A RURAL DRINKING ESTABLISHMENT IN FERRYLAND: LIFE IN EIGHTEENTH-CENTURY NEWFOUNDLAND

BARBARA LESKOVEC

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by

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Abstract

Archaeological investigations in Area E, Ferryland, Newfoundland uncovered the remains of an eighteenth-century earthfast timber-framed structure with a stone gable-ended chimney. The building measured roughly 4.6 m by 10.8 m (15' by 35') and consisted of a two-roomed layout. In later years, the building was renovated and a linhey was added. The artifact assemblage and historical record date the structure between ca.1697 and 1765.

Occupied year-round, the structure was employed as both a residence and tavern. Given the rural setting, tavern guests were served meals along with their drink, and overnight accommodation may have been afforded. The clientele comprised mostly fishers, who consumed more expensive wines and spirits, ales, beer, punch and tea.

The proprietor was of middling status able to purchase the fashionable items of the day and adopt the new ideologies. The material evidence also illustrates Ferryland's early trade connections with North Devon and Plymouth, and later shift to the ports of Bristol and/or Liverpool.

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1.1 Introduction

In 1620, George Calvert, later Lord Baltimore, established the English Colony of Avalon in Newfoundland. The following year, Captain Edward Wynne and a small group of men were sent to the island on Calvert's behalf to begin construction of a permanent settlement. They settled in Ferryland, one of the chief promontories upon the eastern coast of Newfoundland. Throughout the seventeenth century and well into the eighteenth century, Ferryland thrived as a major commercial fishing port welcoming numerous English fishing and sack ships each year sent to exploit the codfish resource.

Extensive archaeological excavations since the 1980s have yielded numerous features and hundreds of thousands of artifacts. During the 1993 season, archaeological investigations in Area E revealed the remains of an eighteenth-century structure. Further archaeological work was conducted in 2000 to expose the Area E structure further and recover any affiliated artifacts.

1.2 Research Objectives

The archaeological excavations at Ferryland offer a rare opportunity to observe how early settlers lived in a maritime community during the colonial period. Analysis of the material culture of the settlers provides a first-hand glimpse into Newfoundland's early social history. The objectives of this thesis are to determine a date of occupation for the structure in Area E, provide a physical description of the building, determine the function of the building, learn about the occupants and their activities, and learn about eighteenth-century life in Ferryland.

Chapter Two
The Setting

2.1 Geographic Setting

Ferryland, latitude 47°02' N and longitude 52°53' W, is situated on the Avalon Peninsula, approximately 80 kilometres south of St. John's Newfoundland (Figure 1.1). Nestled on the eastern coast, locally known as the Southern Shore, the town of Ferryland consists of a strip of mainland, a peninsula connected by a narrow isthmus and stretches of cobble beaches (Figure 1.2). The large mass of land at the tip of the peninsula, known as Ferryland Head, is connected to the isthmus by a hill that slopes gently to the southeast and is referred to as The Downs. A sheltered harbour known as The Pool lies on the northern side of the isthmus. The mainland to the west contains a steep ascending hill nicknamed The Gaze and, to the north, a large flat piece of land known as Coldeast Point. A series of islands lie to the north of Ferryland Head; the two largest, Buoy's Island and Goose Island, contain remnants of eighteenth-century fortifications. Several small rocky islands extend from Coldeast Point, the largest being Ship Island. As these islands are a part of a treacherous chain of rocks and reefs, the only entrance to Ferryland by water lies between Ferryland Head and Buoy's Island. To the south of the isthmus lies Crow Island.

2.2 Climate

Moderated by the Atlantic Ocean, Ferryland's climate is relatively mild. The summers are short with cooler temperatures; the average temperature during July ranges between 13°C and 16°C (Heringa 1981:9). From December to February the average temperatures are between -4°C and 2°C (Heringa 1981:10). Precipitation is heavy during the summer months and increases in the autumn; snowfall is greatest from the end of December to early April. Cloud cover and fog are

