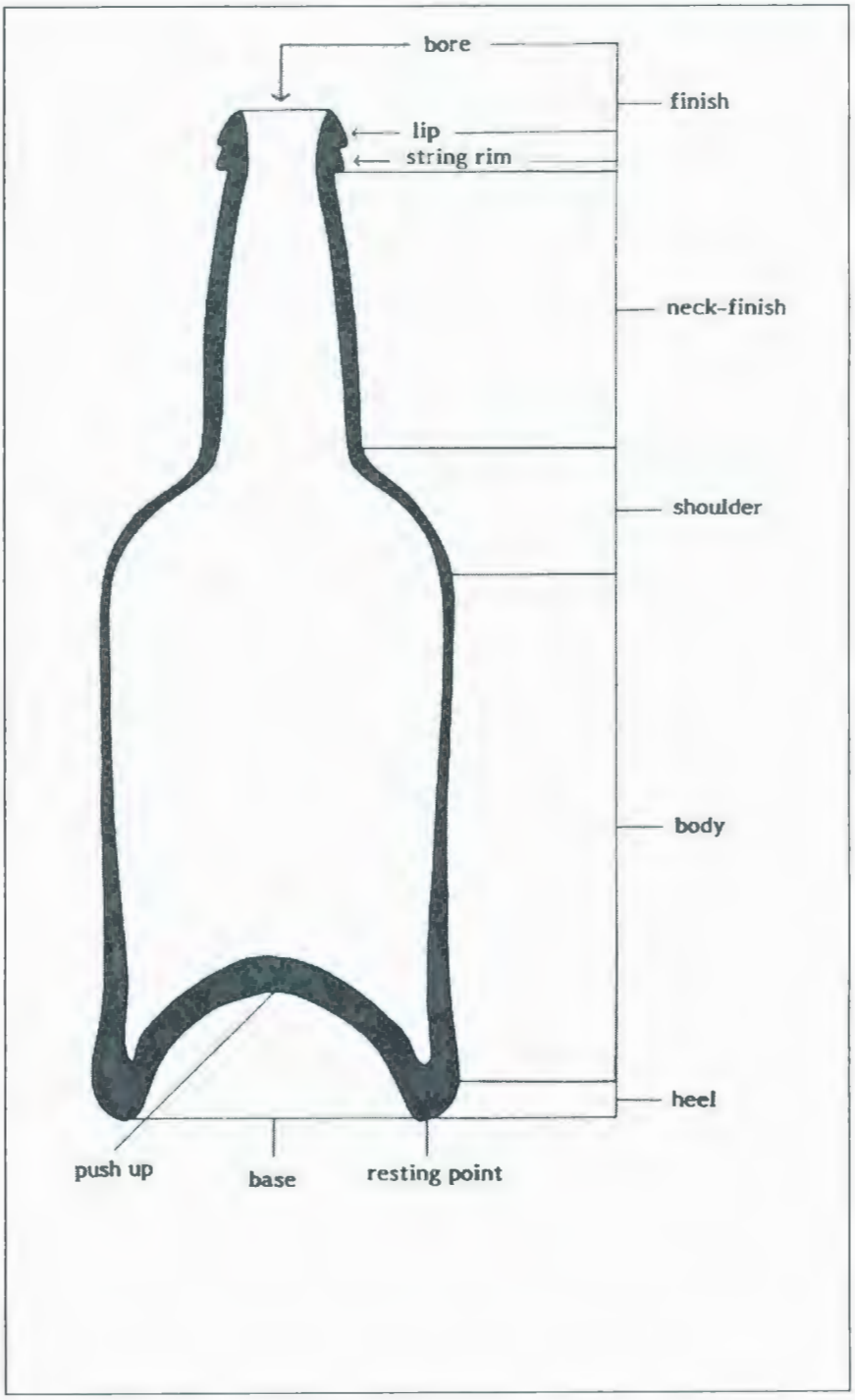


Figure 7.2: Bottle Anatomy (Jones 1986:34).

Wilson 1978:208). At the end of the seventeenth century, a drastic change in bottle form took place. The body became wide and squat, rather like a compressed sphere. The plane of the shoulder became more flat, the neck even shorter, and the pushup higher to compensate for an increased volume capacity created by the broader body of the bottle. At about 1715, wine bottle shape takes its first step towards the cylindrical bottle type. The neck returns to a longer length and the shoulder slopes more gently into the neck. From about 1730 onwards, the bottle continues to morph towards the standard shape that is still in vogue today: a cylindrical body with a small pushup, a short gently curved shoulder and a neck proportionately shorter than the body.

The visual dating of wine bottles by form is generally accomplished through comparison of the vessel with already dated published collections (i.e.: Dumbrell 1983; Jones 1986; McKearin and Wilson 1978; Noël Hume 1961). One of the main difficulties associated with this method is that occasionally, illustrations do not show the bottle in enough detail: the image is too small (Jones 1986:9). This can lead to misidentification. Another problem with this type of dating is that "types" can vary across the literature. Attribution of vessels to types is a subjective exercise: a slight variation may be ignored by some, while for others may be enough to warrant a bottle its own type (Wicks 1999:38). This can make dating confusing for a researcher using multiple sources. Wicks subsequently developed a more objective chronology based upon measurements taken from 70 complete vessels with known dates (1999). The vessels were sorted into discrete groups and metric parameters were assigned to each bottle type. Wicks' typology is a very

useful addendum to the traditional typologies used by archaeologists in this field: the integration of metric parameters in his typology helps to minimize inter-research biases in assigning bottles to specific types.

7.2.1.3 Statistical Analyses

Dating by shape is often accomplished through visual comparison with the kinds of traditional morphologies previously listed. As demonstrated by Wicks' analyses, such diagnostic differentiations can by further augmented by statistical analyses based on measurements of the various parts of the bottle. Popular measurements include bore diameters (both inside and outside), lip to string height, lip height, string rim height, finish height, neck diameter (taken at the top, middle and base of the neck), neck height, body diameter (taken at the top, middle and base of the body), body height, resting point diameter, indent height, bottle height, pontil mark diameter and bottle capacity. With pre-cylindrical bottles (prior to 1720), base diameter, resting point diameter, indent height and pontil mark diameter seem to increase over time, while measurements of bottle and neck height tend to decrease over time. Further, the string-rim moves progressively closer to the lip (Wicks 1999:40-42).

A particular difficulty in dating wine bottles stems from the fact that these artifacts are so often fragmented when found in archaeological contexts. That multiple parts of the bottle exhibit such time sensitive components is thus very helpful. According to Wicks, the most precise indication of time seems to be provided by the resting point diameter of

the bottle: a fortunate fact indeed, since wine bottle bases are the strongest part of the bottle and therefore the most likely fragment to survive (1999:101).

7.2.1.4 The Wine Bottle Assemblage

When sorting wine bottle fragments into vessels, analysis followed the same general methodology as that which was applied to the ceramics. Initially, the 283 fragments were divided by body part (i.e.: body sherds, rim sherds, shoulder and neck sherds, and bases). The MNV of the assemblage was determined by counting bases and rims; where likely, bases were attributed to a rim to keep the vessel count conservative. The remaining sherds were sorted by excavation unit, and mends were attempted between body sherds and diagnostic parts in an attempt to attribute some of the many body pieces to particular vessels. In total, 30 vessels were sorted from the sherds. These are divided by event and illustrated in Table 7.1.

Each of the 30 vessels are variants of the onion bottle form characteristic of the late seventeenth and early eighteenth centuries. The form has a short neck and a round, globular body, and was in vogue from the 1680s to about 1730. Within this period, the onion bottle underwent a gradual and consistent transition in form which aids in further refining the dates of the bottles. On bottles which date between to 1685 and 1700, the string rim has a diagnostic V-shaped beveled edge, and the neck above the string rim is flared, giving the neck a waisted appearance. The body is globular and round (Dumbrell 1983:57). After 1700, the body became squatter and less globular as glass makers began

Table 7.1 Minimum Number of Wine Bottle Vessels by Occupation Level

Gravel-Floored Occupation (ca. 1697-1705/08)			Wood-Floored Occupation (ca. 1705/08-1720s)		
No. of Sherds by Event		Total Minimum No. of Vessels	No. of Sherds by Event		Total Minimum No. of Vessels
Event 659	Event 663		Event 643	Event 645	
40	19	7	193	31	23

rolling the bodies of the bottles in an attempt to make the sides slightly straighter (Dumbrell 1983:62-63). This type of bottle tends to be referred to as the "squat onion" variety (Wicks 1999). By about 1720, the onion bottle forms begin to be replaced by a straight-sided "mallet bottle" form; by 1730, the mallet bottle is a fairly universal form and onion bottles all but disappear (Dumbrell 1983:63).

Dumbrell's descriptions of morphological changes were very useful in preliminary diagnostics of rim fragments. After the initial characterization of the bottles as onion bottles, the vessels were examined closely to attempt to refine their dates within the 1680-1720 range. The work of Wicks (1999) was particularly helpful in this analysis. Wicks' typology provides metric parameters for each bottle type and sub-type. In his analysis, he identified four sub-types of onion bottles. The first, Type C (c.1670-1688), is a transitional form which still retains some of the characteristics of earlier shaft and globe bottles. Types D (c.1689-1700) and E (c.1682-1705) are traditional onion bottles. Type F (c.1698-1721) is the squat onion type (see Wicks 1999 for measurement parameters of each type). Measurements of those diagnostic pieces which were complete enough (n 7) were compared to Wicks' typology. Measurements of all of the bottles from Events 643 and 645 (the later dating wooden floor) fall within the measurement parameters of the squat onion Type F (c.1698-1721). The earlier gravel floor yielded only one vessel which could provide diagnostic measurements. These measurements fall into the overlapping grey area between Types E and F, providing a date range of c.1682-1721. Visually, the bottle more closely approximates what Dumbrell considers early

onion bottle forms: it exhibits a very distinctly flared lip and waisted neck (1983:57). That this bottle should fall into this earlier bracket is logical, given that event 663, from which it was excavated, stratigraphically predates the events of the other vessels.

Noticeably less sherds were recovered from the earlier context of the dwelling than from the later. A total of 7 vessels were identified among the 59 sherds of the earlier occupation, as compared to 23 identified vessels among 224 sherds from the second occupation[1].

7.2.2 Case Bottles

The dwelling's assemblage includes 4 body sherds of light green glass; one from the gravel-floored occupation and three from the wood-floored occupation. The glass most closely resembles that of case bottles, which were used to ship distilled spirits throughout the seventeenth and eighteenth centuries. The thin-walled squarish bottles were made of a light olive green to pale amber metal and were blown in either clay or wooden moulds. The shoulder, neck and lip were formed by tooling and manipulation (McKearin and Wilson 1978:225). Case bottles had a nearly flat base, a short neck and an everted lip (Noël Hume 1969a:62). Walls were frequently very slightly concaved (McKearin and Wilson 1978:225). The bottles were produced in pint, quart, three-pint, two-quart,

[1] The division of the remaining base fragments, which were not large enough to allow for Wicks' measurements, into vessels is, as such analyses always are, a subjective count, and is based on my own interpretation of differences between sherds. It is the nature of such analysis that multiple researchers may choose to divide sherds differently. The decisions I have made here were based upon my own interpretations of variability in sherd characteristics, as well as an inability to further refine the vessel count through proximity analysis. The estimate may be high, having erred on the side of avoiding unjustified grouping.

gallon and double gallon sizes, and were transported in wooden cases, easily so because of their squared-off shape (McKearin and Wilson 1978:224-225).

Regions of production do not have distinct characteristics, and thus the bottles are not particularly useful as indicators of trade patterns (Crompton 2001:161). Furthermore, case bottles do not display any inherent typological morphology, and so are not particularly useful for dating sites either. What the presence of case bottle sherds on this site does tell us is that the inhabitants of the early eighteenth century at Ferryland were certainly still consuming spirits, though to a significantly less degree than the apparent rate of wine and beer consumption (see Table 7.2 for a comparison of the frequency of spirit containers relative to beer and wine containers). The relative absence of case bottles here as compared to earlier structures at Ferryland may be interpreted as a declining interest in spirits consumption at the site (see Crompton 2001; Nixon 1999). It is, however, likely less a result of a lack of interest than it is a reflection of the increasing popularity of the onion bottle form previously discussed. In the early eighteenth century, although case bottles did continue to be made and exported, the dominant beverage storage type very quickly became the wine bottle and the onion form tended to displace the case bottle on the majority of colonial sites from the eighteenth century onwards.

7.2.3 Drinking Glasses

Glass was a particularly desirable drinking vessel for wine because unlike pewter or ceramic vessels, glass is clear and so allows the drinker to see the liquid as it being

Table 7.2 Ratio of Spirits Containers to Other Beverage Service Vessels[1]

Gravel-Floored Occupation		Wood-Floored Occupation	
Case Bottles	Other Beverage Service Vessels	Case Bottles	Other Beverage Service Vessels
1	7	3	24

[1] Includes both wine bottles and ceramic jugs

imbibed. Further, it does not in any way alter the taste of the beverage the way ceramic or metal vessels might (Palmer 1993:57). Two types of drinking glasses were found in this assemblage: English lead glass wine drinking glasses and a Venetian drinking glass.

English wine drinking glasses changed stylistically onwards from the late sixteenth century. Such changes are well documented and well dated (see Bickerton 1986; Noël Hume 1969a:191; Palmer 1993). The early glass-making industry began in Venice, and is extremely well documented (see Barr 1998; McCray 1999). Even after the English industry took over the production of most colonial glasswares, the glassblowers of Venice continued to export unique and elegant wares, high in status and beauty. The remains of one Venetian vessel were excavated from the later wooden floor (Event 643) of the structure. Although no diagnostic sherds remained, the painted purple and white body sherds appear to be cup sherds of a wine glass (see Figure 7.3). A very costly ware, it is the vessel most reflective of a state of elevated status at Structure 15.

The English wine glass industry began during the last quarter of the seventeenth century, under the direction of Venetian glassmakers brought to England (Noël Hume 1969b:10). Early English glassware very closely mimicked the Venetian industry, and so this initial glassware was often termed glasses *a la façon de Venise* (Palmer 1993:4). Glasses of this style are often found in archaeological contexts dating to c.1670-1685 (Noël Hume 1969b:12). In the late seventeenth century, a uniquely English industry developed featuring the creation of lead-crystal glass. Until this point, all earlier drinking vessels

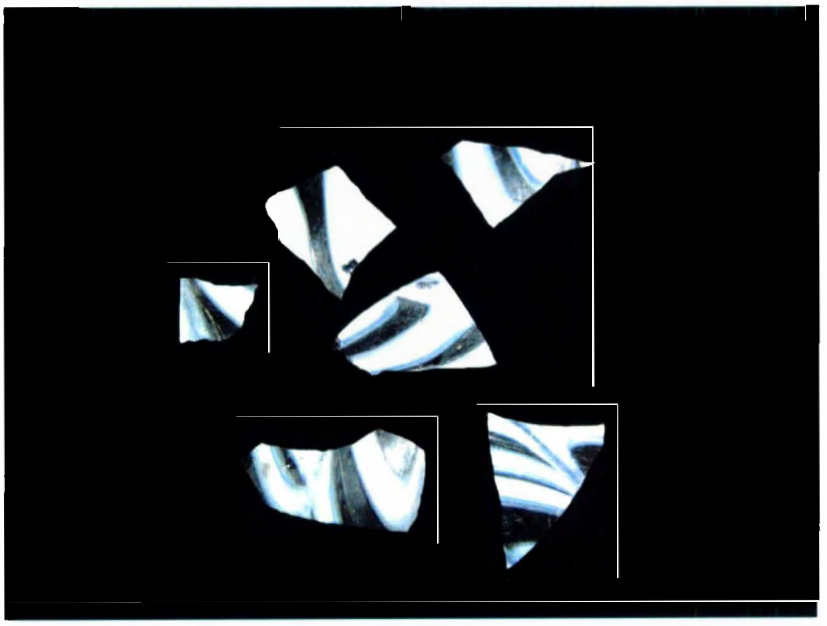


Figure 7.3: Painted Venetian wine glass sherds (Vessel G34)

had been made out of soda glass, following the tradition of the Venetian wares. The English were encountering difficulties in trying to mix their own version of the fabric in the early development of their industry. English-made soda glass vessels tended to develop a lot of small cracks and turn grey and opaque over time (Fryer and Shelley 1997:188). In 1674 the Glass Sellers' Company of England engaged George Ravenscroft to experiment in producing a new glass fabric. By 1676, he had succeeded by creating a thick, high gloss, malleable glass by adding a high content of lead oxide (Bickerton 1986:12). The English Industry was born. Lead glass drinking vessels became very popular because the malleable lead glass material allowed a wide range of highly decorative forms to be developed. By the 1700s, the Venetian influence had all but disappeared, giving way to the production of the uniquely English "baluster" glass (Bickerton 1986:12). The baluster-style glasses of the late seventeenth and early eighteenth centuries had plain cups with heavy, highly decorative stems, the most popular of which were the "baluster" and "inverted baluster" decorative forms which often incorporating air bubbles, or "tears" into the stems (Noël Hume 1969a:189). Stem decorations varied according to fashion over time in a known sequence, and so English lead-crystal glasses are highly datable artifacts.