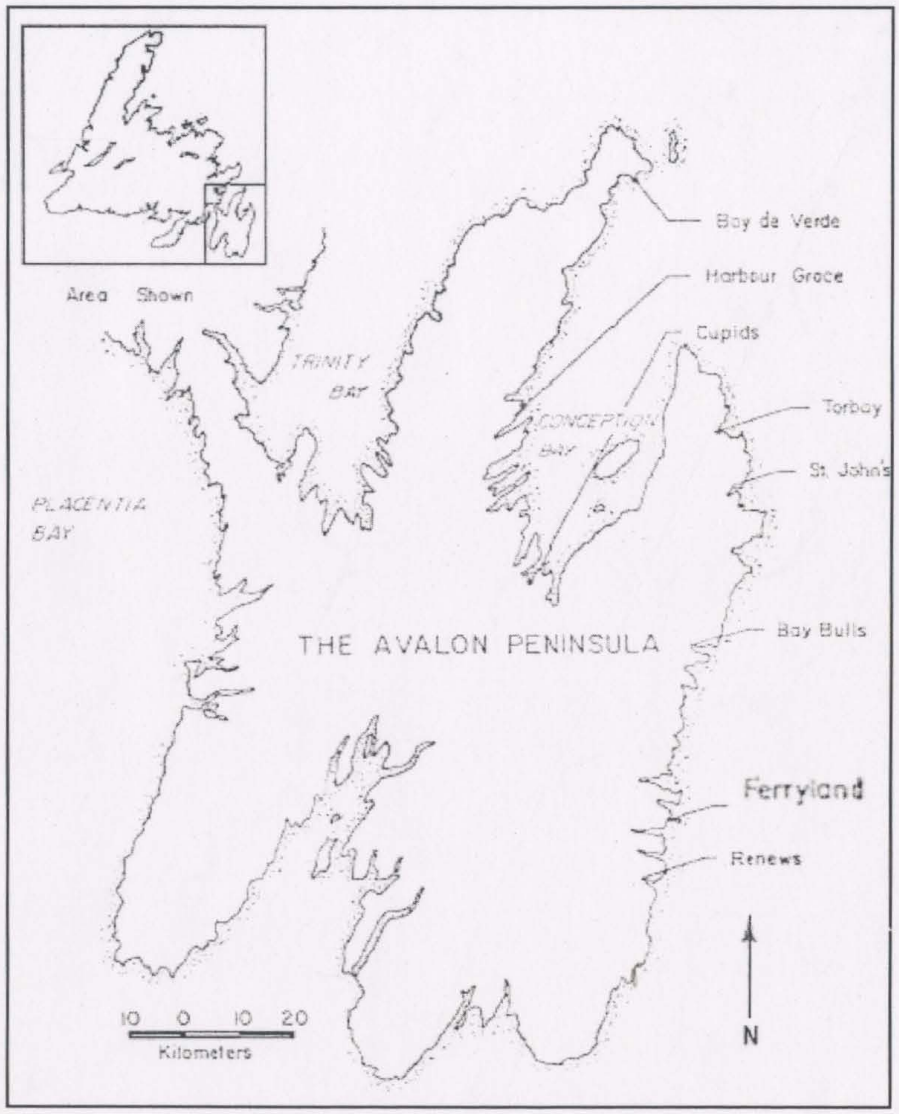

Figure 1.1. The Location of Ferryland on the Avalon Peninsula, Newfoundland (modified from Pope 1986:2).

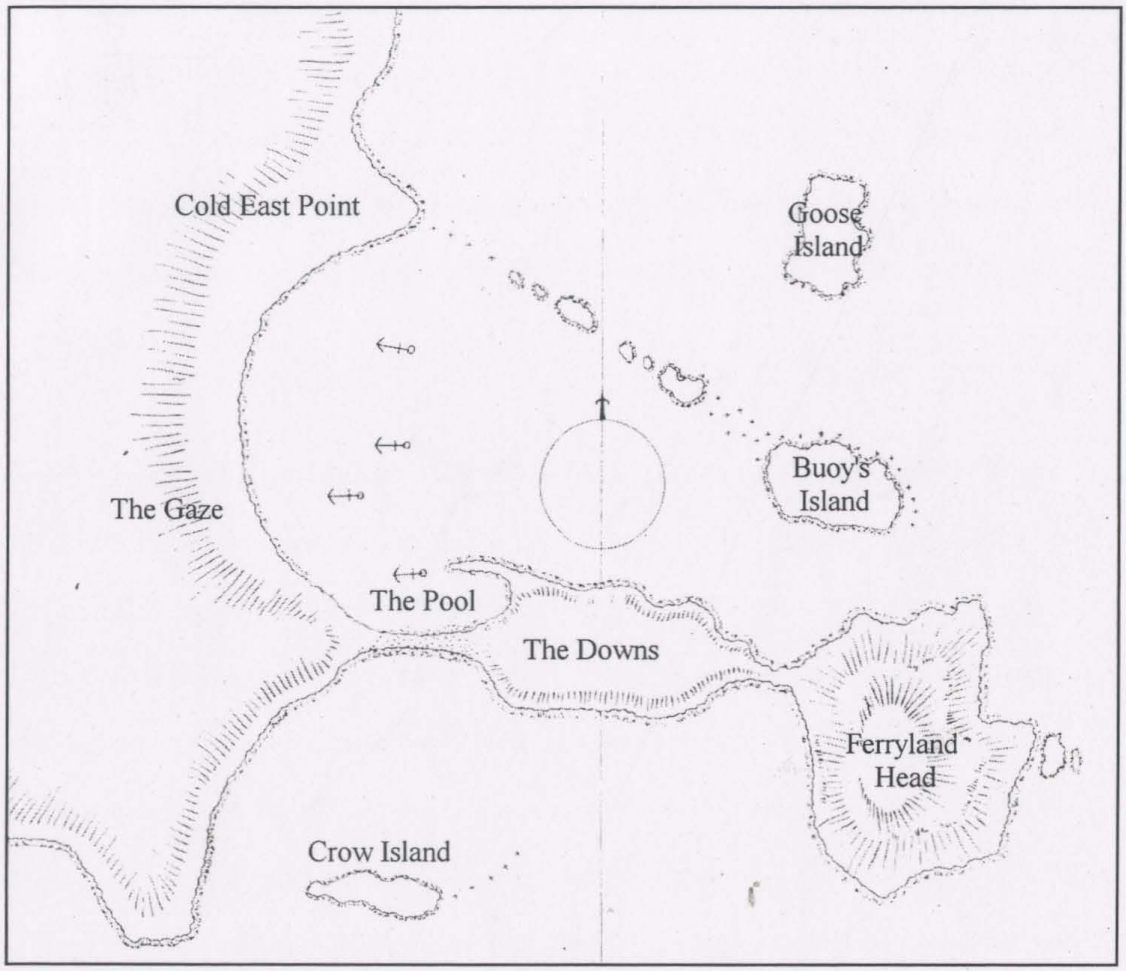

Figure 1.2. Ferryland. Revised from plan by C. Pettigraw, Library and Archives Canada, NMC 000036.

also prevalent on the peninsula.

2.3 Geophysical Setting

The island of Newfoundland was almost entirely covered by ice sheets during the Late Wisconsin glaciation (Heringa 1981:12). The final deglaciation of the Avalon Peninsula began only prior to 10,100 ± 250 B.P. and resulted in soils that are relatively young and generally shallow (Catto 1998; Mannion 2000a:3). Most soils are coarse to moderately coarse in texture, stony, acidic to extremely acidic and low in fertility allowing for only a simple ecosystem (Heringa 1981:6; Mednis 1981:218-250).

Geologically, Ferryland is composed of four formations, the Ferryland Head Formation, the Gibbett Hill Formation and the Cappahayden Formation, all belonging to the Signal Hill Formation Group, and the Renews Head Formation, which belongs to the St. John's Formation Group (Geological Survey 1988). The Ferryland Head Formation consists of a thin to medium bedded grey sandstone with minor conglomerates. The Gibbett Hill Formation is a thickly bedded, light grey sandstone and locally, thinly bedded, greenish grey to red sandstone with siltstone and tuff conglomerates. The Cappahayden Formation is a laminated grey siltstone and the Renews Head Formation is a thin, lenticular bedded, dark grey sandstone with minor shale.