Three of these distinct wine glass stems were recovered from the later wooden floor (Event 643) of the dwelling (see Figure 7.4). A variety of cup sherds were also found, but were not attributable to one of these three vessels through mending. One vessel has been recovered from the early gravel floor amidst other sherds, but has no diagnostic

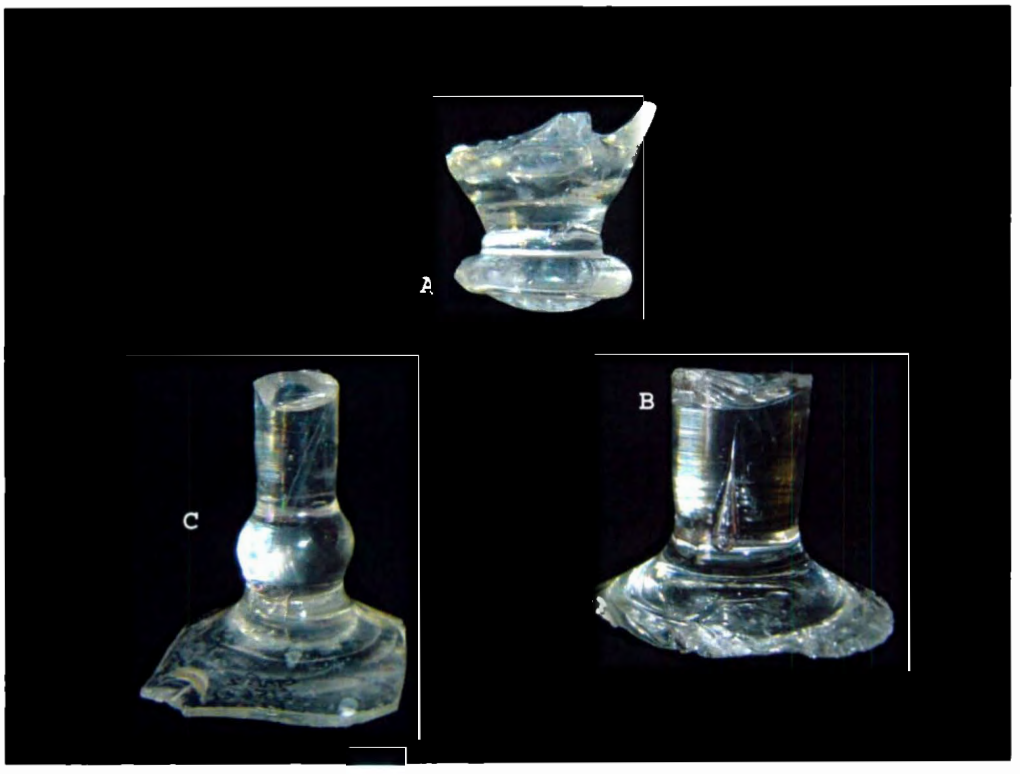


Figure 7.4: English lead-crystal wine glasses: a) c.1710; b) c.1710; c) c.1710-1720 (see Bickerton 1986) (Vessels G31, G33, G32).

characteristics. Each of the three glasses found in Event 643 are of the heavy baluster type. One features an acorn knop at the base of the bowl and dates to c.1710 (Bickerton 1986). The second vessel is the foot and bottom portion of a plain inverted cone-shaped stem with a tear at its base. It too dates to c.1710 (Bickerton 1986). The third features a solid base with a basal knop, above which extends a short straight portion of the stem. The vessel bears similarity to a variety of types with dates ranging from 1710 to 1720 (Bickerton 1986). It is not complete enough to further refine the date.

7.2.4 Beverage Containers and Service Vessels: Implications

Vessels associated with alcohol consumption are important indicators of several social processes at Ferryland. The presence of vessels associated with the storage and consumption of wine are indicative of the continuing importance of the wine trade into the eighteenth-century. The market for wine and other alcoholic beverages in Ferryland was always high (Pope 2004:385-393). All through Ferryland's history, the dried cod that was fished in Newfoundland was exported as part of a vital trade system which resulted in the import of valuable commodities. Of these commodities, wine was paramount (see Pope 2004).

The imbibing of alcohol was, for seventeenth and eighteenth century planters, not only a pleasurable activity, but also a highly social one. The ability to give away alcohol increased one's social status; the act of giving it away increased one's social credit (Pope 2004:431). The high frequency of beverage vessels in archaeological assemblages at

Ferryland reflects not only an affinity for alcohol; it demonstrates that social status is of concern to the planters. The wine bottles and wine glasses recovered at the site are particularly indicative of these social processes. The beverage service assemblage indicates that the inhabitants of the dwelling were likely of the middling class. The presence of the Venetian glass and the three fine lead-crystal glasses indicates that the inhabitants were concerned with image and had enough resources to acquire high-end consumption vessels. It is noteworthy that the vast majority of the glass beverage service vessels come from the later occupation period of the structure. Table 7.3 illustrates a comparison of the frequencies of beverage service vessels at various dwellings in Ferryland and Renews. The low frequency of wine bottles from the earlier gravel floor indicates that, at least in the early stages of resettlement, the planters had not enough disposable income to purchase alcohol in as high a number as did the pre-raid planters, whose homes demonstrated comparably high quantities of vessels (see Crompton 2001; Nixon 1999). During the seventeenth century, houses more often than not functioned not only as dwellings, but also as tippling houses retailing wine, beer and spirits to the fishermen and other members of the community (Pope 2004:347). The inhabitants of this particular house were early on likely more intent upon acquiring essential commodities to rebuild their lives than they were upon gaining social wealth. The dramatic increase of beverage service glass after the destruction of the gravel-floored level of the house suggests that after this point the occupants began to have a little more disposable income and probably had returned to the earlier practice of selling alcohol, at least at a minor level. The frequency of beverage service vessels at this point very closely approximate

Table 7.3 Comparison of Frequency of Beverage Service Vessels* at Ferryland and Renews

Context	Date	No. of Beverage Service Vessels	Total No. of All Vessels	Beverage Service Vessels as Proportion of All Vessels
Ferryland Area F[1] Structure 15A	ca. 1697-1705-08	9	46	20%
Ferryland Area F[2] Structure 15B	ca. 1705/08-1720s	42	131	32%
Ferryland Area E[3] Dwelling	ca. 1697-1770s	44	71	62%
Ferryland Area D[4] Dwelling	ca. 1675-1696	130	352	34%
Ferryland Area B E143/142[5] Dwelling	ca. 1660-1696	81	214	38%
Renews [6] Dwelling	ca. 1640-1670	16	49	33%

* Totals include glass beverage service vessels as well as ceramic.

[1] Structure 15A refers to the earlier gravel-floored occupation of the structure. Note: Total includes one ceramic vessel, seven wine bottles and one case bottle.

[2] Structure 15B refers to the later wood-floored occupation of the structure. Note: Total includes twelve ceramic vessels, 23 wine bottles, three case bottles and four wine glasses.

[3] Numbers from Lescovec (2006, pers. comm.). Note: Total includes 26 ceramic vessels, 14 wine bottles, two wine glasses and two decanters.

[4] Numbers from Crompton (2001:162; 172; 178; Table 4.8). Note: Total includes 67 ceramic vessels, seventeen wine bottles, 36 case bottles and seven wine glasses.

[5] Numbers from Nixon (1999:165; Table 7.1; Table 7.2). Note: Total includes 55 ceramic vessels, eight wine bottles, fifteen case bottles and two wine glasses.

[6] Numbers from Mills (2000:87-88; Table 3.2). Note: Total includes three wine bottles and two case bottles.

that of the earlier planters. The marked lack of several common tavern-related service artifacts such as decanters, bottle stoppers or punch bowls indicates that this practice was not occurring at such an intensive level as elsewhere on the site (see for example Leskovec 2006).

7.3 Other Glass Finds

7.3.1 Window Glass

Noël Hume discusses two ways in which window glass was manufactured during the colonial period (1969a:233-235). The first type of window glass, which he refers to as "broad glass," was produced by blowing a long tubular bubble of glass, cutting off both ends and slicing it down one side to open it up so that it could be laid out flat on an iron plate. The technique produced rectangular sheets of glass with elongated lines of imperfection. Later in the seventeenth century, a new technique was developed wherein a large bubble was blown and transferred to a pontil iron, where the hole was worked open until a large disc of glass remained. The center of the disc, where the pontil was affixed, was wasted and the disc that was left resembled a crown; and so it was aptly named "crown" glass. Crown glass, which dates to post 1690, has bubble striations that are circular, as opposed to the linear striations found in broad glass (Noël Hume 1969a:233-235). In either case, post-production involved cutting the glass into squares, rectangles or diamonds and joining them together into windows with lead strips (Noël Hume 1969a:233). Twenty-seven pieces of crown window glass were recovered from the wooden floor (events 643/645), and eleven pieces from the gravel floor (events 659/663).

7.3.1.2 Window Glass Analysis

Beyond the striations of imperfections, window glass has no datable characteristics. Furthermore, the pieces are so fragmentary that they can not offer any inferences regarding window size (Noël Hume 1969a:233). Certainly the fragments in this assemblage are too fragmentary to offer much for an analysis of the material: no corner pieces are decipherable to indicate the shape of the panes.

What the presence of these fragments does tell us is that during both occupations, the structure did indeed have windows. Furthermore, the distribution of the glass tells us that the windows were likely located on the western side of the structure (refer to chapter 5 for further discussion). Beyond this, the fragments do not tell much of a story. The presence of window glass is not an indicator of any particularly distinguishing status, although it is interesting that neither the structure at Area B, nor a small mid-seventeenth-century planters' house excavated in nearby Renews had any window glass (see Mills 2000; Nixon 1999) while the Area D dwelling, the "Mansion House" at Ferryland and an administrator's house in Cupids have all yielded window glass (Crompton 2001:189-190). Although this might lead to the assumption that windows were not readily affordable, it remains that window glass was in reality not particularly expensive at the start of the eighteenth century. Davies shows that the price for new lead and glass varied from sixpence to one shilling plus sixpence per foot for glass and between two- and sixpence per foot for lead (1973:84). Window glass was a minor luxury, yet it was in

reality fairly affordable for most of the planters at Ferryland. Its presence here merely proves that the occupants of the dwelling likely did not belong to a lower class.

7.3.2 Pharmaceutical Bottle Glass

Pharmaceutical bottles were being produced in England from the end of the sixteenth century onwards. They are reasonably common vestiges of the colonial world. The most familiar of these bottles were made of a transparent greenish glass, ranging in color from emerald to amber (Noël Hume 1969a:74). Expensive vials made of white glass were also available, but are much more uncommon (McKearin and Wilson 1978:287). Early bottles were blown into four-, six-, seven- or eight-sided moulds and had short necks which were tooled out to form a lip. Small cylindrical bottles were also common (Noël Hume 1969a:73). Around the mid-seventeenth century, deep green or blue-green bottles began to be produced which would become the characteristic pharmaceutical bottles of the eighteenth century. By the middle of the eighteenth century, these began to be made out of clear glass (Noël Hume 1969a:73).

7.3.2.1 Pharmaceutical Bottle Analysis

The bases of two blue-green pharmaceutical vials were excavated from the later wooden floor (events 643 and 645). One bottle had a square base and is of a darker blue-green than the other. The second bottle base is round, and of a lighter blue-green (see Figure 7.5). Their colours suggest that they are both likely eighteenth-century bottles. The paler colour of the second bottle may suggest a late seventeenth-century origin, but careful

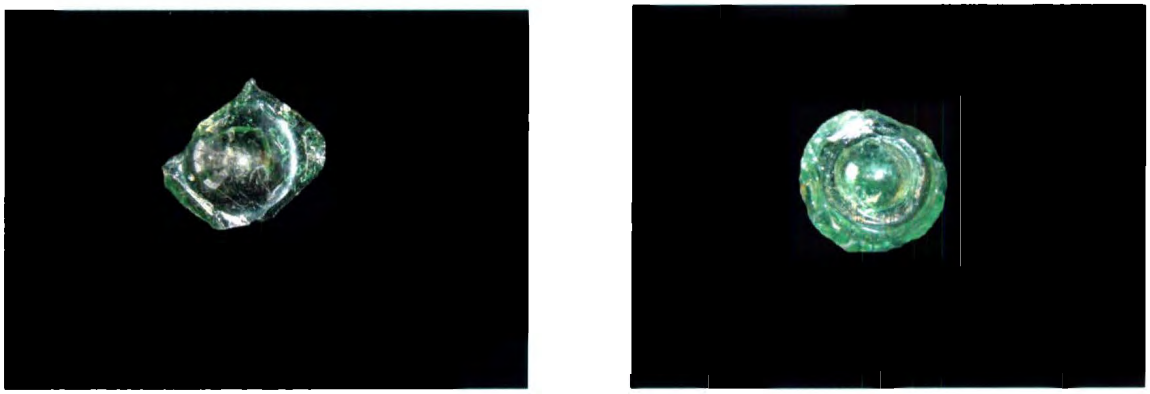


Figure 7.5: Eighteenth-century blue-green glass pharmaceutical bottle bases

(Vessels G36 and G35)

preservation of such bottles is not uncommon (see Crompton 2001). It is certainly plausible that these bottles held medicinal ingredients, it is also true that such vials were used just as frequently for holding toiletry fluids or ink (Crompton 2001:184). The presence of such bottles indicates that the inhabitants of eighteenth-century Ferryland considered medicinal and/or cosmetic matters to be of importance.

7.3 Conclusion

This chapter has outlined the history, forms and development for each class of glass artifact excavated in association with this structure: wine bottles, wine glasses, case bottles, window glass and pharmaceutical bottles. The methodologies employed in the quantification and qualification of each artifact class are explained and the results of analyses presented. Implications for the history of the structure are discussed in relation to each artifact type. I have discussed how the presence of beverage service vessels provides a window into such social processes as trade and the negotiation of social identity. I have also considered the ways in which the number of these vessels varies from the early occupation to the later, and have made several inferences about changes in Ferryland life that is implied by this data. Following this, I analyzed other associated glass artifact classes. The analysis of window glass sherds demonstrates not only the presence of windows in both occupations of the structure, but provides evidence for their placement within the house. Finally, the presence of several pharmaceutical bottles and their implications for hygiene-related concerns was discussed.

Chapter 8: The Clay Tobacco Pipe Assemblage

8.1 Introduction

The clay tobacco pipe assemblage is investigated in this chapter. First, the history of the clay tobacco pipe industry is outlined, discussing both the development of the pipe-making industry and the manufacturing process. Following this, the methods available for dating pipes is explained, and the particular methodology used in this thesis clarified. Finally, the assemblage itself is detailed and analyzed and both production dates and regions of origin are discussed.

8.2. History of Clay Tobacco Pipe Manufacturing

No one knows who made the first clay pipe for smoking tobacco, but it is likely that the Europeans adopted the idea from the American Indians around the middle of the sixteenth century (Ayto 1994:4; Oswald 1975:3). In 1558, smoking pipes were introduced to the people of England and "drinking tobacco," as it was then called, was marketed as a means of warding off disease. Soon, England developed its own industry in order to satisfy the demands of its people, including women and children who also quickly took up the habit. Clay tobacco pipes were very cheap – as consumable as cigarettes – and were thus available to members of all classes (Noël Hume 1969a:296). By the early seventeenth century, tobacco pipe smoking was widespread and very popular and pipes were found everywhere throughout England and the colonies.

As the popularity of tobacco smoking grew, a corresponding pipemaking industry grew along with it. There were sixty-two known pipemakers in London in 1619 (Oswald 1975:8). In 1634, a charter proclaimed that "near 1000 poor people in London and Westminister lived by tobacco pipe making, who for want of such employment are become beggars" (from Oswald 1975: 8). Even allowing for exaggeration, clearly a noteworthy increase in the industry took place in the intervening time. Ayto notes that by 1650, London did indeed boast at least a thousand pipemakers, and that the industry had by that point spread all throughout the British Isles and into Holland (1994:14). The industry continued to expand throughout the seventeenth century, and by the eighteenth century, nearly every town in England boasted at least one pipemaking family (Ayto 1994:14).

8.2.1 Pipe Manufacture

With the exception of very early hand-made pipes, pipe manufacture has followed the same general procedure since the start of the seventeenth century. Pipes were fired in a two piece mould, which was invented shortly before 1600. Seams that extend along the long sides of sixteenth-century pipes attest to the early commencement of this practice. Pipemakers used white ball clay found primarily in Southwest England in the production of their pipes. Many small towns, such as Broseley in Salop and Amesbury in Wiltshire, featured local deposits (Ayto 1994:19). When it could not easily be acquired locally, clay was imported from the larger quarries at Cornwall, Kent, Devon and Dorset (Ayto 1994, Oswald 1975). The clay was quarried in large, hard clumps which were cleaned, beaten

and kneaded by the pipemakers and their apprentices into a malleable substance (Ayto 1994:24). The clay was next rolled into a roughly shaped stem, which was bored by a wire and then pressed into the stem portion of the mould. The bowl was then formed, placed in the other half of the mould and reamed out by a plunging tool (Bradley 2000:109). The pipes were fired in upright kilns at a temperature of 900 degrees celcius and cooled for about three days (Ayto 1994:24). A slip or glaze was often added to the mouthpiece to prevent the smokers' lips from sticking to the porous clay (Ayto 1994:24, Bradley 2000:109).

8.3 Pipes and Dating

Clay tobacco pipes are an important source of dating information in historical archaeology: they are, indeed, "among the most common vestiges of the early modern period at archaeological sites along the North Atlantic littoral" (Pope 1988:2). Pipe stems and pipe bowls have been used to date colonial sites all over North and South America, as well as historic sites in England, the Caribbean, Australia, and Africa. Pipes of course are seldom marked with dates, although occasionally a commemorative pipe rises to the surface. Such instances are however rare, and so dates from clay pipe bowls as from wine bottles are often gleaned from morphological attributes. In addition, dates can be ascertained when pipes bear the presence of makers' marks, which once identified provide a date range equivalent to the work-life of its manufacturer. It is also possible to conduct analyses of stem bore diameter as a methodological dating tool, but, as discussed below, the method, as it is currently conceived, can be problematic.

8.3.1 Stylistic Development

Although the general form of the clay tobacco pipe stayed pretty much the same over the course of time, some significant morphological changes did occur which make it possible to create chronologies based upon bowl size and style and changes in stem length. While some of these modifications can be ascribed to changing fashion, others had functional purposes based upon local economic trends. For instance, bowl capacity was often influenced by tobacco cost and availability (Ayto 1994:4). As tobacco prices increased, bowl size decreased, and visa versa.

Pipe dating then, like most artifact dating, relies heavily upon typology. Style in clay pipes varies chronologically and regionally, and so different loci of pipe manufacture (i.e.: England, the Netherlands, North America) each require the development of their own chronology. Generally however, these changes can be broadly described (see Figure 8.1 for a generalized typology). Early forms had short stems with small, tight, constricted bowls which angled dramatically away from the smoker. The earliest known description of an English pipe type is from 1573, and it describes the pipe was being "an instrument formed like a litle ladell" (Harrison 1573 in Oswald 1975:3). By 1580, the bowl had been adapted to provide a better container for the tobacco: the bowl took on the characteristic barrel shape and adopted a forward incline. The base of the bowl flattened and the stem angled to lay flat on a table (Ayto 1994:4). These early bowls were very small, and often referred to as "fairy pipes".

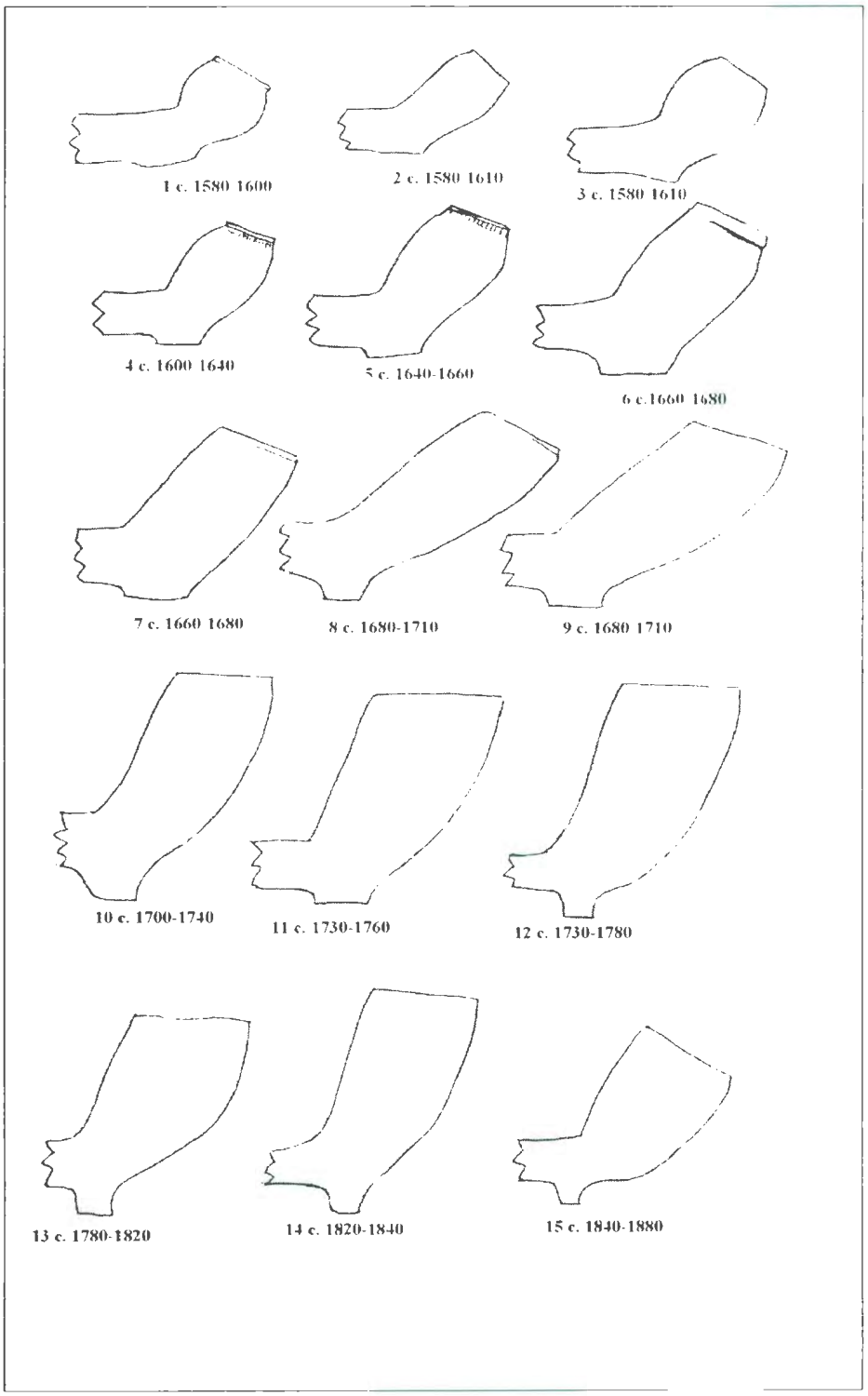


Figure 8.1: Simplified generalized typology (modified from Oswald 1975: 39)

After 1640, pipe bowls began to increase in size, and the stem to increase in length. Bowls became elongated as the century progressed, and began to tilt back towards the smoker, rather than away from. A rounded spur replaced a flat heel. Early eighteenth-century pipes were increasingly larger and developed a flat bottom spur, now referred to as a pedestal. The top of the bowl by this point tended to run parallel with the stem.

8.3.2 Makers' Marks

The stamp applied to pipes by their makers is the most precise means of dating clay tobacco pipes (Mills 2000:20; Bradley 2000:116). Makers' marks can be found on the sides, base, or back of the bowl, on the heel, along the side of the heel or on the stem of the pipe. Makers' marks began appearing on pipes at the start of the seventeenth century. Marks are generally initials, but also can be representative symbols associated with a particular maker. They can be either incised or in relief. While there can be some inconvenience caused by occasions where different makers shared the same initials, marks are generally distinguishable from one another and consultation of one of many extensive sources of lists of makers' marks usually yields a fertile result (see Gaulton 1999; Oswald 1970, 1975; Walker 1977). Early in the seventeenth century, marks tended to be stamped upon the base of the bowl; by the second half of the century, marks also began to be stamped on the backs of bowls and on stems. From the end of the seventeenth century to the middle of the eighteenth, it became more common for them to be placed on the sides of bowls in the form of a moulded cartouche or as initials impressed on to the sides of heels (Bradley 2000:116; Gaulton 1999:27). Understanding

this general chronology provides a good staring point for identifying the maker of the pipe by establishing a relative date range. Tracing a makers' mark provides information not only about the origin of the pipe, but also important dating information. Makers' marks provide a date range equivalent to the working life of the manufacturer (usually about 20-30 years).

Similarly to dating by markers' marks, it is possible to discern dates by classifying a pipe's decoration, which can sometimes isolate a time period, or even a given region or kiln. Again, like makers' marks, such decorative elements are identified through a comparative search through documents which have recorded known and dated samples. Besides a rouletted or plain ring at the top of some bowls (refer to early examples in Figure 8.1) decorative elements were rare in the early seventeenth century (Bradley 2000:111). With the start of the eighteenth century however, it does become common on stems and also on bowls in the latter half of the century. Common decorative elements in the late seventeenth and early eighteenth century include crosses, the fleurs-de-lis, diamond patterns enclosing initials, scroll patterns, geometric designs, armorial patterns and Masonic emblems (Noël Hume 1969a:305-307).

8.3.3 Pipe Bore Analysis

Pipe stem bore measurements is a methodological tool that is based upon the premise that the diameter of the bore in a pipe stem decreases through time at a steady rate (Harrington 1978:63). To conduct the analysis, measurements are taken using a set of

drill bits in 64th of an inch gradations: usually the measurements span 5/64 to 9/64, each of which is associated with a date range refined by Harrington in a study of 330 dated specimens (1978:64). Binford further developed Harrington's basic method by translating Harrington's percentages into mean hole diameters for each given period: from this, he was able to calculate a straight line regression formula which would compute a mean date in years for the sample (Binford 1978:66).

While bore measurements were once considered a highly accurate statistical means of deriving dates, archaeologists today, myself included, have reservations about the technique in its current form and tend to agree that it is a tool that needs to be used judiciously. It is a limited methodology: the Harrington/Binford formula after all computes only a mean date for occupation, which means that trying to define an entire period of occupation by this means alone is impossible (Walker 1977:9). Moreover, Noël Hume has demonstrated that in order to arrive at consistent dates, it is necessary to a have a minimum sample of almost 1000 fragments (1969a: 300-301). He further notes that the range of acceptable accuracy for this type of analysis is restricted to the period of 1680-1760 making the analysis inapplicable to some studies (Noël Hume 1969a: 300). While this site does fit into this period, even though this method has often provided tolerably accurate results in various North American studies, many archaeologists studying English pipes have found the application of the method problematic (Crossley 1990:275; Walker 1977:10). The dates they achieve are often too early. There is some sort of skewing force at work, and since the vast majority of pipes found in

Newfoundland come from West Country England, the same complications seem to exist here (Crompton 2001:202). Although such analysis has traditionally been conducted upon the Ferryland assemblages, in recent years it has been accepted that this skewing force can affect analyses at Ferryland (Crompton 2001; Gaulton pers. comm.). It is thus my opinion that until we have a better understanding of why this skewed data is occurring, the technique is in this instance too problematic to be conducted on the assemblage.

8.4 Analysis of the Pipe Assemblage

The sequence of events associated with the structure at Area F yielded a total of 824 pipe fragments. Of these, there were eighteen complete or nearly complete bowls and identifiable as types according to Oswald (1975) and Walker (1977). We excavated 158 bowl fragments, and 729 stem fragments. The following sections break these totals down by event. Figure 8.2 at the end of Chapter 8 illustrates a selection of bowl forms excavated from Structure 15.

Event 643: Later-dating Wooden Floor

Event 643 yielded 88 bowl fragments, 2 mouthpieces and 396 stem fragments. In addition, eight bowls were excavated which were at least complete enough to be assigned dates based on chronological comparison with Oswald's chronology (1975). Two of these bowls dated to the period from 1680-1710; six to c.1700-40. The pipes all appear to be of West Country (likely from Barnstaple) and possibly Bristol origin. London is

another possible locus of origin for the pipes attributed to Bristol. London and Bristol pipe forms of the late seventeenth and early eighteenth century mimic each other quite closely, and so without an identifying mark it is difficult to say from which of these two centers the pipes originate (Oswald 1975:53). Both centers were major manufacturing areas.

The event 643 collection provided six makers' marks; two on heels, one on the back of a bowl, two on bowl fragments, and one on a stem fragment. In addition, two decorated (incised) stem fragments were found (see Figure 8.3 at the end Chapter 8 for illustrated makers' marks). One heel mark is unidentifiable. What remains on this heel is an R on one side of the fragment; the other side has been destroyed. The fact that the mark is placed on the sides of the heel indicates that the pipe was produced in the later seventeenth or early eighteenth century (Gaulton 1999:27). The second heel mark is impressed upon a unique heart-shaped heel. The mark is difficult to read, but may be LU/W. The mark is as of yet unidentified because of its lack of clarity, but a similar heel bearing a different mark has been identified previously in the Ferryland collection. This comparative mark is from a c.1680-1720 pipe from Poole (see Gaulton 1999:43). The third maker's mark, an incuse mark on the back of a bowl, reads CH. Incuse initials on the backs of bowls dating to beyond 1670 are generally from Bristol, occurring occasionally on London pipes (Oswald 1975:66). This particular pipe is from Bristol. Its maker was Charles Hickes (1721-1740) (Walker 1977:1442-43). The bowl fragment mark on the fifth pipe from Event 643 reads I/JEN/IN[?] The pipe is attributed to James

Jenkins (1707-39) or John Jenkins (1739) (Gaulton 1999:48). Typologically it is more likely to belong to James Jenkins (refer to Walker 1977:1452-53). It too is of Bristol origin. One other bowl mark is difficult to identify: it is an unknown partial mark that features a C? surrounded by two concentric circles of dots. The final mark, RVB/SID/NEY is located on the stem of a pipe. The mark is that of Reuban Sydney (1687-1748), a Southampton pipe maker (Gaulton 1999:44; Oswald 1975:173; Walker 1977:81).

Event 645: Later-dating Wooden Floor

Two complete/nearly complete bowls were excavated in Event 645, both falling into Oswald's 1700-1740 range. Both pipes are of West Country origin. We also uncovered 17 bowl fragments and 86 stem fragments. One stem is decorated (incised). One stem and one heel provided makers' marks (refer to Figure 8.3). The stem fragment had a stamped circular incuse mark with the initials RVB/SID/NEY. The mark is the same as that identified in the Event 643 collection and belongs to Reuban Sydney, a Southampton pipemaker whose pipes were in production from 1687-1748 (Gaulton 1999:44; Oswald 1975:173; Walker 1977:81). The incuse heel mark on the second pipe bears the mark BA/RVM. This pipe was manufactured in Barnstaple, Devon, and has a production range of 1660-1740 (Gaulton 1999:40).

Event 659 Earlier-dating Gravel Floor

Event 659 yielded two complete or nearly complete bowls with dates of 1700-1740. Both appear to be of West Country origin. Of the 42 bowl fragments, one heel had a makers' mark which reads BA/RVM. It is the mark of a Barnstaple manufacturer (the same mark was found on the heel of a pipe from Event 645) and dates from 1660-1740 (see Figure 8.3). We also excavated 176 extraneous stem fragments from this event.

Event 662 Lower Hearth

Event 662 produced six stem fragments and six bowl fragments, none of which were identifiable. Because the hearth is stratigraphically associated with the lower floor, it can be ascribed the same date range, even without the direct evidence the pipes provide the other events.

Event 663 Event immediately beneath the top layer of the gravel floor

Six nearly complete bowls were excavated from Event 663, but some are factored out of the analysis due to the fact that Event 663 is the strata of the gravel floor itself. As such it includes both material ground into the floor from above and, occasionally, material from the fill layer below which has migrated into the floor. In Event 663, one bowl dating from 1700-1740 was excavated. One seventeenth-century heart-shaped heel came out of this context. The rest of the pipes yielded dates that predated the artifacts found atop the floor in Event 659 and are likely part of the destruction layer upon which the floor was laid. Further, two interesting pipe stem fragments were excavated (see Figure

8.4 at the end of this chapter). The first is a brown slipped mouth piece, decoratively coated to stop the smokers' lips from sticking to the pipe. The second is a modified pipestem: a hole has been drilled into it, perhaps to form a flute out of a recycled stem. The fragment is too small to substantiate this interpretation, but such a practice was not uncommon. Because of the ambiguous nature of this event, it is difficult to say whether or not the fragments are from the occupation of the house or if they, like the pipes presenting early dates, have migrated from the fill beneath.

All of the pipes found in the assemblage were made of the white ball clay used by pipemakers throughout Southwest England in centers such as London, Devonshire, Bristol, Bideford and Barnstaple. The majority of pipes in this collection came either from the West Country centers or from Bristol. It is possible, as previously mentioned, that a few of the pipes which have been attributed an origin in Bristol without the presence of a makers' mark may actually be of London origin due to the similarities in form between the two regions during the late seventeenth and early eighteenth centuries. The origins of these pipes is not surprising given known trade routes and the fact that so much of the ceramic assemblage comes from the same centers.

The assemblage provides a broad occupation range for the site of between 1660 and 1748. The presence of the pipe bearing the CH mark (1721-1739) provides further evidence that the house was occupied until at least 1721, although not likely much later

than this due to the conspicuous absence of traditional English White Salt-Glazed stoneware.

8.5 Conclusion

This chapter detailed the history of the clay tobacco pipe. It discussed the development of the European tobacco pipe industry and the production processes involved in that industry. The methodology used in this particular analysis was explained and justified. I then described the dates and regional origins of each pipe, organizing them according to the context from which each pipe was excavated. All pipes are of West Country or Bristol/London origin. The pipes provide a date range for the site of c.1660-1748. The presence of the mark of pipe maker Charles Hickes on one of the pipes indicates that the site was occupied at least until 1721, providing further evidence regarding the end bracketing date offered by the other artifacts in the assemblage.