2.4 Wildlife

The island of Newfoundland is home to fourteen indigenous mammals which include the caribou (*Rangifer tarandus*), the lynx (*Lynx canadensis*), the red fox (*Vulpes vulpes*) and the beaver (*Castor canadensis*). The island is also the nesting site for numerous birds such as the Common

Murre (*Uria aalge*), Herring Gull (*Larus argentatus*), Common Tern (*Sterna hirundo*), Arctic Tern (*Sterna paradisaea*), Razorbill (*Alca torda*), Black Guillemot (*Cepphus grylie*) and Atlantic Puffin (*Fratercula arctica*) (National Geographic Society 1988). The waters off the coast are inhabited by a variety of marine animals. Species of fish include the Atlantic Cod (*Gadus morhua*), Atlantic Halibut (*Hippoglossus hippoglossus*) and Haddock (*Melanogrammus aeglefinus*). Seals include the Grey (*Halichoerus grypus*), Harbour (*Phoca vitulina*), Harp (*Phoca groenlandica*) and Hooded (*Cystophora cristata*). Each year the Harp and Hooded seals migrate southwards along the east coast of Newfoundland to whelp, mate and moult (Banfield 1974).

Chapter Three
Historical Background

3.1 Introduction

This chapter outlines the history of Newfoundland during the eighteenth century, with particular attention to the town of Ferryland. Themes covered include military battles, the judicial system, the fishery, trade, demographics and social structure. Both primary and secondary sources were used to establish the history.

3.2 Preamble

In 1689 England declared war on France. Across the Atlantic, on the island of Newfoundland, the English struck first by attacking the French fortified town of Placentia in December of that year. An English privateer by the name of Captain Williamson seized the settlement, imprisoned its governor and inhabitants, and went on to load his ship with plunder (Hawkins 1691). The French retaliated with two minor raids in 1690 and larger attacks four years later (Hawkins 1691; Davis 1695). In 1694, hearing news of a pending French attack from English prisoners that had escaped from captivity in Placentia, Captain William Holman, an English privateer and Commander of the *William and Mary*, immediately restored two rundown forts in Ferryland and constructed both a breastwork and a new fort to protect the town (Anonymous ca.1694; Davis 1695). Holman removed 30 canons from his own ship and others in the harbour, and set them up on the forts; twelve of which were placed on Holman's Fort (Davis 1695; Prowse 2002:213). On 31 August 1694, the French attempted an attack on Ferryland, but were defeated by Holman and the inhabitants (Davis 1695; Williams 1987:28). Unbeknownst to the residents worse was yet to come.

In 1696, Pierre Le Moyne d'Iberville was sent to Newfoundland with a commission from France to eradicate the prosperous English fishery and all English settlements on the island. On 21 September, under the command of the governor of Placentia, Jacques-François de Mombetonde de Brouillan, seven French ships of war and two fire ships sailed into Ferryland harbour (Clappe 1697). Landing numerous men, seven hundred according to an eyewitness (Clappe 1697), the French seized the colony and demanded that the residents take an oath of fidelity to the French king. The inhabitants of Ferryland refused, impelling the French to raze all infrastructure in the colony and take 150 of the residents captive (Clappe 1697). Some of those captured were imprisoned at Placentia, while others were returned to Appledore, near Bideford, England (Tuck et al. 1999:152). Later that year, on the 10 November, D'Iberville with a mixed force of 124 native Frenchmen and First Nations people returned to the demolished settlement to wait for de Brouillan and his troops (Williams 1987:39; Murray 1955:54). By the end of the month, they set off together to attack additional English settlements to the north (Williams 1987:40-41).

Within a year Ferryland was reinhabited; The Pool was reoccupied and settlement also shifted further inland (Figure 3.1; Tuck 1996a:23; Stephen Mills, personal communication 2005). At this time, inhabitants may have also resided on Buoy's Island (Lilly 1711).

3.3 The Eighteenth Century

3.3.1 Battles and Fortifications

Despite the devastating French attack of 1696, an adequate defence system was still not developed in Ferryland by the beginning of the eighteenth century. During the winter of 1705 the French launched another attack on the island of Newfoundland. Although Major Lloyd, the