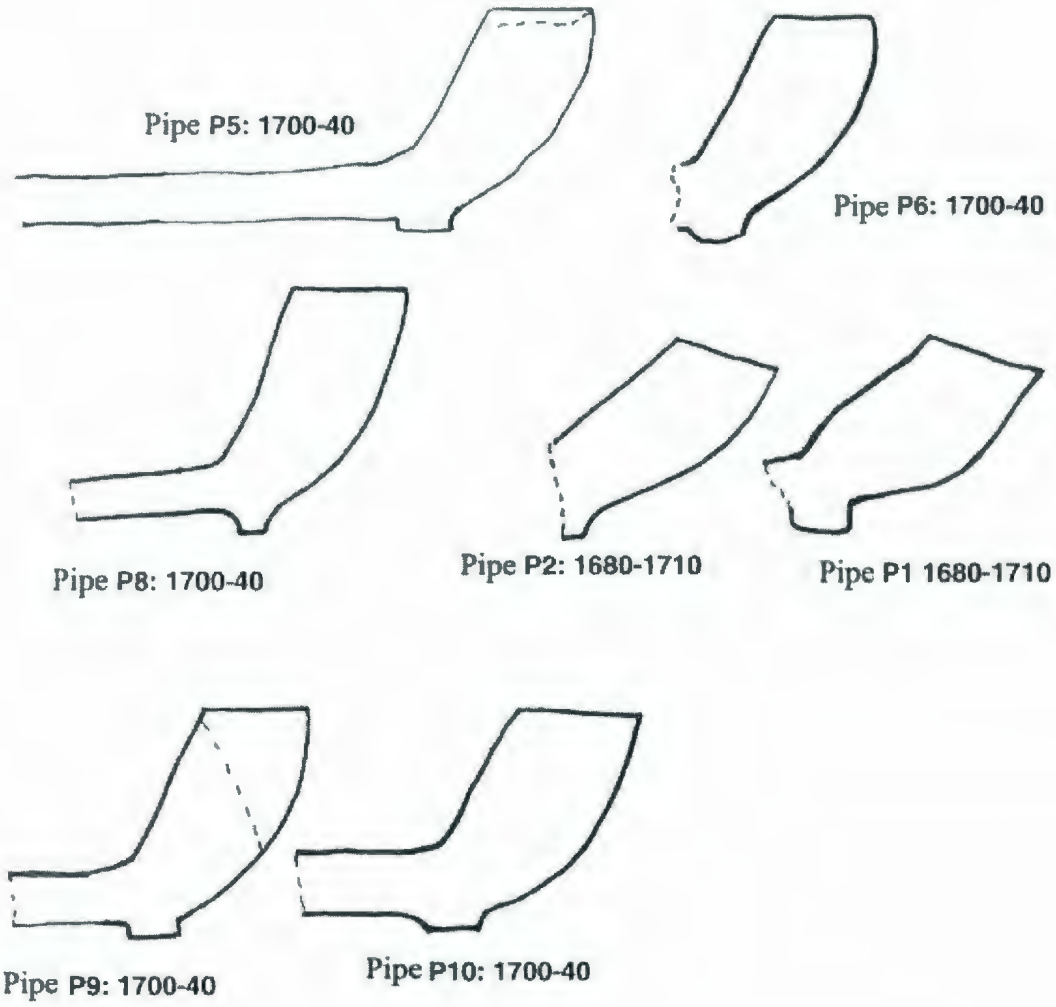


Figure 8.2: Selection of pipe bowls from Structure 15

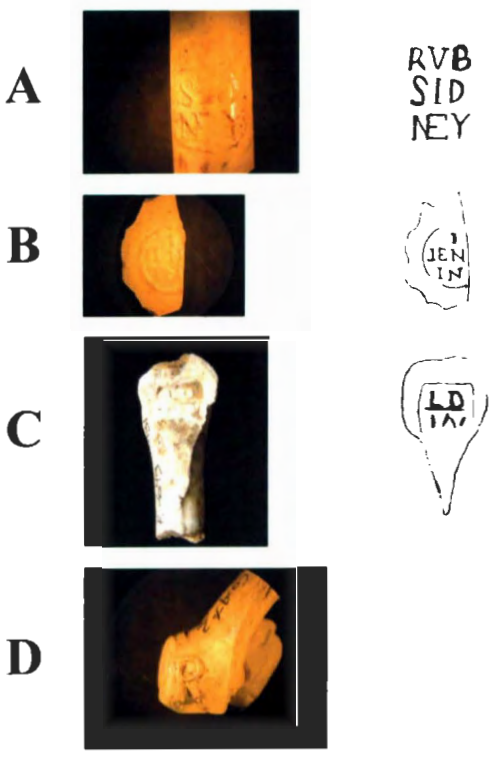


Figure 8.3: Clay tobacco pipe makers' marks:
a) Reuben Sydney (1687-1748), Southhampton. Found in Events 643 and 645 (Vessel P19)
b) James/John Jenkins (1707-1739), Bristol. Found in Event 643 (Vessel P24)
c) LD/W (1680-1720), Poole (see Gaulton 1999:43). Found in Event 643
d) R (opposite side of heel missing). Found in Event 643

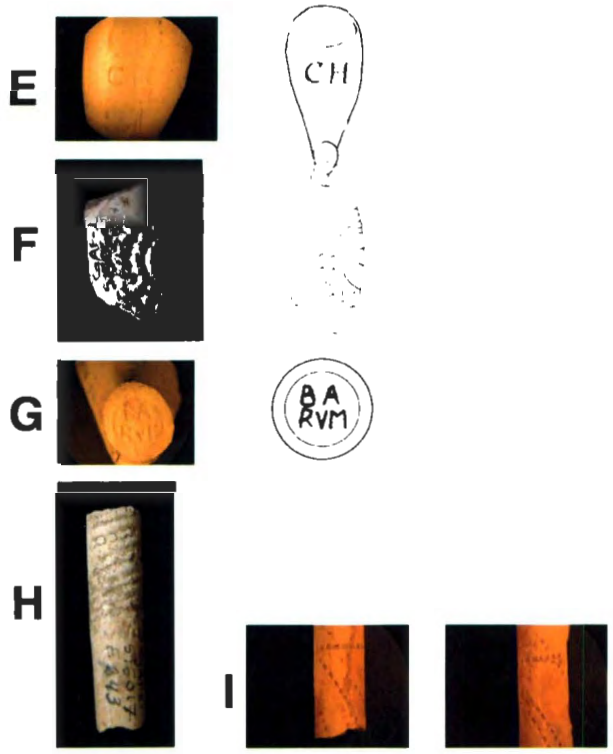


Figure 8.3 (cont):

e) Charles Hicks (1721-1740), Bristol. From Event 643. (Vessel P21)
f) Unidentified. From Event 643. (Vessel P25)
g) Barnstaple (1660-1740), Devon. Found in Events 645 and 659. (Vessel P28)
h) Unidentified pipe stem decoration. Found in Event 643. (Vessel P20)
i) Unidentified pipe stem decoration. Found in Event 645. (Vessel P27)

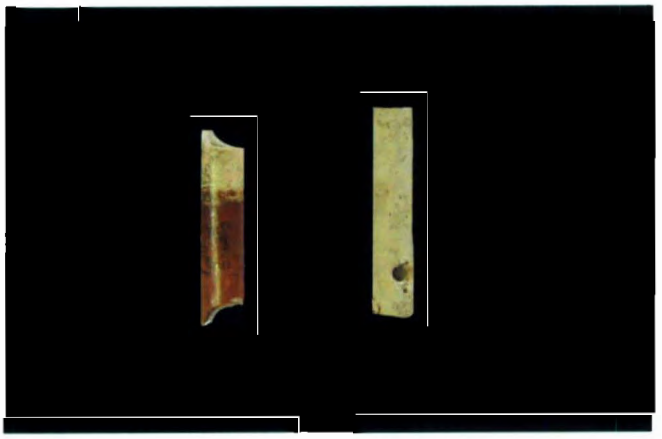


Figure 8.4: Modified pipe stems from event 663 (Vessels P30 and P31)

Chapter 9: The Small Finds

9.1 Introduction

This section examines all the extraneous "small things forgotten" that have been left out of the preceding chapters. The artifacts have been divided into groups according to their function and discussed in detail, as far as their state of preservation allows.

Many of the artifacts are metal and so are subject to the effects of corrosion. Differences in aeration, pH or the saline content of a soil matrix are determining parameters for corrosion and deterioration of archaeological metal (Mathias 1999: 15). Because of Ferryland's proximity to the Atlantic ocean, and because of the high rate of annual precipitation in the area, it can be assumed that the soil at the site has a high water to artifact ratio (Mathias 1999: 26). This generally wet environment tends to increase artifact preservation. Furthermore, Area F is far enough removed from the water's edge that it is free of salt water contamination, although it is high in chloride levels, which does result in artifact deterioration (McDonald 2003: 29). The decrease of salt levels helps to somewhat counteract the effects of the chlorides and improves the overall state of the metals as compared to soils closer to the water's edge. For the most part, the metal artifacts from Area F are well preserved, owing to generally favorable soil conditions at the site. In some instances, iron artifacts were corroded to such a level that they remained unidentifiable after initial treatment; such artifacts have been omitted from discussion. Less refined metals, such as lead shot and a lead jigger, are less affected by corrosion and so have survived well. Organic materials, which were found in the form of

textiles, also survived remarkably well in the burial environment at Area F, owing to the high level of water in the soil at this part of the site.

9.2. Household and Food-Related Artifacts

Several non-ceramic and non-glass household-related artifacts were excavated from the site. Those related to the preparation and consumption of food during the initial occupation of the house include an iron kettle, a fragment of a copper kettle, and two copper spoons. Kettles were very common containers for boiling foods and liquids during the early modern period, and both copper alloy and iron are quite commonly found both in archaeological contexts and victualling lists from this period (Pope 1986:217-221; Weatherill 1988:147-148). Kettles were both affordable and durable, and were an important fixture in the colonial kitchen, since boiling was one of the most common cookery techniques of the period (Mennel 1985:48).

The two copper spoons excavated are all that remains of the occupants' metal tableware. While the individual styles of spoons can vary greatly, the specimens excavated from this site were not well enough preserved to ascertain their styles (see Moore 1987). Indeed, one specimen yielded only the bowl of the spoon, eliminating the often identifiable features of the stems and their ends (Noël Hume 1969a:181). Spoons of the late seventeenth and early eighteenth centuries typically had broad oval-shaped bowls, flat shafts and notched or 'trifid' ends. Sometimes the join between the stem and the bowl was reinforced with a spinal rib, referred to as a "rat tail" (Noël Hume 1969a:183).

During this period, pewter was becoming an increasingly common material for cutlery and tableware and the popularity of silver and copper alloy spoons began to lose ground to the more popular pewter variety at the start of the eighteenth century (Noël Hume 1969a:183). Pewter utensils are very common in households of the early modern period in England, throughout colonial America, and in Newfoundland (see Anderson 1971; Martin 1989; Mills 2000). Their absence in this archaeological assemblage is likely not an indication of their absence in the household. It is more likely that they were either recycled or have simply not survived the burial environment.

From the later wooden-floored level of occupation, a copper container, a curved iron knifeblade, and an axe blade were excavated. The copper container was the only non-ceramic food-storage artifact found. It was noted in Chapter 6 that while ceramic food and beverage containers are the most common material culture for the foodways of the lower classes, the wealthy have access to a wider range of ware types. Pewter, silver, copper alloy, wood and leather vessels were common substitutes for food and drink preparation and service vessels (Beaudry et al 1988). The presence of this copper container amidst the assemblage of ceramic storage and preparation vessels demonstrates a wider variety of material culture within the household, and indicates that the inhabitants were not forced to rely only upon the most economical types of housewares.

The curved knifeblade excavated from this same level of occupation is typical of knives made after 1670. Before this date, knife blades were narrow, straight and long. At the

end of the seventeenth century, it became fashionable for the cutting edge of the blade to become convex, or curved (Noël Hume 1969a). Knife handles themselves, which can be either wooden or bone (and occasionally stone with crystal sections among the very wealthy), rarely survive the burial environment, and so the presence of only the blade here is not surprising. The knife is rather badly corroded, and offers little more identifiable information. Indeed, its form is identifiable only by x-ray. Since both spoons and cutlery were found in the assemblage related to this dwelling, the absence of any mention of forks might be noted. Yet although forks (an Italian invention) do appear in England in the mid seventeenth century, they do not even begin to appear in the Americas until the early eighteenth century. Until this point, knives were outfitted with a pointed end, as exhibited by the specimen in this assemblage, to pierce food and convey it to the mouth (Deetz 1996:168-9).

In addition to the copper alloy kettle and knifeblade, the wooden-floor occupation also yielded a pair of iron scissors. Scissors from the turn of the eighteenth century feature narrow blades anchored together by a rivet well below the branch of the handles. The handles themselves are looped and attached. Scissors dating to this period are distinguishable from their earlier counterparts by their handles: early seventeenth-century specimens have handles with unattached tails. They are also easily discernable from their slightly later counterparts. During the later first half of the eighteenth century, blades become very broad, and their ends, rather than tapering to a point, are cut off at an oblique angle (Noël Hume 1969a:267-69). The scissors excavated from this house

clearly date to the late seventeenth / eighteenth century, and fit in well with the dates afforded by the other artifacts in this assemblage. The axe blade found upon the wooden floor is evidence of day to day domestic activities of the household, which certainly included the gathering and processing of wood for cooking and for building materials.

9.3 Currency

One copper halfpenny was excavated from event 663 (the earlier gravel-floored occupation of the structure). After 1613, the rather expensive silver minor coinage of England came to be replaced first by tin-plated copper and later by entirely copper coins. Because coins spent so many years in circulation, coins found on colonial sites are often badly worn, and this coin is of no exception. At time of excavation, it was also heavily encrusted with chlorides. As a result, even after careful cleaning, neither the date nor the reign during which it was produced was identifiable. Nonetheless, it is possible to make some inferences about the minting of the coin. Since it appears that the gravel-floored occupation in which the coin was found was destroyed during the first decade of the eighteenth century, the halfpenny was likely minted prior to 1702, since no copper coins at all were minted during the reign of Queen Anne (1702-1714) until the time of her death. The coin is likely then from the reign of William III (1694-1702) or perhaps at the earliest the end of the joint reign of William III and Mary II (1688-94) when copper coins (vs. tin-plated copper coins) began to be produced in earnest (Noël Hume 1969a:160).

9.4 Artifacts of Personal Adornment

This section includes analysis of two classes of material, grouped together under the above heading as artifacts used in the creation of and wearing of costume. Thus, it includes a discussion both of metal objects (including four buttons, two buckles, and two straight pins) and of organic textiles which made up the fabric of costumes themselves.

As previously noted, metal objects in archaeological contexts are very susceptible to a wide variety of corrosive elements in the burial environment, and the metal artifacts associated with personal adornment excavated at this site are no different. The artifacts are made of copper (excepting one button which exhibited silver inlay, and one alloyed/tin-plated pin). Like other metal associated with Structure 15, they are well preserved owing to the decreased salt levels in the soils at the site and the high water levels. As expected, the copper artifacts are discoloured by sulphides (lending them a blackish appearance) and partially encrusted in green chlorides. The button featuring the silver inlay is also well preserved, though partially affected by copper and silver chlorides. Four buttons in total were excavated at Structure 15. The three copper buttons were associated with the later wooden floor (events 643 and 645). The copper button with the silver inlay was found in association with the earlier occupation level (event 663). Each of the buttons is circular, and are hollow-cast with an eye soldered onto the back as is typical of the early eighteenth century (Noël Hume 1969a:89). In addition, two copper buckles were found in event 643 (the later wooden floor). Besides the button exhibiting the silver inlay, none of these artifacts is particularly expensive or luxurious,

which suggests once again a likely economic positioning within the middling class. Their presence in this assemblage serves to demonstrate a concern with personal appearance by the occupants of the structure. Copper buckles were common among the middling classes, those of silver being confined to the gentry, and those of pewter or iron being relegated to the lower classes (Noël Hume 1969a:86).

Textiles, as organic materials, are rare finds on archaeological sites because of their susceptibility to a wide variety of deteriorative elements in the burial environment including oxygen, excessive temperatures, heat, bacteria, mold and other microorganisms which, alone or together, cause considerable loss of tensile strength and pliability and eventually disintegration. Plant fibers (like cotton) are comprised mostly of cellulose and are highly susceptible to decay. Textiles made from animal, such as leather, wool or silk, are primarily composed of protein and are somewhat less vulnerable to such factors. Several pieces of textile survived in association with this structure, likely owing to the high level of water in the soil at the site. These artifacts include one remnant of wool, a piece of rope, a scrap of leather and one finely woven composite of silk and silver thread. The last of these is a highly decorated textile found in event 660. Event 660 is a co-mingled event located stratigrapically below the gravel floor of the structure (event 659) but also demonstrating mends with artifacts from that event. The textile, which has been tentatively identified as a decorative purse, likely dates to the seventeenth century and is probably associated with that component of the site rather than with Structure 15 itself (Mathias, pers. comm.). The purse itself is lined in silk, and the original canvas (none of

which survives) would have been heavily embroidered in silk and silver threads in a floral vine and leaf motif (see Figure 9.1).

9.5 Fishery-Related Artifacts

So much of the Ferryland economy relied upon the fishery, that to find fishery-related artifacts amidst the general assemblage of the household is not at all surprising. The artifacts excavated at this site include iron fish hooks, a lead jigger, and a boat pintle. All were found in association with the wooden-floor occupation of the house.

Fish hooks, lead weights and lead jiggers are extremely common fishery related artifacts on Southern Shore sites (see Crompton 2000; Mills 2000; Nixon 1999; Pope 2004). Jiggers were used throughout the Southern Shore to catch squid. They are cast from lead and have small iron hooks set into the bottom end. Multiple jiggers would be attached to a single line, which were then pulled through one of the many schools of squid which arrived in Newfoundland waters in large numbers during the late-spring and early-summer months (Mills, pers. comm.). Squid was commonly used to bait cod, and was likely used to bait the fishhooks found in this assemblage. For catching cod, fishermen baited a pair of the eyeless wrought iron hooks on a line weighted by lead weights and lowered them over the side of the boat to the bottom where the cod lie waiting (Pope 2004:25). The fishhooks excavated are generally quite big, as would be required for catching large fish like cod (Faulkner and Faulkner 1987:226). While no lead weights were found, they were certainly being used by the Ferryland fishermen both to weigh

Figure 9.1: Appliquéd purse decoration (floral vine and leaf motif embroidered in silk and silver threads).

down lines and to weigh down nets. The final fishery-related artifact found in association with this structure was the remnants of a boat pintle. A pintle is a piece of hardware which connects a rudder to a boat, assisting with navigation through the fishing waters.

9.6 Hardware

A number of pieces of hardware were recovered from Structure 15. These include an expected large number of nails, spikes, and staples associated with the construction of the house. Three fragments of strap hinges were also excavated (two from the early occupation, one from the later), as well as multiple pieces of lead cames from the window glass. The lead cames were melted from fires likely associated with the raids. Such artifacts provide evidence that the doors and windows of the house were well-fitted with hardware.

In addition to these pieces of architectural hardware, two locks were uncovered during excavations. The first is a door stock lock. Stock locks were the most common and the cheapest of street-door locks made during the colonial period (Noël Hume 1969a: 244). They are iron locks that were set into a block of wood, which was then fastened to the face of a door. The mechanism was hidden between the surface of the door and its wooden housing. This type of lock was thus attractive beyond economical reasons; because of its wood encasement, stock locks were well suited to damp environments, such as seaside locations, which could potentially harm an all-iron lock. Because each part of a stock lock was separately encased within prepared mortises inside the housing,

no iron part was attached to any other iron part. For this reason, plain stock locks are often excavated as a groups of separate pieces, long disassociated from one another following the disintegration of their wooden encasement (Priess 2000:10). That only one piece of the lock has survived the burial environment is thus not surprising. In addition to the stock lock, one iron padlock was excavated from event 643. A padlock is a portable lock which consists of a mechanism encased in a housing (often made from two pieces of sheet metal, joined to a strip with rivets), and a shackle (a curved u-shaped piece) that gets passed through a loop and is secured within the housing. The mechanism is attached to the back plate and the key hole is situated in the front plate (Priess 2000:79-80). Padlocks are most often characterized by the shape of their housing. Common types of the seventeenth and eighteenth centuries include heart-shaped and half-heart shaped (defined based on lock shape when viewed from the side), and as oval-shaped locks. The padlock excavated from Structure 15 is of the oval-shaped variety. It would have been used to secure either the house or its contents and represents an increasingly growing ethos of privacy in the early eighteenth century, as well as a need for safeguarding valuables.

9.7 Ammunition

While no armaments were excavated, varying sorts of ammunition were found in association with Structure 15. A variety of lead shot was excavated, from all levels of occupation. Several gun balls of varying sizes were also found in association with the structure. Multiple pieces of lead sprue provide evidence that shot was being

manufactured onsite, a common enough practice in the colonial world, for both defense during uncertain times and for the sake of everyday hunting. In the process of manufacturing gun balls, molten lead was poured into iron moulds which were contrived to produce either larger single gun balls (these moulds were shaped rather like a pair of scissors) or multiple slightly smaller gun balls which were linked together by the mould's casting channels (referred to as "nutcracker moulds") (Noël Hume 1969a:221). Sprue refers to the hardened lead waste which results from the casing process. It refers to either that waste which would be trimmed off of single balls or those linking strips which existed between balls made in nutcracker-type moulds (Noël Hume 1969a:222). Smaller lead shot was also excavated, which was used in high quantities in a single shot so that when the gun was fired, the shot would spread and scatter. This type of shot was commonly manufactured by pouring molten lead through a sieve and thence into a dish of cooling water (referred to as the 'Rupert' process) (Faulkner and Faulkner 1987:155, cf. Mills 2000). Ammunition would be used for both defensive and for hunting purposes. Both small and large game, including geese, ducks, partridge, pigeons, lynx, arctic hare, bear and caribou have all been recorded as parts of the Newfoundland planter's diet (Mills 2000:119; Pope 1992:82). It is found in all events associated with the history of Structure 15.

The highest concentration of artillery was found embedded in the cobblestone courtyard which predates the construction of the house. This is fitting with the history of the structure; by far the raid that took place in 1696 was the most fierce attack and would

have resulted in the highest accumulation of war-related ammunition. The seventeenth-century courtyard was highly affected by artillery fire (refer to Figure 5.1). Embedded within the cobblestones were not only gun balls and lead shot as discussed above but also a cannonball and one large barshot. Barshot too was fired by cannon, but rather than a single ball it consisted of two smaller balls linked by an iron bar. After leaving the muzzle of the cannon, the shot would tumble through the air and cause a great deal of destruction. Because of the nature of its flight, the trajectory of barshot was less stable than regular cannon balls and so needed to be fired at closer range than other heavy artillery. The circular depression created in the courtyard by the barshot is evidence of how destructive a weapon it could be (refer to Figure 5.2). There is significantly less evidence of artillery fire in later levels, although a cannon ball was found in association with Structure 15, evidence of ongoing raids at the site in the early eighteenth century.

9.8 Conclusion

This chapter has examined all of the so-called "small finds" of this artifact assemblage: that is, all of the remaining artifacts which do not fit into the broader categorical classes of ceramics, glasswares and clay tobacco pipes analyzed in the previous three chapters. Chapter 9 has in turn examined the remaining non-ceramic household and food-related artifacts, currency, artifacts of personal adornment, fishery-related artifacts, and any hardware or ammunition associated with Structure 15. In this chapter I have detailed each of these artifacts, discussing both their states of preservation as well as the

information that can be gleaned from their presence in the assemblage regarding the lives of the inhabitants of this dwelling.

Chapter 10: Conclusion

10.1 Introduction

The purpose of this thesis has been to analyze, through the archaeological analysis of one post-1696 structure, the English colonial experience at Ferryland during the transitional resettlement period that followed the French raid of 1696 and the subsequent temporary abandonment of the settlement at the end of the seventeenth century. Excavations to date at the settlement have focused primarily upon a number of early to mid-seventeenth-century structures, constructed and occupied between the colony's settlement in 1621 and the raid of 1696. Information about the early eighteenth-century resettlement component of the site has to date been comparably rare. This thesis has been an attempt to analyze one early eighteenth-century structure which, when first exposed at the end of the 2004 season, suggested early resettlement status in the way in which it utilized two pre-existing, partially demolished stone walls from surrounding pre-raid seventeenth-century structures in its construction. The overall objective of the thesis has been to expand on the understanding of the development of the colony into the eighteenth century and to attempt to understand the ways that the raid and the events that followed the raid changed the social and economic context of life at Ferryland. To this end, a number of research questions were outlined at the start of this thesis. Their answers, as derived from the analysis detailed in the preceding chapters, are presented below.

10.2 Research Questions

1) When was the structure occupied?

Prior to intensive excavation, a Bristol Staffordshire mug dating to the reign of Queen Anne (1702-1714) was found in association with the structure. This, combined with the reuse of the two predating partially demolished walls, led me to conclude that the structure was closely associated with the 1696 raid on Ferryland. Indeed these estimates about the date of the structure as an early eighteenth-century building were confirmed through excavation and analysis. Dates regarding the range of the overall occupational history of Structure 15 were elucidated primarily from deductive reasoning based on the construction and destruction sequences associated with the structure as outlined in Chapter 5, combined with an analysis of the associated artifact assemblage. Evidence based on the degree and nature of artillery fire associated with the courtyard upon which Structure 15 was constructed is highly suggestive that the event was directly associated with the raid of 1696. Artifacts substantiate this interpretation. That the gravel which comprised the floor of the early occupation of the building was laid directly atop the rubble from this destruction level strongly suggests that the house was built shortly upon the return of the Ferrylanders to the site in 1697.

Regarding the end bracketing date for the history of Structure 15, dates derived from an analysis of the ceramic, glass and clay tobacco pipe assemblages all substantiate a date range of the early eighteenth century which ends c.1721 (see Chapters 6-8). In particular, the presence of a Queen Anne mug, white Borderware and dipped English white salt-

glazed stoneware, as well as significant proportions of North Devon wares helped to define the structure to this time period. The presence of the dipped English white salt-glazed stoneware and the correlating absence of traditional English White stoneware was particularly useful in closely refining the end bracketing date. Traditional English White salt-glazed stoneware dates to no earlier than 1720, at which point it gained rapid popularity and almost immediately began appearing in large quantities on colonial sites. Its absence at Structure 15 provides a *terminus ante quem* of c.1720. In addition, the presence of its earlier dipped variety, which only became widely available in the colonies after 1715, further refines the end date of the occupation to between c.1715 and 1720. The morphological characteristics of associated wine bottles and wine glasses (c.1682-1721), which are discussed in detail in Chapter 7, all substantiate the time range of c.1697-1720s, as do the morphological characteristics and makers' marks associated with the clay tobacco pipe collection detailed in Chapter 8 (c.1660-1748).

Analysis of the archaeological record has proven that there were two distinct successive occupations of Structure 15. The initial gravel-floored occupation appears to have been destroyed during a second raid, resulting in a reconstruction of the house and the laying down of a new wooden floor atop the old. While it is difficult to surmise the specific date at which this intermediary destruction event took place at Structure 15, it is possible to make inferences. As discussed in Chapter 2, two more attacks were launched on the Avalon in 1705 and in 1708, either of which, based on the archaeological record, could possibly have been related to the destruction of the early occupation of Structure 15.

2) What are the structural characteristics and function of the structure?

The structural characteristics of Structure 15 are outlined in detail in Chapter 5, and can be summarized as follows. The foundation of the structure was built of local unworked stone which was laid in individual courses. In a time sequence, the southern and eastern walls predate the construction of Structure 15, belonging originally to the foundations of other neighboring seventeenth century buildings. The wall of the stone building to the south was constructed using a lime mortar, while the eastern building was bonded simply with fine sifted clay. Both of these foundation walls were seated in builder's trenches, unlike those of the western and northern borders of Structure 15 which were laid atop a fill layer over the cobblestones. Post 1696, the northern and western foundation walls were constructed and its builders incorporated the earlier seventeenth-century foundations into the creation of Structure 15. The foundation's dimensions measured 3.5m x 7.3m.

The structure was a timber-framed building, whereby wood-framed walls were erected atop the stone foundation and most likely covered in clapboard, the most economical means of infilling in Newfoundland at the time. The size of and construction materials associated with the house suggest perhaps that the inhabitants of the dwelling were more concerned in investing in material goods than in architecture, a choice which is likely related to growing concerns about the presentation of social identity through material culture in the eighteenth century. An absence of roofing slates and a scarcity of thatching supplies combined with an abundance of nails suggests that the structure was likely

roofed in wooden boards or shingles. Based on the location of door hardware artifacts and historical analogy, it is believed that the door into the building was likely situated along the western longitudinal side of the structure, though lacking additional evidence it is impossible to further refine its location. Similarly, it was possible to deduce from excavations the existence of windows during each occupation based on the excavation of window glass and lead caming from both levels of the dwelling. Yet beyond the logic that dictates their location on the western and northern sides of the building, their exact position is impossible to pinpoint. A fireplace is situated at the southern end of the structure.

The function of the structure was as a predominantly domestic space, possibly occasionally functioning as a tippling house through minor alcohol sales during its second occupation (c. 1705/08-1720s). All associated artifacts are of the types generally associated with a household and the activities that commonly take place therein, and the assemblage is quite comparable in that sense to other domestic spaces in Ferryland and elsewhere in the colonial world.

The early occupation of the house (c.1697-1705/08) features a charred gravel floor directly atop the destruction layer of the seventeenth-century courtyard that predates its construction. This structure had a small hearth at its southern end measuring 1.3m wide x 1.2m deep and two associated postholes properly situated to support a fireplace hood. The hearth was constructed of local flat-faced stone set into earthen fill. Little

architectural remnants remain to prove finite information regarding floor plans. Based on the heterogeneous nature of the artifact distribution, this early occupation likely exhibited a one-celled floor plan in which a single room served as a generalized activity space for the household, possibly with a loft providing storage and additional sleeping space above. The second occupation of the house (c.1705/08-1720s) featured a wood floor laid atop a layer of fill that evened out the burnt remains of the earlier floor. This floor was constructed of three vertically laid wooden joists at 1.2m intervals onto which horizontal floor boards were nailed. The southern end of this floor abuts a large 2.8m by 90 cm hearth, also constructed in the manner of the earlier hearth with local flat stones. This hearth, in contrast to the earlier one, was bordered by a line of upright stones and was generally more soundly constructed. This occupation also featured a brick oven recessed into the rear fireplace wall, off center to the right of the fire. The artifact assemblage of this second occupation event is slightly more suggestive than that of the former in terms of an internal division of space. An analysis of the distribution of these artifacts provided a picture that would correspond with either a one- or a two-celled division (in which case the structure would be divided into a living area and a sleeping area) of the interior space. The arguments for either scenario are outlined in Chapter 5. It is not possible to make any conclusions about interior partitioning of space in this level of the structure, but is only responsible to note that both possibilities are feasible.

3) What kinds of activities took place within the structure? Are any activity spaces evident?

3.1 Activity Spaces

Although, as previously noted, it is not possible to say for sure what manner of room partitioning existed in the structure, it is still quite possible to make inferences about activity spaces within the house. Even if not structurally divided, the interior spaces of seventeenth- and eighteenth-century houses were at least in practice symbolically divided into areas akin to the 'hall' and 'chamber' spaces of two-celled buildings. The area closest to the hearth was used for entertaining and for household activities such as preparing meals, eating and socializing. This generally is reflected in artifact assemblages. Hearthside spaces typically reveal high concentrations of dishes, wine bottles, drinking vessels and clay tobacco pipes. Storage vessels tend to be found further away from the hearth.

To attempt to distinguish activity spaces within Structure 15, artifacts were plotted according to class, and the numbers and types of objects from the southern hearthside end of the house were compared to those from the northern half (see Chapter 5). It was discovered that the earlier gravel-floored occupation (c.1697-1705/08) showed no clear concentration of artifacts by function, suggesting that this floor likely featured a one-cell plan with a single generalized activity space. The results from the later wooden floor (c.1705/08-1720s) are more suggestive of a possible internal division of activity spaces. A reasonable percentage of food and beverage service vessels along with a high

percentage of clay tobacco pipe fragments were concentrated in the southern hearthside area, although a relatively even distribution of beverage service vessels suggests that the hearthside was not the only area of social activity in the house. By contrast, food storage and cooking vessels tended to be concentrated in the northern half, possibly stored in an overhead loft space. It is not possible to conclude whether or not the wood-floored occupation of the dwelling was physically divided into separate activity spaces; either a two- or a single-celled theory could be surmised from the findings as previously noted. Analysis of the assemblage of this occupation is suggestive, based on an understanding of how social life in the seventeenth- and eighteenth-centuries tended to dictate ways of organizing domestic space, but yet remains inconclusive.

3.2 Activities and Everyday Domestic Life at Eighteenth-century Ferryland

It is possible to speak not only about activity spaces, but also to speak of the specific activities that occurred within those spaces. The previous paragraphs discussed the interior division of space within the household into generalized activity areas and the implications that can be derived from the material culture regarding the spatial socialization of its inhabitants. This section seeks to note more specifically the everyday food preparation, occupational and leisure activities that were likely occurring within the household on a regular basis.

The artifact assemblage has been particularly telling regarding the sorts of activities taking place within the household. Artifacts relating to the preparation, serving and

consumption of food and beverage make up the bulk of the assemblage at Structure 15 and span all manner of artifact classes, including the ceramic assemblage, the glass assemblage (wine bottles, spirits bottles, wine glasses), the metal assemblage (cutlery and cooking implements), and even architectural evidence (hearthside space and the brick oven, used for baking during the secondary occupation of the structure). That they make up such a high proportion of the total collection at the site is evidence for how important an aspect this was of the colonists' lives. The types of artifacts that were being used are informative of the types of processes being used to procure food (i.e.: a high frequency of storage pots indicates the planters' reliance on trade for goods), to prepare food (kettles, pots, skillets and fleshpots and the incidence of the brick oven are all indicative of particular ways of preparing meals), and to serve food (different ware types indicate varying degrees of elaborateness in presentation) (see Chapters 5, 6 and 7).