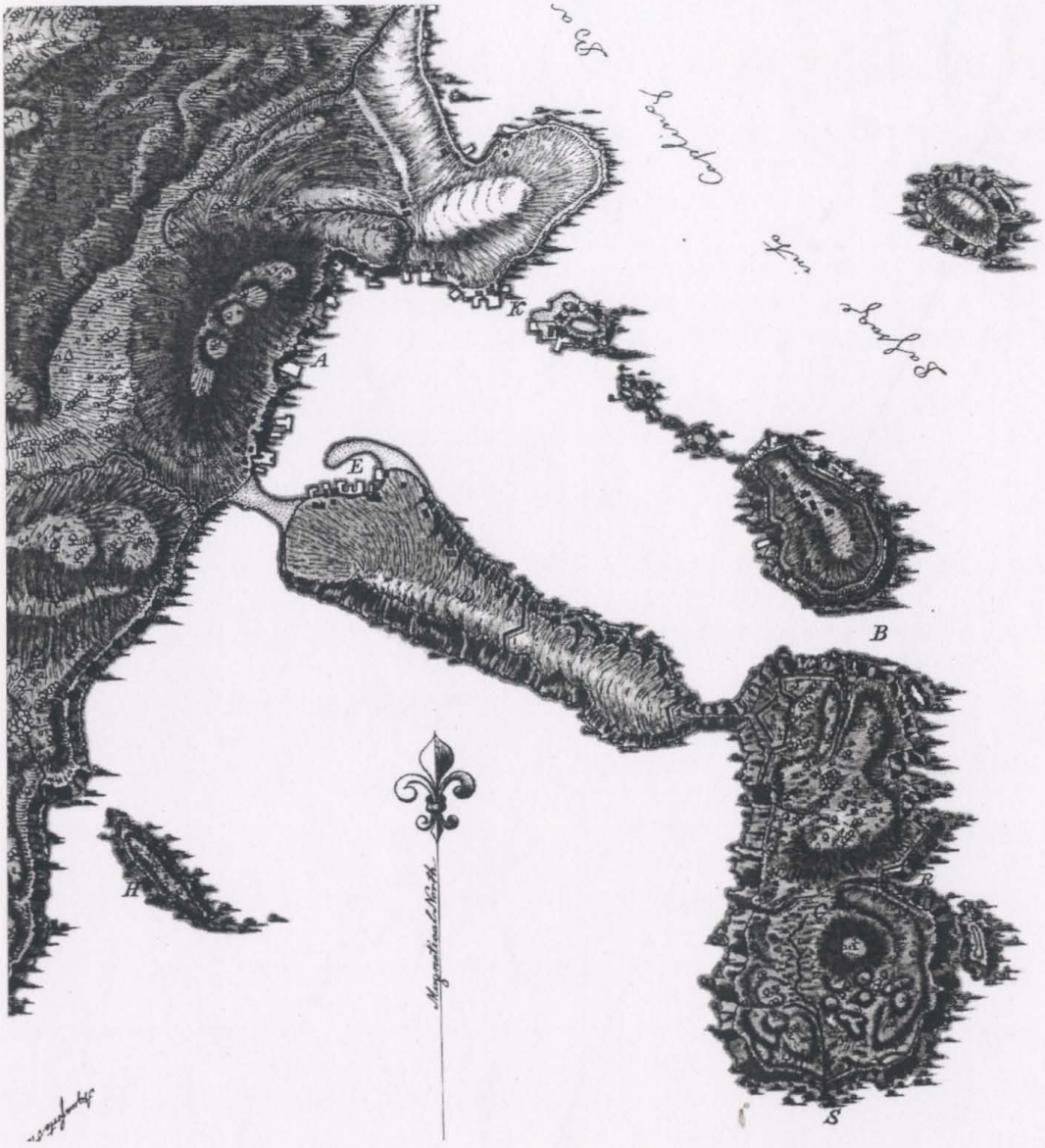

Figure 3.1. *A Report of Ferryland Harbour in the Island of Newfoundland* in 1762. The town of Ferryland is labelled as A, the entrance into the harbour as B, Ferryland Head as C, Ferryland Downs as D, Buoy's Island as E, Goose Island as F, Crow's Island as H and the passage for small boats as K. Detail of map by J.F.W. Desbarres, Library Archives Canada, NMC 000035.

commander of Fort William in St. John's, "behaved with great vigour, personally leading out detachments of troops to protect Ferryland, Harbour Grace, and other points threatened by the French and Indians" (Prowse 2002:235, 246), on 5 March under the leadership of Daniel d'Auger de Subercase, the new governor of Placentia, the French still

> ...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... and left behind the Canadians [native Frenchmen] and Indians to make good their retreat, who joined them soon after committing the like barbarity as they had done at St. John's all along as they went as Kitty Vitty, Petty Harbour, Bay of Bulls, and Fair Ellen &c (Campbell 1705).

Upon arriving at Ferryland, the French bombarded the town with cannonballs and summoned the inhabitants to capitulate (Prowse 2002:266). The residents initially refused, but upon seeing the French ships preparing for battle, they quickly "abandoned their posts, opened the door...and surrendered at discretion" (cited in Prowse 2002:266). Ferryland was once again substantially damaged, if not fully destroyed (Roope 1705; Sampson 1705). Although the incurred loss of £25,000 as sworn by the planters in Ferryland and Bay Bulls was about half that incurred in St. John's and Quidi Vidi, the damage inflicted upon the settlement was extensive (Prowse 2002:246). The settlement was quicky reestablished, but enemy threats still lingered. Later that year a party of six First Nations people returned to Ferryland and plundered several houses (Moody 1706). In 1708, after successfully taking over St. John's, Joseph de St. Ovide, Monbeton de Brouillan sent a raiding party under the command of Captain Larond to attack Ferryland (Keen 1708; Cumings 1715; Prowse 2002:249). The mission was, however, unsuccessful.

With the continuous treat of French attacks during the eighteenth century, West Country merchants appealed to the British government for the protection of vital fishing centres. Following the 1705 French attack, petitions were made to protect the Ferryland fishing harbour

by means of a formal fortification or a stationary warship (Poremble et al.1705; Whitehurd et al. 1705; Anonymous 1705; Strange et al. 1706; Benger et al. 1707; Lowe et al. 1708; Bound 1710; Chifton 1710; Seward et al. 1739). The British government responded by establishing a small militia on Buoy's Island the following year (Table 3.1). Additionally, in 1711 a British engineer by the name of Christian Lilly was sent to Newfoundland to determine the most suitable spot for a fortification (Lilly 1711). Lilly chose Ferryland stating that the most ideal location was on the brow of The Downs. Understandably, Lilly's comments fell on deaf ears, as in 1713 the Treaty of Utrecht was signed and the island of Newfoundland declared to belong to Great Britain. Nevertheless, the French were granted fishing privileges between Bonavista, in the northeast, and Point Riche, on the west coast.

In 1743 the inhabitants of Ferryland once again petitioned the governor of Newfoundland, at that time Captain Thomas Smith, for funds to fortify the settlement (Smallwood 1984:56). Five hundred pounds were granted and Smith began to construct formal fortifications on Buoy's Island. Six cannons were placed on the island, and a powder magazine and barracks were erected (Carter 1776; Smallwood 1984:56). In the next six years, a third battery, additional barracks, officers' quarters, a carpenter shop, a smithy and a bomb-proof powder magazine were constructed, and parapets were erected around three sides of the island (Figure 3.2). Supplementary cannons were added in later years. Buoy's Island was garrisoned by the Royal Artillery and the 45th Regiment until orders were received by 1778 to abandon the post (Table 3.2). The following year a single gunner returned to Buoy's Island, but left shortly thereafter and the island was left to the sole use of Robert Carter, a Ferryland merchant, who in 1754 was granted permission to erect fishing flakes on it (Edwards 1779a, 1779b; Smallwood 1984:56;

Table 3.1. Names of Captains, Lieutenants and Ensigns of the Militia of Newfoundland at Ferryland.