Artifacts also provide information regarding the occupational activities of the inhabitants of Structure 15. The fishery artifacts excavated in association with the structure, which include fish hooks, a lead jigger and a boat pintle, verify that the eighteenth-century planters continued to make their living off of the Newfoundland fishery. The existence of ammunition points to the hunting activities of the settlers, and the corresponding iron slag and lead sprue that occur in the structure are evidence that minor metal working was a regular activity within the household (particularly with respect to the creation of ammunition) (see Chapter 9). The presence of an axe emphasizes the act of gathering and processing of wood for fuel, cooking and construction. The increased frequency of

wine bottles in particular and of beverage service vessels in general during the secondary occupation of the structure (ca. 1705/08-1720s) demonstrates the likelihood that the planters of eighteenth-century Ferryland, once the stress of the initial resettlement period waned, were like their pre-raid predecessors beginning to become involved in the selling of spirits once again for extra income (see Chapter 7). It should not be forgotten that such artifacts are as indicative of occupational activities as well as social activities.

As indicators of social activity, the number of beverage service vessels associated with the two occupations of Structure 15 shed interesting light upon the leisure life of its inhabitants over the course of time. As noted in Chapters 6 and 7, the number and variety of such vessels increased rather dramatically from the initial gravel-floored phase of occupation to the later wood-floored phase. During the initial resettlement at the colony, the utilitarian and homogenous nature of the assemblage indicates that image and elevated levels of social interaction were perhaps either not feasible economically for the planters, or perhaps merely not their primary concern in the face of rebuilding, resettling and withstanding the fairly constant state of war that persisted in the Avalon throughout the first decade of the eighteenth century. Following the second reconstruction phase of the house in the latter part of that decade, it appears that as the troubles on the Avalon began to quiet at the end of Queen Anne's reign, the planters began to once again approach the earlier prosperity of pre-raid Ferryland and began to become more concerned with social image, social niceties and entertaining on a higher level. This is reflected, as discussed in Chapters 6 and 7, in the ceramic and glass assemblages. The

clay tobacco pipe assemblage is also indicative of the importance of social interaction to the planters. The sheer numbers that these and drink-related artifacts occur on this site and elsewhere in Ferryland demonstrate how significant the pastimes of drinking and smoking were to the settlers. Settlers were regularly imbibing wine, ale and spirits and smoking with their neighbours and patrons. The predominant concentration of artifacts related to drinking and smoking around the fire indicates that the hearth was an important locus of such activities; although, even away from the fire, alcohol and tobacco functioned as "little hearths" in themselves, reminiscent of the warmth and social comfort related to partaking in these activities hearthside (Pope 2004:396).

4) How does this structure compare to those from earlier occupations at Ferryland and how does it in turn relate to the broader growth of the community? What does this tell us about how life at the colony changed following resettlement?

The eighteenth-century British colonial world is often described by scholars as a period of great economic growth in the New World. This statement is no less true for Newfoundland than it is for the rest of British North America. A quick comparison of two accounts of imports entering St. John's in 1677 and in 1742 provides evidence of the marked economic growth that occurred during the intervening time period (see Tables 10.1 and 10.2). The second collection of data indeed demonstrates a substantial increase in total quantities of imports. In spite of the broad applicability of this expansive statement to Newfoundland's economy, it is important to note that, in the case of Newfoundland, the growth characteristic of the British colonial economy in the

Table 10.1 Imports of Provisions into St. John's, Newfoundland: 1677

	England	France	America	West Indies	Islands
Bread (lbs)	50 000	20 000	6 000		
Flour (lbs)	25 000	8 000	4 000		5 000
Pork (bbl.)[1]	162	42	20		21
Beef (cwt.)[2]	30				
Peas (hhd.)[3]	150		50		
Oil (small jars)					500
Sugar	120cwt.			20hhd.	20cwt.
Molasses (tuns)[4]				14	
Rum (tuns)	16			16	
Malt (hhd.)	50				
Hops (lbs)	2000				
Wines (tuns)	110	15			94
Brandy (tuns)		18			
Salt (tuns)		7500			
Nets	150				
Lines (doz.)	50				

(From Head 1976: Table 6.1; for another reading of this data see Pope 2004: Table 34)

Table 10.2 Imports of Provisions into St. John's, Newfoundland: 1742

	England	Ireland	America	West Indies	Islands
Bread (lbs)	452 000	22 400	422 000		
Flour (lbs)	8 000		121 400		
Bacon (cwt.)			2 200		
Pork (bbl.)	227	1 181	91		
Beef (bbl.)	128	970			
Peas (hhd.)	141		62		
Butter (firkins)	20	798			
Sugar (bbl.)			6	188	
Molasses (hhd)			109	71	
Rum (tuns)			126	238	
Beer (hhd.)	66		5		
Tobacco (lbs)	8493		1 205		
Lumber (ft.)[5]			94 000		
Salt (hhd.)	1 680	250			9 170

(From Head 1976: Table 6.2)

[1] Barrels
[2] Hundredweight
[3] Hogshead
[4] Tonnes
[5] Feet

eighteenth century did not begin coincidentally with the start of the century. Historically it is documented that the disruptions to the fishery which occurred as a result of the ongoing wars between France and England kept the level of total economic activity in Newfoundland at a low plateau well into the 1700s. The considerable and regular disruptions to the settlements resulted in a corresponding depression in the fishery, with hauls during the period decreasing to less than half of those characteristic of the seventeenth century (Head 1976:63). Many West Country merchants, having lost both investment capital and earnings during the war failed to continue to fit out for Newfoundland.

The assemblage from Structure 15 at Area F does indeed reflect the wartime environment that characterized Newfoundland at the turn of the eighteenth century. Evidence of the repeated attacks discussed in the historical record exists as living proof in the assemblage at this site. Furthermore, the archaeological assemblage demonstrates that during the initial reoccupation period, the settlers of Ferryland indeed experienced a degree of economic stress which distinguished their household inventory from those of the earlier Ferryland planters and dwellings in contemporary contexts elsewhere (see Chapters 6 and 7). Given that Ferryland experienced losses which according to Prowse approached roughly £12,000 (1895:221), the artifact collection at Structure 15 reflects that the circa 1696-1705/08 Ferryland planters were more focused upon acquiring necessary utilitarian wares and forms, apparently having less income to spend upon excess amounts of wares and those vessel types which reflect a more socially elevated status. Perhaps at this point,

the colonists were investing more wealth into rebuilding than they were into acquiring goods. Comparisons of the volume and frequencies of vessels and ware types accrued between this assemblage and those of earlier Ferryland dwellings demonstrate a marked difference (see Chapter 6). There is also a substantial difference in the numbers of drinking-related artifacts in this earlier assemblage compared to those from pre-raid dwellings at Ferryland and contemporary dwellings elsewhere, indicating that the resettlement period planters likely did not have excess money and energy to be spent upon excess entertaining and social niceties. Artifacts of personal adornment and costume are unremarkable. Architecture choices also reflect this difference. Pragmatism clearly played a role in the decisions made by the settlers during the initial reoccupation period regarding construction materials. Particular conscious choices were made not only to reuse other preexisting materials in the house's construction, but also to exploit the opportunity to use a cheaper method of flooring, avoiding the labor, time and cost of sawn planks in favor of the gravel floor. This can be interpreted as a logical decision on behalf of those resettling the site who were certainly both aware of and influenced by the instability of life at the colony during this time. The decision to later rebuild a more expensive and substantial floor (c.1705/08) for the second occupation sequence may be an indication of a more stabilizing environment during this time period, as may be the changes in the artifact assemblage discussed throughout this thesis.

It is often stated that generally the economic depression which characterized Newfoundland throughout the wars did not begin to alleviate until well into the

eighteenth century and that the trend towards the increased economic activity evident in Table 10.2 only began to be felt on the Avalon in the 1720s (Head 1976:56). At least for one family at Ferryland, this trend appears to have begun by the end of the first decade of the century. The assemblage of the second occupation period associated with Structure 15 (c.1705/08-1720s) already begins to more closely approximate those from pre-raid Ferryland and other more economically stable colonies in New England and the Chesapeake during the same period. Ceramic and glass wares indicating higher status and increased levels of disposable income are reintroduced into the household at this time (see Chapters 6 and 7). Higher numbers of vessels exist in this assemblage, and vessel form types, such as wine glasses and teacups, which are indicative of higher levels of social interaction also become present. The inhabitants at Structure 15 appear to have become re-involved in higher levels of alcohol consumption and perhaps vending, once again approaching the earlier activities and lifestyles of their pre-raid predecessors. While it would still be another few years before the Southern Shore fully recuperated and restored itself to its earlier economic success, it appears that from this point onwards, at Ferryland at least, the production from Newfoundland's fishery stabilized and rebounded, leading to the increase in permanent resident population and the expansion of Newfoundland's economy known to have occurred in the eighteenth century.

10.3 Summary of Thesis

Following the introduction to this project outlined in Chapter 1, Chapter 2 of this thesis outlined the history of Ferryland, beginning with the early fishery, moving into the permanent settlement of Calvert's colony in the seventeenth century, and finally to a consideration of the French raids on the Southern Shore during the late seventeenth and early eighteenth centuries. A historical background to these conflicts was offered as were details regarding the sequence of attacks that took place on Ferryland. Chapters 3 and 4 dealt respectively with the history of archaeological excavations at Ferryland and the specific excavations which have taken place at Area F, noting the historical and geographical processes and disturbances associated with Structure 15 and the stratigraphy and events of the site. Chapter 5 summarized the architectural remains of each level of occupation associated with Structure 15, outlining the structural characteristics and dimensions of the courtyard and the house, discussing construction techniques and materials, as well as possible internal divisions of space framed within the vernacular tradition of eighteenth-century English homes. A consideration of parallels in other eighteenth-century architecture is incorporated into this analysis. Chapters 6, 7 and 8 outlined the methodology employed in analyzing the ceramic, glass and clay tobacco pipe assemblages. Each chapter detailed the characteristics, forms and vessels identified for each class of artifacts excavated from Structure 15. Dates were inferred from the assemblage and a proposed sequence of occupation offered (1697-1721). The chapters each concluded by discussing the implications derived from the various assemblage regarding the lifestyles and history of the occupants of the dwelling. Chapter 9 outlined

all remaining artifacts, and the knowledge that could be gleaned from each, that were not represented by the prior three chapters. The chapter in turn analyzed artifacts of household and food-related function, currency, artifacts of personal adornment, fishery-related artifacts as well as hardware and ammunition associated with the dwelling. Chapter 10 has represented a synthesis of the accumulated body of information provided in all of the preceding chapters as a means of addressing the research questions and objectives outlined at the start of this thesis. Each question has been addressed in turn and answered to the fullest possible extent by the knowledge gleaned from this researcher's excavations of Structure 15.

10.4 Conclusion and Directions for Future Research

The research presented in this thesis has been an attempt, through the synthesis of a variety of analyses of the archaeological remains of Structure 15, to address the broader objective of analyzing the transitional resettlement period at Ferryland following the abandonment of the colony in 1696. Through the analysis of one post-1696 dwelling, I have attempted to begin to expand the current understanding of colonial Ferryland into the eighteenth century by attempting to understand the ways in which the raid of 1696 and the events that followed this raid impacted and changed the social and economic context of life at the colony.

This study is only the first step towards developing such an understanding. While Structure 15 has offered a glimpse into the early eighteenth-century world at the colony,

it indeed remains only one perspective of planter life at Ferryland during this period: that of one middling class household. Further research into this time period at the settlement is warranted before a fuller understanding can be reached regarding the economic and social characteristics of Ferryland during this era. Further, this body of research would benefit from the integration of a wider corpus of comparative early eighteenth-century domestic structures. The larger the accumulated sample of data, the richer our understanding of what this comparatively understudied time period at the site will become.

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APPENDIX A: CATALOGUE OF IDENTIFIED CERAMIC VESSELS

Appendix A: Catalogue of Identified Ceramic Vessels

Abbreviations used:
ND-GT: North Devon Gravel-Tempered
ND-S: North Devon Smooth
EW: Earthenware

COARSE EATHENWARES

Vessel C1

Ceramic Type	Form	Sherd Type	Comments
Unidentified: poss. Breton?	Unidentified	Body	Grey, micaceous fabric

Catalogue #: 513517
Event #: 659

Vessel C2

Ceramic Type	Form	Sherd Type	Comments
Unidentified: poss. Breton?	Unidentified	Body	Grey, micaceous fabric

Catalogue #: 513707
Event #: 643

Vessel C3

Ceramic Type	Form	Sherd Type	Comments
Borderware	Unidentified	Handle	White fabric; delicate

Catalogue #: 511638
Event #: 643

Vessel C4

Ceramic Type	Form	Sherd Type	Comments
Bristol Staffordshire	Unidentified	Body	

Catalogue #: 517044; 507334; 515451; 510039
Event #: 643

Vessel C5

Ceramic Type	Form	Sherd Type	Comments
Bristol Staffordshire	Mug	Whole	Queen Anne's reign 1702-1714

Catalogue #:
Event #:

Vessel C6

Ceramic Type	Form	Sherd Type	Comments
Bristol Staffordshire	Galleypot	Body; base	

Catalogue #: 513332+; 513529: 513528
Event #: 643

Vessel C7

Ceramic Type	Form	Sherd Type	Comments
Bristol Staffordshire	Mug	Rim	14cm diameter; jeweled decoration

Catalogue #: 518583+
Event #: 643

Vessel C8

Ceramic Type	Form	Sherd Type	Comments
Bristol Staffordshire	Unidentified	Body	

Catalogue #: 519387+
Event #: 659

Vessel C9

Ceramic Type	Form	Sherd Type	Comments
Bristol Staffordshire	Mug	Rim	Jewelled decoration

Catalogue #: 516648+
Event #: 643

Vessel C10

Ceramic Type	Form	Sherd Type	Comments
Bristol Staffordshire	Unidentified	Handle	

Catalogue #: 516648+
Event #: 643

Vessel C11

Ceramic Type	Form	Sherd Type	Comments
Bristol Stafordshire	Unidentified	Body	

Catalogue #: 517538
Event #: 663

Vessel C12

Ceramic Type	Form	Sherd Type	Comments
Bristol Staffordshire	Unidentified	Handle; Body	Maganese mottled

Catalogue #: 512929; 505673; 505674; 509919; 506807+
Event #: 643; 645

Vessel C13

Ceramic Type	Form	Sherd Type	Comments
Bristol Staffordshire	Unidentified	Body	Maganese mottled

Catalogue #: 507736
Event #: 643

Vessel C14

Ceramic Type	Form	Sherd Type	Comments
Buckleyware	Butterpot	Rim	35cm diameter

Catalogue #: 509953
Event #: 645

Vessel C15

Ceramic Type	Form	Sherd Type	Comments
Buckleyware	Unidentified	Body	

Catalogue #: 515716; 515715
Event #: 643

Vessel C16

Ceramic Type	Form	Sherd Type	Comments
Exeter Coarse Sandy	Unidentified	Body	

Catalogue #: 507733; 509929
Event #: 643; 645

Vessel C17

Ceramic Type	Form	Sherd Type	Comments
Exeter Coarse Sandy	Unidentified	Body	

Catalogue #: 515657; 517540; 517161; 616629
Event #: 659; 663

Vessel C18

Ceramic Type	Form	Sherd Type	Comments
Italian marble dipware	Unidentified	Body	

Catalogue #: 515604
Event #: 643

Vessel C19

Ceramic Type	Form	Sherd Type	Comments
Midlands purple	Pitcher	Rim; body	

Catalogue #: 518890; 517039; 507772; 508127; 511846; 514328
Event #: 643; 645; 656

Vessel C20

Ceramic Type	Form	Sherd Type	Comments
Merida	Jar	Whole mouth	

Catalogue #: 517035
Event #: 643

Vessel C21

Ceramic Type	Form	Sherd Type	Comments
Merida	Unidentified	Base	

Catalogue #: 516500
Event #: 659

Vessel C22

Ceramic Type	Form	Sherd Type	Comments
Merida	Unidentified	Body	Incised

Catalogue #: 517422
Event #: 643

Vessel C23

Ceramic Type	Form	Sherd Type	Comments
Merida	Unidentified	Body	

Catalogue #: 512956; 505363; 516239
Event #: 643; 645

Vessel C24

Ceramic Type	Form	Sherd Type	Comments
Merida	Unidentified	Body	

Catalogue #: 518388
Event #: 663

Vessel C25

Ceramic Type	Form	Sherd Type	Comments
Merida	Unidentified	Body	

Catalogue #: 595689+; 517036; 505688
Event #: 643

Vessel C26

Ceramic Type	Form	Sherd Type	Comments
Merida	Unidentified	Body	Burnt

Catalogue #: 506693
Event #: 645

Vessel C27

Ceramic Type	Form	Sherd Type	Comments
Merida	Unidentified	Body	

Catalogue #: 514301+; 507307; 514278; 514301+
Event #: 643

Vessel C28

Ceramic Type	Form	Sherd Type	Comments
Merida	Unidentified	Body	

Catalogue #: 516435; 516613; 516434
Event #: 643

Vessel C29

Ceramic Type	Form	Sherd Type	Comments
Merida	Unidentified	Body	

Catalogue #: 505709; 513504
Event #: 643

Vessel C30

Ceramic Type	Form	Sherd Type	Comments
Merida	Unidentified	Body	

Catalogue #: 506651; 505687; 505686
Event #: 645

Vessel C31

Ceramic Type	Form	Sherd Type	Comments
Merida	Unidentified	Body	

Catalogue #: 515648; 515377; 517050
Event #: 643

Vessel C32

Ceramic Type	Form	Sherd Type	Comments
Merida	Unidentified	Body	

Catalogue #: 516495+; 517914; 517917+
Event #: 663

Vessel C33

Ceramic Type	Form	Sherd Type	Comments
Merida	Unidentified	Body	

Catalogue #: 505634; 517255
Event #: 645; 643

Vessel C34

Ceramic Type	Form	Sherd Type	Comments
ND-GT	Unidentified	Rim/neck; shoulder	23cm diameter