Date of Commissions	Captains	Lieutenants	Ensigns
19 September, 1706	William Short	John Bricker?	Richard Clog
5 October, 1709	-	Richard Roberts (1st) Henry Rex (2nd)	Thomas Deble (1st) Anthony White (2nd)

Notes: The militia was stationed on Buoy's Island.

Sources:

1706 Underdown 1706
1709 Taylor 1709

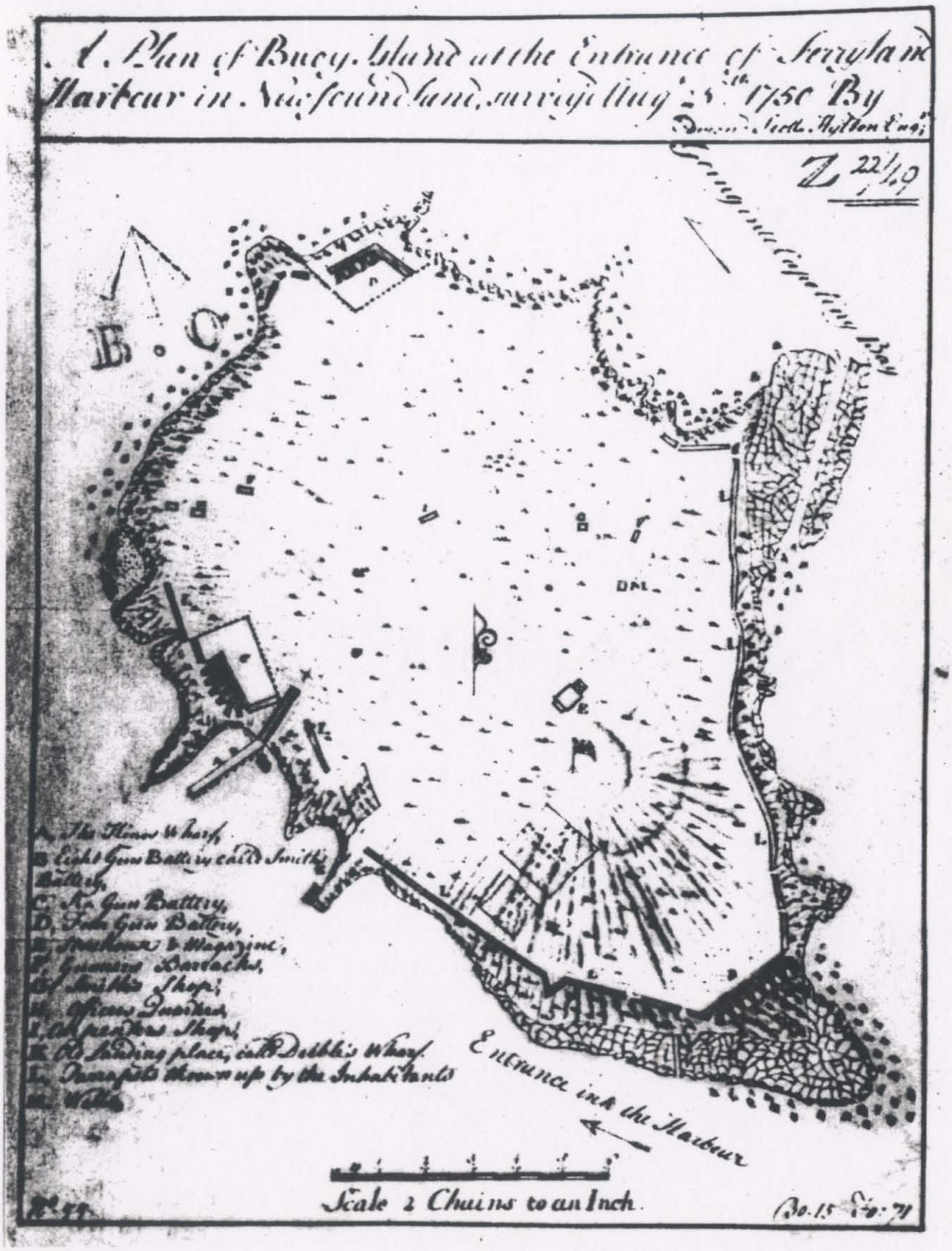

Figure 3.2. *A Plan of Buoy Island at the Entrance of Ferryland Harbour in Newfoundland.* Surveyed 26 August 1750. By this time, gun batteries, parapets, a storehouse, a magazine, a garrison's barracks, an officers' barracks and a smithy shop stood on the island. Detail of map by Edmond Scott Hylton, Library Archives Canada, NMC 088077.

Table 3.2. An Account of the Garrison Stationed at Buoy's Island, Ferryland For Select Years During the Eighteenth Century.

Year	Royal Regiment of Artillery	45th Regiment
1750	1 corporal and 1 gunner	
1751	1 corporal and 1 gunner	
1753	1 corporal and 1 gunner	
1754	1 corporal and 1 gunner	
1757	1 gunner	
1758	1 gunner	
1759	1 gunner	
1760	1 gunner	
1763	1 corporal and 5 privates	1 lieutenant, 1 sergeant, 1 corporal, 1 drummer and 12 privates
1764	1 bombardier	1 ensign, 1 corporal, 1 drummer and 11 men
1779	1 gunner	

Notes:

In 1762 the Royal Regiment of Artillery was present at Buoy's Island.

In 1764 the bombardier was from Captain Dover's Company of the 2nd Battalion of the Royal Regiment of Artillery.

No troops were present in 1778.

The fortifications at Buoy's Island were abandoned in 1784.