Catalogue #: 516661; 517250; 513470
Event #: 643

Vessel C35

Ceramic Type	Form	Sherd Type	Comments
ND-GT	Pot	Rim; body	

Catalogue #: 512914; 512913; 517430; 512835; 507653; 515720; 518477; 516428
Event #: 643

Vessel C36

Ceramic Type	Form	Sherd Type	Comments
ND-GT	Pot	Rim	19cm diameter

Catalogue #: 507654
Event #: 643

Vessel C37

Ceramic Type	Form	Sherd Type	Comments
ND-GT	Unidentified	Rim; handle	

Catalogue #: 517090+; 517092; 515595
Event #: 643

Vessel C38

Ceramic Type	Form	Sherd Type	Comments
ND-GT	Unidentified	Rim	

Catalogue #: 514296
Event #: 643

Vessel C39

Ceramic Type	Form	Sherd Type	Comments
ND-GT	Pot	Body	

Catalogue #: 518054; 517268; 515647
Event #: 643

Vessel C40

Ceramic Type	Form	Sherd Type	Comments
ND-GT	Unidentified	Rim/neck	

Catalogue #: 513515+
Event #: 643

Vessel C41

Ceramic Type	Form	Sherd Type	Comments
ND-GT	Jar	Rim	

Catalogue #: 516745
Event #: 643

Vessel C42

Ceramic Type	Form	Sherd Type	Comments
ND-GT	Unidentified	Handle	

Catalogue #: 517252
Event #: 643

Vessel C43

Ceramic Type	Form	Sherd Type	Comments
ND-GT	Unidentified	Body	

Catalogue #: 516657; 515385
Event #: 643

Vessel C44

Ceramic Type	Form	Sherd Type	Comments
ND-GT	Unidentified	Body	

Catalogue #: 515717; 517034
Event #: 643

Vessel C45

Ceramic Type	Form	Sherd Type	Comments
ND-GT	Unidentified	Base	Very heavy vessel

Catalogue #: 508890
Event #: 643

Vessel C46

Ceramic Type	Form	Sherd Type	Comments
ND-GT	Unidentified	Body	

Catalogue #: 508524; 514305+
Event #: 643

Vessel C47

Ceramic Type	Form	Sherd Type	Comments
ND-GT	Fleshpot	Handle; body	Burnt

Catalogue #: 508135
Event #: 643

Vessel C48

Ceramic Type	Form	Sherd Type	Comments
ND-GT	Unidentified	Rim	

Catalogue #: 517606+
Event #: 643

Vessel C49

Ceramic Type	Form	Sherd Type	
ND-GT	Unidentified	Neck/shoulder	

Catalogue #: 514420
Event #: 643

Vessel C50

Ceramic Type	Form	Sherd Type	Comments
ND-GT	Bottle	Mouth/neck	3cm diameter

Catalogue #: 518595; 518596
Event #: 643

Vessel C51

Ceramic Type	Form	Sherd Type	Comments
ND-GT	Unidentified	Body	

Catalogue #: 514600; 514304; 514608
Event #: 643

Vessel C52

Ceramic Type	Form	Sherd Type	Comments
ND-GT	Unidentified	Rim	Heavy vessel

Catalogue #: 518053
Event #: 643

Vessel C53

Ceramic Type	Form	Sherd Type	Comments
ND-GT	Unidentified	Rim	Heavy vessel

Catalogue #: 516745
Event #: 643

Vessel C54

Ceramic Type	Form	Sherd Type	Comments
ND-GT	Unidentified	Rim	

Catalogue #: 518481
Event #: 643

Vessel C55

Ceramic Type	Form	Sherd Type	Comments
ND-GT	Unidentified	Neck	

Catalogue #: 514609
Event #: 643

Vessel C56

Ceramic Type	Form	Sherd Type	Comments
ND-GT	Unidentified	Rim	20cm diameter

Catalogue #: 515608
Event #: 643

Vessel C57

Ceramic Type	Form	Sherd Type	Comments
ND-GT	Unidentified	Rim	

Catalogue #: 514609
Event #: 643

Vessel C58

Ceramic Type	Form	Sherd Type	Comments
ND-GT	Unidentified	Body	

Catalogue #: 510761; 518403; 511365
Event #: 643

Vessel C59

Ceramic Type	Form	Sherd Type	Comments
ND-GT	Unidentified	Body	

Catalogue #: 507250; 506644+; 506646
Event #: 645

Vessel C60

Ceramic Type	Form	Sherd Type	Comments
ND-GT	Unidentified	Base	

Catalogue #: 507302
Event #: 645

Vessel C61

Ceramic Type	Form	Sherd Type	Comments
ND-GT	Unidentified	Rim	14cm diameter

Catalogue #: 506645
Event #: 645

Vessel C62

Ceramic Type	Form	Sherd Type	Comments
ND-GT	Unidentified	Base	

Catalogue #: 507301
Event #: 645

Vessel C63

Ceramic Type	Form	Sherd Type	Comments
ND-GT	Unidentified	Base	

Catalogue #: 506692
Event #: 645

Vessel C64

Ceramic Type	Form	Sherd Type	Comments
ND-GT	Unidentified	Rim	22cm diameter

Catalogue #: 504303
Event #: 645

Vessel C65

Ceramic Type	Form	Sherd Type	Comments
ND-GT	Dish	Rim	27cm diameter

Catalogue #: 506690
Event #: 645

Vessel C66

Ceramic Type	Form	Sherd Type	Comments
ND-GT	Pot	Rim	35cm diameter

Catalogue #: 508695; 506691
Event #: 645

Vessel C67

Ceramic Type	Form	Sherd Type	Comments
ND-GT	Unidentified	Body	

Catalogue #: 506689; 506688
Event #: 645

Vessel C68

Ceramic Type	Form	Sherd Type	Comments
ND-GT	Unidentified	Rim	Decorated

Catalogue #: 510479; 510486; 516428; 508531: 508530
Event #: 645

Vessel C69

Ceramic Type	Form	Sherd Type	Comments
ND-GT	Unidentified	Body	

Catalogue #: 506689; 506688
Event #: 645

Vessel C70

Ceramic Type	Form	Sherd Type	Comments
ND-GT	Fleshpot	Rim; handle	

Catalogue #: 517251
Event #:659

Vessel C71

Ceramic Type	Form	Sherd Type	Comments
ND-GT	Unidentified	Neck	Interior glaze

Catalogue #: 513516
Event #: 659

Vessel C72

Ceramic Type	Form	Sherd Type	Comments
ND-GT	Tallpot	Rim	15cm diameter

Catalogue #: 513525
Event #: 659

Vessel C73

Ceramic Type	Form	Sherd Type	Comments
ND-GT	Unidentified	Neck	

Catalogue #: 515654
Event #: 659

Vessel C74

Ceramic Type	Form	Sherd Type	Comments
ND-GT	Dish	Rim	24cm diameter

Catalogue #: 518052
Event #: 659

Vessel C75

Ceramic Type	Form	Sherd Type	Comments
ND-GT	Drinking vessel	Rim	

Catalogue #: 516614
Event #: 659

Vessel C76

Ceramic Type	Form	Sherd Type	Comments
ND-GT	Unidentified	Neck	

Catalogue #: 516617
Event #:659

Vessel C77

Ceramic Type	Form	Sherd Type	Comments
ND-GT	Unidentified	Rim	Heavy vessel

Catalogue #: 517899
Event #: 659

Vessel C78

Ceramic Type	Form	Sherd Type	Comments
ND-GT	Pot	Base	Interior glaze

Catalogue #: 517254
Event #: 663

Vessel C79

Ceramic Type	Form	Sherd Type	Comments
ND-GT	Fleshpot	Handle; body	

Catalogue #: 517122
Event #: 663

Vessel C80

Ceramic Type	Form	Sherd Type	Comments
ND-GT	Pot	Neck	

Catalogue #: 518059
Event #: 663

Vessel C81

Ceramic Type	Form	Sherd Type	Comments
ND-GT	Unidentified	Body	

Catalogue #: 515684
Event #: 663

Vessel C82

Ceramic Type	Form	Sherd Type	Comments
ND-GT	Unidentified	Rim	

Catalogue #: 515596
Event #: 663

Vessel C83

Ceramic Type	Form	Sherd Type	Comments
ND-GT	Unidentified	Body	

Catalogue #: 516494; 515494
Event #: 663

Vessel C84

Ceramic Type	Form	Sherd Type	Comments
ND-S	Unidentified	Base	

Catalogue #: 516508; 516743
Event #: 643

Vessel C85

Ceramic Type	Form	Sherd Type	Comments
ND-S	Unidentified	Body	

Catalogue #: 517605; 517607; 517612
Event #: 643

Vessel C86

Ceramic Type	Form	Sherd Type	Comments
ND-S	Unidentified	Body	Delicate; nice homogenous glaze

Catalogue #: 507734
Event #: 643

Vessel C87

Ceramic Type	Form	Sherd Type	Comments
ND-S	Unidentified	Shoulder/neck	

Catalogue #: 517517
Event #: 643

Vessel C88

Ceramic Type	Form	Sherd Type	Comments
ND-S	Unidentified	Rim	16cm diameter; nicely glazed

Catalogue #: 517434
Event #: 643

Vessel C89

Ceramic Type	Form	Sherd Type	Comments
ND-S	Tallpot	Rim	

Catalogue #: 509820
Event #: 645

Vessel C90

Ceramic Type	Form	Sherd Type	Comments
ND-S	Unidentified	Body	

Catalogue #: 506799
Event #: 645

Vessel C91

Ceramic Type	Form	Sherd Type	Comments
ND-S	Unidentified	Rim	

Catalogue #: 506799
Event #: 645

Vessel C92

Ceramic Type	Form	Sherd Type	Comments
ND-S	Unidentified	Neck	Incised

Catalogue #: 507255
Event #: 645

Vessel C93

Ceramic Type	Form	Sherd Type	Comments
ND-S	Unidentified	Body	

Catalogue #: 506642; 506652; 509913; 508869
Event #: 645

Vessel C94

Ceramic Type	Form	Sherd Type	Comments
ND-S	Pot	Neck	

Catalogue #: 517427; 516560; 516553; 517905+
Event #: 659

Vessel C95

Ceramic Type	Form	Sherd Type	Comments
ND-S	Unidentified	Neck	Interior glaze

Catalogue #: 517057
Event #: 659

Vessel C96

Ceramic Type	Form	Sherd Type	Comments
ND-S	Unidentified	Base	Badly degraded

Catalogue #: 517673
Event #: 659

Vessel C97

Ceramic Type	Form	Sherd Type	Comments
ND-S	Unidentified	Neck	Interior glaze

Catalogue #: 516439
Event #: 659

Vessel C98

Ceramic Type	Form	Sherd Type	Comments
ND-S	Unidentified	Rim	Interior glaze

Catalogue #: 517551
Event #: 659

Vessel C99

Ceramic Type	Form	Sherd Type	Comments
ND-S	Unidentified	Body	

Catalogue #: 514291
Event #: 659

Vessel C100

Ceramic Type	Form	Sherd Type	Comments
ND-S	Unidentified	Body	

Catalogue #: 517905
Event #: 659

Vessel C101

Ceramic Type	Form	Sherd Type	Comments
ND-S	Unidentified	Body	

Catalogue #: 517079
Event #: 659

Vessel C102

Ceramic Type	Form	Sherd Type	Comments
ND-S	Tallpot	Body	Interior glaze

Catalogue #: 517023
Event #: 663

Vessel C103

Ceramic Type	Form	Sherd Type	Comments
ND-S	Tallpot	Body	Interior glaze

Catalogue #: 517023
Event #: 663

Vessel C104

Ceramic Type	Form	Sherd Type	Comments
ND-S	Unidentified	Handle	

Catalogue #: 516629
Event #: 663

Vessel C105

Ceramic Type	Form	Sherd Type	Comments
ND-S	Tallpot	Body	

Catalogue #: 517249; 515599; 517248; 515748; 517086; 517118+; 517110; 515379; 516750; 513509; 516233; 514310; 516228; 517037; 517519; 516612; 517110; 516438
Event #: 643

Vessel C106

Ceramic Type	Form	Sherd Type	Comments
ND-S	Unidentified	Body	

Catalogue #: 518461; 515653; 517087
Event #: 643

Vessel C107

Ceramic Type	Form	Sherd Type	Comments
ND-S	Unidentified	Body	

Catalogue #: 510417; 516653
Event #: 645

Vessel C108

Ceramic Type	Form	Sherd Type	Comments
ND-S	Unidentified	Body	

Catalogue #: 518418
Event #: 663

Vessel C109

Ceramic Type	Form	Sherd Type	Comments
ND Sgraffito	Unidentified	Body	

Catalogue #: 505711
Event #: 645

Vessel C110

Ceramic Type	Form	Sherd Type	Comments
ND Sgraffito	Unidentified	Body	

Catalogue #: 514633
Event #: 643

Vessel C111

Ceramic Type	Form	Sherd Type	Comments
ND Sgraffito	Unidentified	Body	

Catalogue #: 515695
Event #: 643

Vessel C112

Ceramic Type	Form	Sherd Type	Comments
ND Whiteware	Unidentified	Base	

Catalogue #: 517257; 516551; 516238
Event #: 643

Vessel C113

Ceramic Type	Form	Sherd Type	Comments
Saintonge	Unidentified	Body	

Catalogue #: 508470; 505702
Event #: 643; 645

Vessel C114

Ceramic Type	Form	Sherd Type	Comments
South Somerset	Unidentified	Base	

Catalogue #: 511644
Event #: 643

Vessel C115

Ceramic Type	Form	Sherd Type	Comments
South Somerset	Drinking vessel	Body	Interior and exterior glaze

Catalogue #: 505354; 513537; 505354; 502235
Event #: 643; 645

Vessel C116

Ceramic Type	Form	Sherd Type	Comments
South Somerset	Unidentified	Body	

Catalogue #: 505700; 505786
Event #: 645

Vessel C117

Ceramic Type	Form	Sherd Type	Comments
South Somerset	Unidentified	Body	

Catalogue #: 516437
Event #: 645

Vessel C118

Ceramic Type	Form	Sherd Type	Comments
Spanish heavy	"Olive" Jar	Body; base	

Catalogue #: 508699+
Event #: 645

Vessel C119

Ceramic Type	Form	Sherd Type	Comments
Totnes	Unidentified	Body	

Catalogue #: 518065
Event #: 643

Vessel C120

Ceramic Type	Form	Sherd Type	Comments
Verwood	Pot	Body	

Catalogue #: 505797
Event #: 645

COARSE STONEWARES

Vessel C121

Ceramic Type	Form	Sherd Type	Comments
Dipped English White Salt-Glazed	Unidentified	Body	

Catalogue #: 510186; 507777; 506661+
Event #: 643; 645

Vessel C122

Ceramic Type	Form	Sherd Type	Comments
Normandy	Ewer	Rim	

Catalogue #: 506489
Event #: 645

Vessel C123

Ceramic Type	Form	Sherd Type	Comments
Westerwald	Mug	Body	William III crest

Catalogue #: 502261; 506659
Event #: 645

Vessel C124

Ceramic Type	Form	Sherd Type	Comments
Westerwald	Mug	Body; handle	William III crest

Catalogue #: 512919; 505671; 505525; 506660; 513501; 517665; 506658
Event #: 643; 645

Vessel C125

Ceramic Type	Form	Sherd Type	Comments
Westerwald	Unidentified	Body	

Catalogue #: 517871; 513486; 505670
Event #: 643

Vessel C126

Ceramic Type	Form	Sherd Type	Comments
Westerwald	Unidentified	Body	

Catalogue #: 514435
Event #: 643

Vessel C127

Ceramic Type	Form	Sherd Type	Comments
Rhenish	Unidentified	Body	Partial face (bellarmine?)