Sources:

1750	Drake 1750b	1759	Ross 1759	1764	Anonymous 1764
1751	Bradestreet 1751	1760	Ross 1760a	1778	Hay 1778
1753	Order 1753		Ross 1760b	1779	Edwards 1779a
1754	Aldridge 1754	1762	Dover 1762		Edwards 1779b
1757	Edwards 1757	1763	Bishop 1763	1784	Smallwood 1984:56
1758	Rogers 1758		Dover 1763		

Prowse 2002:293; Webber 1984:91).

In 1756 the Seven Years' War erupted in Europe. Six years later the fighting spread to Newfoundland when French troops were sent to the island to destroy English settlements and impair the British fishery (Hearn 1762). Under the command of Count D'Haussonville, the French government sent 4 ships of war, 32 officers, and nearly 700 troops to take over the capital of Newfoundland (Prowse 2002:305). On 27 June 1762, St. John's fell to the French and a small convoy of French troops was sent to attack Ferryland. Upon hearing the news, Captain Graves, the Governor of Newfoundland at that time, ordered Peter Burne, master of HMS *Syren*, to land a dispatch of marines at Ferryland to man the sixteen guns on Buoy's Island, and then proceed to Halifax with the news of the attack (Prowse 2002:306-307; Webber 1984:74). Although Captain Douglas, R.N., of HMS *Syren*, was assigned to look after the harbour, it was, in fact, Robert Carter who took charge and gathered the residents of Ferryland onto Buoy's Island, collected provisions and outfitted 100 shallops for the pending fight (Smallwood 1984:56). By this time, Ferryland was well fortified and together with Carter's small fleet inflicted severe damage to two adversarial ships and the French retreated. St. John's was eventually recaptured by the British and on 10 February 1763 the Treaty of Paris was signed ending the Seven Years' War. Under this treaty the French were granted permission to continue fishing on the parts of Newfoundland specified in the Treaty of Utrecht, in addition to acquiring the rights to the islands of St. Pierre and Miquelon.

In 1776 the fortifications at Ferryland were repaired and expanded. The cannons on Buoy's Island were replaced and a cannon was mounted on Goose Island (Bridmill 1776; Carter 1776;

Smallwood 1984:56). The threat of another French attack arose again around 1780 and a volunteer corps of 400 men was sent to the island (Edwards 1780). No attacks were carried out and the fortifications at Ferryland were abandoned in 1784 (Smallwood 1984:56).

3.3.2 Government and Justice

3.3.2.i Establishing a Judicial System and a Government

At the close of the seventeenth century, the judicial system in Newfoundland was rudimentary. The Act to Encourage Trade to Newfoundland of 1699, popularly known as King William's Act, reaffirmed the customary regulation that the master of the first ship to arrive in a Newfoundland harbour after March 25 was to act as fishing admiral (Bannister 2001:168). The second and third masters were assigned the titles of vice and rear admirals respectively (refer to Table 3.3). Following appointment, fishing admirals were to enforce regulations stipulated in King William's Act, such as restrictions against stealing or damaging flakes and stages, and selling alcohol on Sundays (Bannister 2001:168; Prowse 2002:233). Early colonial correspondence contain complaints from the inhabitants of Newfoundland against the admirals and their negligence, and sometimes corruption, although rare, in their administrative duties (Prior 1706; Bannister 2001:199). Further examination of the archival data, however, reveals a different picture. With the rise of the bank fishery in the first quarter of the eighteenth century, fishing admirals were often absent from harbours for at a least a month, and thus unable to hear cases until early autumn, after cod shipments were sent and merchants' accounts were settled (Bannister 2003:57-58). Furthermore, fishing admirals were bound by King William's Act, an act that did not prescribe any specific penalties or punishments for offenders, nor did it provide "specific instructions to issue warrants, take depositions, or bind persons in recognizance" (Bannister

Table 3.3. Names of Admirals of Ferryland Harbour for Select Years.

Year	Name	Position	Origin
	John Simons	admiral	Dartmouth
1701	George Cornish	vice admiral	Bideford
	Thomas Burley	rear admiral	Plymouth
1715	Rich Purback	admiral	Southampton
1787	Gregory Hawson	admiral	-
	Thomas Anquetil	vice admiral	-
	Richard Teede	rear admiral	-

Notes: Admiral was the master of the first British ship to enter a harbour.

Vice admiral was the master of the second British ship to enter a harbour.

Rear admiral was the master of the third British ship to enter a harbour.

Sources:

1701 Graydon et al. 1701
1715 Anonymous 1715
1787 Bannister 2001:198

2001:170). In short, the judicial control of fishing admirals was heavily circumscribed by the bank fishery and the King William's Act.

Following the departure of the fishing and naval ships every autumn, no legal authority remained on the island of Newfoundland. The preponderance of single men, mixed with a lack of judicial administrators, resulted in social problems such as drunkenness, theft, and occasionally mob rule, rape and murder (Handcock 1989:87). In Ferryland, faction fighting and hurling matches were known to have occurred on The Downs, but offences against property were rare, unlike elsewhere (English 1998:479-480, 483). In 1723, a committee of St. John's merchant planters upset with the lack of local authority formed their own self-governing court to protect their property (Pope 2004:429). Although unacceptable to the Board of Trade, their actions stressed the need for permanent magistrates on the island and in 1729 the first Governor and Commander-in-Chief of Newfoundland was appointed. The island was divided into six districts and justices of peace and constables appointed to each. Three justices of peace and two constables were assigned to the Ferryland District (Table 3.4). Subsequent magistrates were appointed in later years. Although justices of peace were solely responsible for breaches of peace and civil affaires, and fishing admirals were to oversee matters pertaining to the fishery as outlined in King William's Act, a battle for legal control still ensued after 1729 to determine what type of judicial institution would govern Newfoundland (Bannister 2003:65; Anonymous 1753). During this conflict, a third party emerged - the Royal Navy- and provided supplemental legal administration (Bannister 2003:65). By the mid-1760s the island of Newfoundland was divided into five maritime zones overseen by naval officers and nine districts governed by civil magistrates (Bannister 2001:186). As the naval government secured legal supremacy, the judicial stature of the fishing admirals was further

Notes: In 1729 three justices of peace were designated for Toad's Cove, Ferryland and Fermouse. The constables were appointed to Ferryland.