Catalogue #: 516554; 517141
Event #: 643; 663

TIN-GLAZED EARTHENWARES

Vessel C128

Ceramic Type	Form	Sherd Type	Comments
English Delftware	Bowl	Body; base	Pinkish glaze on interior; lead glazed exterior; monochrome geometric blue decoration

Catalogue #: 517025+; 514294; 513718; 514412; 516445; 516505; 513440; 517618; 515392; 515723; 515732; 516252; 515389; 514413; 514294; 515663; 516505; 516507; 515704; 514462; 518589; 516448; 507732; 515390; 516218; 507331
Event #: 643; 659; 645; 663

Vessel C129

Ceramic Type	Form	Sherd Type	Comments
English Delftware	Bowl	Body; rim	Pinkish glaze on interior; lead glaze on exterior; abstract blue flowers with purple lines

Catalogue #: 516505; 517261; 515741; 516443; 515728; 516253; 516444; 516548; 515729
Event #: 643; 659

Vessel C130

Ceramic Type	Form	Sherd Type	Comments
French Faience	Plate	Rim; body	Blue tinted glaze; blue flowers; thin brown lines

Catalogue #: 513439; 519026; 513439; 518329; 516251; 515699; 513378; 515662; 515387; 515723
Event #: 643; 656; 659

Vessel C131

Ceramic Type	Form	Sherd Type	Comments
French Faience	Teacup	Body; rim	Set with vessel 130

Catalogue #: 515740; 515706; 515724; 517564; 517708; 517262; 516450; 516446; 516653; 517544; 517617
Event #: 643; 659

Vessel C132

Ceramic Type	Form	Sherd Type	Comments
French Faience	Saucer	Body; rim	Set with vessel 129

Catalogue #: 516654; 517262; 516449; 516441; 515735; 517535; 515731; 516626; 515707; 516624; 516732; 515710; 516550; 517536; 515727; 516650; 517816; 516628; 517854; 5157091 515725; 517616; 517543; 516753; 516625
Event #: 643

Vessel C133

Ceramic Type	Form	Sherd Type	Comments
Portuguese Majolica	Plate	Rim; body	Red inclusions; pin holes in glaze; mauve and blue lines and flowers

Catalogue #: 505696; 515670
Event #: 643; 645

Vessel C134

Ceramic Type	Form	Sherd Type	Comments
Dutch Delftware	Unindentified	Body;rim	White glaze; blue monochrome decoration

Catalogue #: 515734+; 515742; 512906
Event #: 643

Vessel C135

Ceramic Type	Form	Sherd Type	Comments
Dutch Delftware	Teacup	Base	White glaze; Blue interior decoration on base of cup

Catalogue #: 515730
Event #: 659

Vessel C136

Ceramic Type	Form	Sherd Type	Comments
Unidentified Tin-Glazed EW	Unidentified	Body	Blueish/white glaze

Catalogue #: 516651; 517537; 515742; 516546; 517649; 516547
Event #: 643

Vessel C137

Ceramic Type	Form	Sherd Type	Comments
Unidentified Tin-Glazed EW	Plate	Rim; body	Cream glaze with blue line trim

Catalogue #: 509861; 509998
Event #: 645

Vessel C138

Ceramic Type	Form	Sherd Type	Comments
Unidentified Tin-Glazed EW	Ointment Pot	Base; body	Solid white glaze

Catalogue #: 515661; 515736; 509865; 508069
Event #: 643; 645

Vessel C139

Ceramic Type	Form	Sherd Type	Comments
Unidentified Tin-Glazed	Plate	Rim	Cream glaze with blue geometric design

Catalogue #: 507233
Event #: 645

APPENDIX B: CATALOGUE OF IDENTIFIED GLASS VESSELS

Appendix B: Catalogue of Identified Glass Vessels

WINE BOTTLES

Vessel G1
506346: RIM. c.1690-1700. Measurements: lip to rim height 3mm; finish height 9.3mm, rim 6 mm below lip. Event 643.

Vessel G2
505730: RIM. c.1680-90. Measurements: lip to rim height 4mm; finish height 7.5mm; rim 3.7mm below lip. Event 643.

Vessel G3
506514: RIM. c.1700-10. Measurements: lip to rim height 3mm; finish height 9mm; rim 3.7 mm below lip; bore 18mm. Event 643.

Vessel G4
516529: RIM. c.1680-90. Measurements: lip to rim height 6mm; finish height 10mm; rim 3.4mm below lip; bore 16mm. Event 643.

Vessel G5
516532/516387: RIM. c.1660-90. Measurements: lip to rim height 5.4 mm; finish height 12mm; rim 4.6mm below lip; bore 18mm. Event 643.

Vessel G6
516539: RIM. c.1700. Measurements: lip to rim height 5.8mm; finish height 11.6mm; rim 5.7mm below lip; bore 17mm. Event 643.

Vessel G7
516484: BASE. 1700-10. Measurements: indent height 24mm; resting point diameter: 130mm. Event 643.

Vessel G8
505543: BASE. 1690-1700. Measurements: indent height: 23.8mm; resting point to pontil 59.4mm (121mm). Event 643.

Vessel G9
516456/516454/513570/513571/515487/513809: BASE. 1690-1700. Measurements: indent height 32.3mm; resting point diameter: 105.8mm. Event 643.

Vessel G10
513688: BASE. Sm. Fragment. Event 643.

Vessel G11
515955: BASE. Sm. Fragment. Event 643.

Vessel G12
516900: BASE. Sm. Fragment. Event 643.

Vessel G13
516878: BASE. Sm. Fragment. Event 643.

Vessel G14
515614: BASE. Sm. Fragment. Event 643.

Vessel G15
514141: BASE. Sm. Fragment. Event 643.

Vessel G16
505648: BASE. Sm. Fragment. Event 643.

Vessel G17
505746: BASE. Sm. Fragment. Event 643.

Vessel G18
515881: RIM. 1690. Measurements: lip to rim height 8.8mm; finish height 13mm; rim 5.4mm below lip. Event 645.

Vessel G19
507881: BASE. Sm. Fragment. Event 645.

Vessel G20
506682: BASE. Sm. Fragment. Event 645.

Vessel G21
511354: BASE. Sm. Fragment. Event 645.

Vessel G22
511256: BASE. Sm. Fragment. Event 645.

Vessel G23
510738: BASE. Sm. Fragment. Event 645.

Vessel G24
516715: BASE. Sm. Fragment. Event 659.

Vessel G25
514161. RIM. Sm. Fragment. Event 659.

Vessel G26
516944: BASE. Sm. Fragment. Event 659.

Vessel G27
516730: BASE. Sm. Fragment. Event 659.

Vessel G28
516945: RIM. 1680? Measurements: lip to rim height 9.5mm; finish height: 14.9mm; rim 5.2mm below lip; bore 20mm. Event 663.

Vessel G29
516908: BASE. Sm. Fragment. Event 663.

Vessel G30
516717: SHOULDER/NECK. Event 663.

WINE GLASSES

Vessel G31
516967: STEM/BASE. c.1710. English lead crystal. Event 643.

Vessel G32
516887: STEM/BASE. c.1710-20. English lead crystal. Event 643.

Vessel G33
516966: BASE OF GLASS. c.1710. English lead crystal. Event 643.

Vessel G34
517615; 516736; 516386; 516735: BODY. Painted Venetian wine glass. Event 659.

CASE BOTTLES

Vessel G31
516414; 516707: SHOULDER. Event 659.

Vessel G32
515942: NECK. Event 645.

Vessel G33
507832: NECK. Event 645.

Vessel G34
511244: BODY. Distinctly darker blue green colour from other vessels. Event 645.

PHARMACUETICAL BOTTLES

Vessel G35
513688: BASE. Round. Event 643.

Vessel G36
510738: BASE. Square. Event 645.

APPENDIX C: CATALOGUE OF IDENTIFIED CLAY TOBACCO PIPE BOWLS AND MAKERS MARKS

Appendix C: Catalogue of Identified Clay Tobacco Pipe Bowls and Makers Marks

IDENTIFIED BOWLS
Dates from Oswald 1975.

Pipe P1
508332: 1680-1710. West Country. Event 643.

Pipe P2
509648: 1680-1710. West Country. Event 643.

Pipe P3
510121: 1700-40. West Country. Event 643.

Pipe P4
515082: 1700-40. West Country. Event 643.

Pipe P5
515256: 1700-40. West Country. Event 643.

Pipe P6
506372: 1700-40. West Country. Event 643.

Pipe P7
515102: 1700-40. West Country. Event 643.

Pipe P8
515163: 1700-40. West Country. Event 643.

Pipe P9
505369: 1700-40. West Coutry. Event 645.

Pipe P10
504820: 1700-40. West Country. Event 645.

Pipe P11
515345: 1700-40. West Country. Event 659.

Pipe P12
515100: 1700-40. West Country. Event 659.

Pipe P13
515262: 1700-40. West Country. Event 663.

Pipe P14
515534: 1640-60. West Country. Rouletting on rim. Event 663.

Pipe P15
513339: 1600-40. West Country. Rouletting on rim. Event 663.
Pipe P16
513867: 1660-80. West Country. Lined rim, heart-shaped heel. Event 663.

Pipe P17
515050: 1640-60. West Country. Rouletting on rim. Event 663.

Pipe P18
515285: 1640-60. West Country. Rouletting on rim. Event 663.

MAKERS MARKS

Pipe P19
517510: STEM. RVB/SID/NEY. Reuben Sydney, Southhampton. 1687-1748 (Gaulton 1999:44; Oswald 1975:173; Walker 1971:81). Event 643.

Pipe P20
515017: STEM. Unidentified incised design. Event 643.

Pipe P21
508332: BOWL. Reverse side of bowl. CH. Charles Hickes, Bristol. 1721-40 (Walker 1977:1442-43). Event 643.

Pipe P22
510131: HEEL. Hearth-shaped heel. LD/LAV? or W? Possibly Poole. 1680-1720 (see Gaulton 1999:43). Event 643.

Pipe P23
514947: HEEL. R/?. On side of heel; reverse side missing. Unidentified. Late 17th/early 18th century (Gaulton 1999:27). Event 643.

Pipe P24
515278: BOWL FRAGMENT. I/JEN/INS. Jenkins, Bristol. 1707-1739 (Gaulton 1999:48; Walker 1977:1452-53). Event 643.

Pipe P25
515065: BOWL FRAGMENT. Partial mark: C? surrounded buy tow concentric circles of dots. Unidentified. Event 643.

Pipe P26
STEM: RVB/SID/NEY. Reuben Sydney, Southhampton. 1687-1748 (Gaulton 1999:44; Oswald 1975:173; Walker 1971:81). Event 645.

Pipe P27
STEM: Incised design. Unidentified. Event 645.

Pipe P28
506912: HEEL. BA/RVM. Barnstaple, Devon. 1660-1740 (Gaulton 1999:40). Event 645.

Pipe P29
516170: HEEL. BA/RVM. Barnstaple, Devon. 1660-1740 (Gaulton 1999:40). Event 659.

Pipe P30
514949: STEM. Modified into whistle. Event 663.

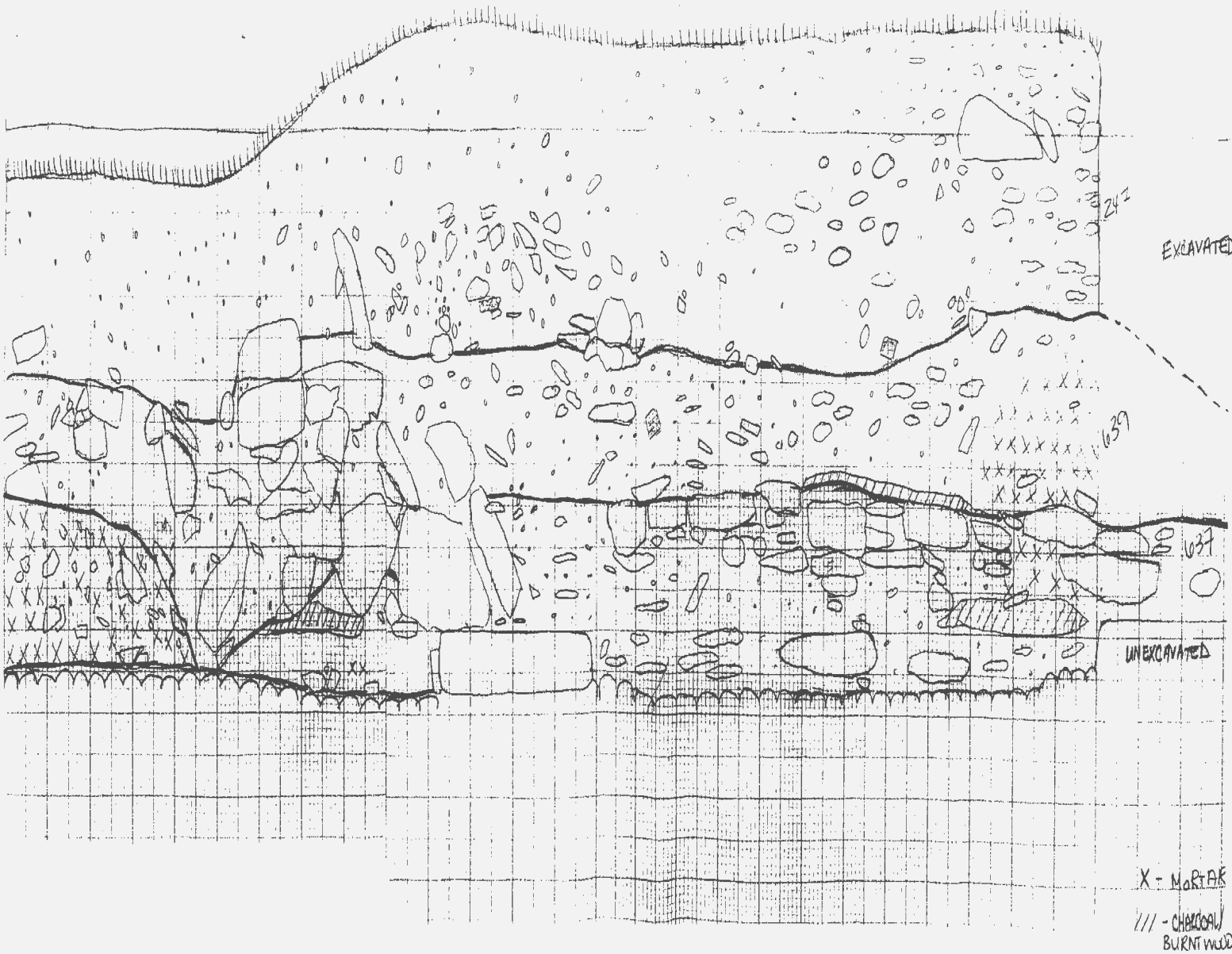
Pipe P31
516151: STEM. Brown stain on mouth piece. Event 663.

APPENDIX D: EXCAVTION PROFILES

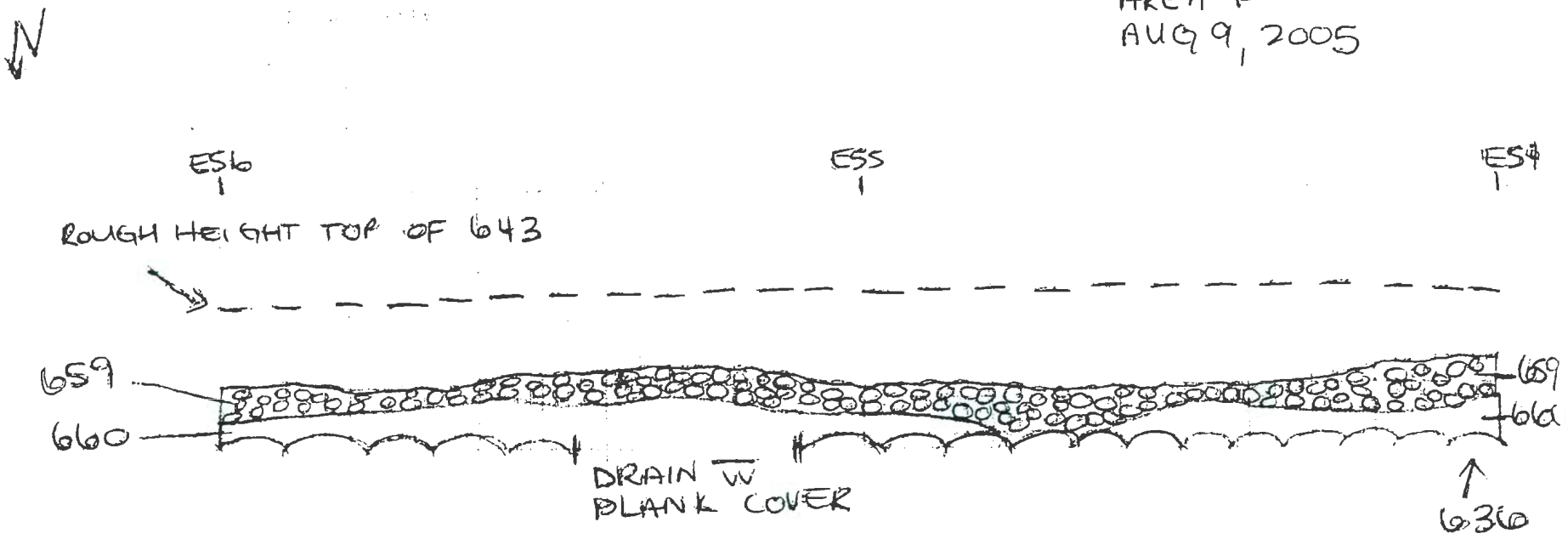
N

AREA F
SOUTH 4 PROFILE
LOOKING NORTH

E51 - S6 S4



SOUTH 3 PROFILE
LOOKING SOUTH
AREA F
AUG 9, 2005



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