In 1731 the magistrates were appointed to the Ferryland district. John Keates may have been the only one to reside at Ferryland.

Sources:

1729 Anonymous 1729
Osbourne 1729
1731 Clenton 1731
1732 Falkingsham 1732a
1749 Rodney 1749
1750 Drake 1750a
1751 Keen and Gill 1751
1752 Keen et al. 1752
1769 Prowse 2002:334
1776 Carter 1776
1787 Bannister 2001:198
1790 Smallwood 1984:57

Table 3.4. Names of Justices of Peace and Constables for Ferryland, 1729-1790.

Year	Name	Position
1729	John Ludwigg	justice of peace
	John Keates	justice of peace
	James Hutchens	justice of peace
	William Pidgeon	constable
	Mr. Rix	constable
1731	John Ludwigg	justice of peace
	John Keates	justice of peace
	James Hutchens	justice of peace
	John Jenkins	constable?
	William Jackson	constable?
1732	John Kates	justice of peace
	Mr. Dalton	constable
	Mr. Packer	constable
1749	John Benger	justice of peace
	James Hutchins	justice of peace
	Richard Ball	justice of peace
1750	John Benger	justice of peace
	James Hutchins	justice of peace
	Richard Ball	justice of peace
	William Land	justice of peace
	Robert Carter	justice of peace
1751	John Benger	keeper of the rolls
	Richard Ball	justice of peace
	William Land	justice of peace
	Robert Carter	justice of peace
1752	John Benger	keeper of the rolls
	Richard Ball	justice of peace
	William Land	justice of peace
	Robert Carter	justice of peace
1769	Robert Carter	justice of peace
	Mr. Weston	justice of peace
1776	Robert Carter	justice of peace
1787	Robert Carter	justice of peace
1790	Henry Sweetland	justice of peace

diminished. The Royal Navy continued to function as a judiciary into the next century until it was replaced by the governor and local magistrates (Bannister 2003:177-180, 2001:190).

3.3.2.ii Courts

At the beginning of the eighteenth century, admirals were responsible for holding courts in their respective harbours to overhear matters concerning the fishery. Their courts were sporadic, if at all held. To alleviate the fishing admirals' negligence, commanders of the Royal Navy began to hold general courts on the island. In 1711, Captain Josias Crowe, R.N., presided over the first known legislative council in St. John's (Bannister 2001:172). Attended by the masters of fishing ships, merchants and leading residents, these naval courts were intended to deal with petty civil crimes. For example, Mrs. Benger of Ferryland appeared before the court in 1712 concerning a property dispute (Prowse 2002:272).

To replace the commodores' courts, the first governor of Newfoundland, appointed to the island in 1729, established a central court in St. John's. Surrogate courts were set up in the outport communities overseen by naval officers and local justices of the peace. Robert Carter was appointed as the judge of the surrogate court for the Ferryland District in 1749 (Smallwood 1984:58). The power of these courts, like the naval courts, was solely limited to civil justice, and persons guilty of felonies could still only be tried in England before the Assize commissions of Oyer and Terminer and Gaol Delivery (Bannister 2001:168). A local court of Oyer and Terminer was established in St. John's by mid-century (Bannister 2001:186).

A formal court system was eventually created in Newfoundland diminishing the responsibilities and control of the naval administration. Under the Judicature Act of 1791, the Court of Civil Jurisdiction of our Lord the King was established in St. John's (Prowse 2002:358). Presided by a chief justice, this court resided for one year. The second Judicature Act of 1792 established the Supreme Court of Judicature for the island of Newfoundland and adjudicated both civil and criminal cases in addition to officially legalizing the surrogate courts in the outports (Bannister 2001:190; Prowse 2002:359).

3.3.2.iii Prisons

Upon arriving to Newfoundland in 1729 and finding no functional jail nor house to act as a prison, Captain Henry Osbourne, the first governor of Newfoundland and Commander of the HMS *Squirrel*, petitioned for funds to establish prisons in St. John's and Ferryland; the remaining districts were to rely on stocks to punish petty crimes (Bannister 2001:178). For Ferryland's judicial needs, Osbourne levied a tax of one shilling and six pence for one year agreed upon by the town's inhabitants and the justices of peace (Holdsworth et al. 1730). Unable to secure the exact amount needed for a proper prison in Ferryland though, Osbourne was impelled to erect several pairs of stocks to punish petty offenders (Osbourne 1730; Holdsworth et al. 1730). In 1732, when Commander Edward Falkingsham arrived in Newfoundland and discovered that only the St. John's prison was built, he immediately ordered three additional jailhouses to be constructed, one of which was to be in Ferryland (Falkingsham 1732a, 1732b). Again the funds could not be collected, and no proper prison existed in the Ferryland until the nineteenth century (Smallwood 1984:58).

3.3.3 The Fishery

3.3.3.i The Dry Fishery and Sack Ships

Every summer during the seventeenth century, fishing ships backed by West Country venture capitalists arrived at Newfoundland to catch and process cod for foreign markets. During the season, the fishing ships were generally moored in the harbour and small shallops, carrying three persons each, were employed to fish near the shore (Matthews 1987: Plate 21; Handcock 1989:24). Once full, the shallops returned to shore and the catches were cured and dried on either cobble beaches, flakes or rances (Figures 3.3 and 3.4). During the eighteenth century, the number of fishing ships arriving in Newfoundland was relatively stable, with the lowest numbers occurring at wartimes (Handcock 1989:82). For example, at Ferryland the counts were quite low during the Seven Years' War (1756-1763) and dwindled again during the American Revolution (1775-1783) (Figure 3.5).

During the early seventeenth century, London and Bristol merchants began to send sack ships to Newfoundland primarily intended to purchase codfish, which was later traded in European ports for luxury commodities such as wine, fruit and oil (Crowley 1989:316; Pope 2004:104). As the migratory fishery flourished, a greater quantity of supplies was needed each and every year, and West Country merchants also began to send specialized merchant vessels to exchange provisions for codfish, and the term "sack ship" became generic for supply ship (Crowley 1989:316).

3.3.3.ii The Bank Fishery

In the first quarter of the eighteenth century, various nautical innovations, overcrowded inshore waters and a series of bad fishing years led to the development of the bank fishery (Innis

Figure 3.3. Cod Drying on Cobbles in Ferryland Harbour in 1913. Photograph by Edith S. Watson, Library Archives Canada, E003525413.

Figure 3.4. Cod Drying on Rances in Ferryland in 1913. Rances are rows of boughs placed on the beach. Photograph by Edith S. Watson, Library Archives Canada, PA-198405.

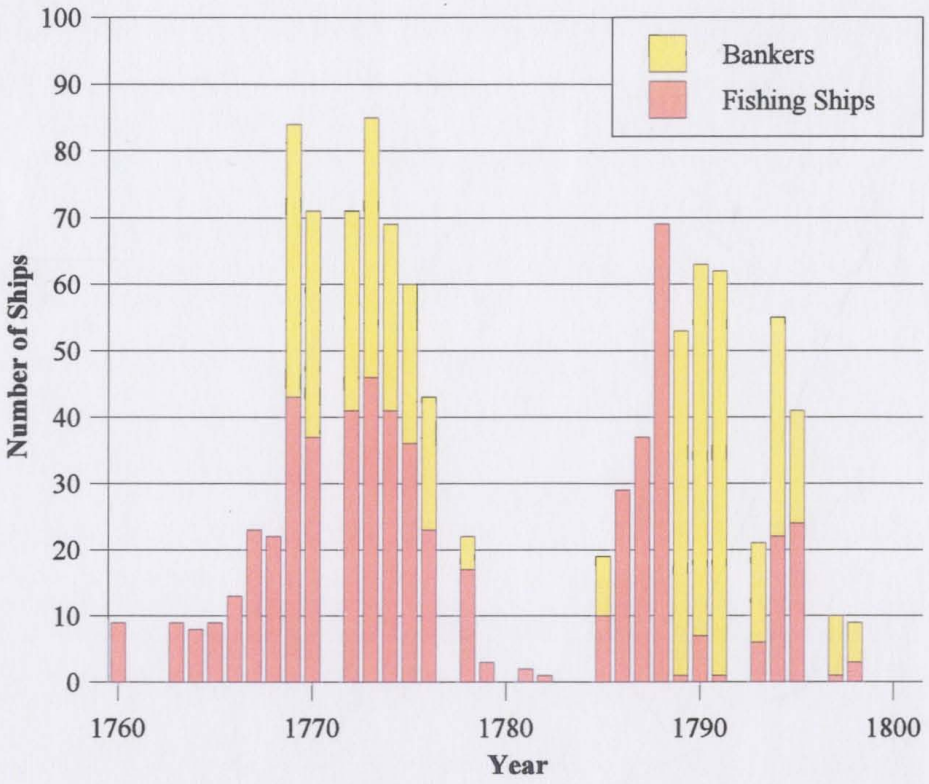

Figure 3.5. Frequency of Fishing Ships and Bankers Arriving at Ferryland, 1760-1800.

Notes: Prior to 1760, fishing ships and bankers were enumerated as a single category.

Years 1769, 1770, 1772, 1773, 1774, 1775, 1776, 1778, 1790 and 1795 include Renews and Fermeuse. Year 1789 includes Renews, Fermeuse and Cape Broyle.

Sources:

1760	Census 1760	1773	Census 1773	1788	Census 1788
1763	Census 1763	1774	Census 1774	1789	Census 1789
1764	Census 1764	1775	Census 1775	1790	Census 1790
1765	Census 1765	1776	Census 1776	1791	Census 1791
1766	Census 1766	1778	Census 1778	1792	Census 1792
1767	Census 1767	1779	Census 1779	1793	Census 1793
1768	Census 1768	1781	Census 1781	1794	Census 1794
1769	Census 1769	1782	Census 1782	1795	Census 1795
1770	Census 1770	1785	Census 1785	1797	Census 1797
1771	Census 1771	1786	Census 1786	1798	Census 1798
1772	Census 1772	1787	Census 1787		

1954:149-150; Nemec 1973:20; Mannion 1990:6). Fishing was now done directly from bankers, small ships about 30 to 80 tons, offshore in the Grand Banks for a month to five weeks and the catches salted aboard (Nemec 1973:20). Known as green or wet curing, this method was easier and less labour intensive, but the fish would spoil quicker (Janzen 1999:29-30). Green cured cod was favoured in the northern European countries, whereas dried cod was preferred by countries with warmer climates such as southern France, Spain and Portugal. Market demand dictated the method of curing and as Newfoundland cod stocks were regularly traded in southern European countries, the traditional dry cured method was preferred (Table 3.5; Matthews 1987:Plate 23).

The revival of inshore cod stocks during the 1730s resulted in the resurrection of the dry fishery and a decrease in the number of ships fishing in the Grand Banks (Head 1976:142). In 1786, to promote the bank fishery, bounty incentives were introduced: the first 25 British vessels that made 2 trips to the Banks were given a bounty of £40 each and the next 100 ships were given £20 each (Innis 1954:209). These incentives reinvested short-lived interest in the bank fishery around Ferryland as elsewhere on the island (Handcock 1984:24), and numbers again began to diminish by the turn of the century (Figure 3.5; Table 3.6).

3.3.3.iii The Byeboat keeper Industry

Amongst the swarms of fishermen that crowded the ships' hauls during the transatlantic journey each season were a group of people who migrated annually between England and Newfoundland as paying or working passengers (Handcock 1989:25). Upon reaching Newfoundland, these passengers, later known as byeboat keepers, fished independently inshore and sold their catches to the fishing and sack ships (Pope 2004:41-42; Handcock 1989:25). Ship owners promoted the

Table 3.5. Destination Ports of Ships in Ferryland, 1700-1708.

	1700a	1700b	1701a	1701b	1703	1708	Total
Spain	4		1	1	5		11
Portugal	1	4	3	6	2	1	17
Straits of Gibralter and the Mediterranean	2	7	3	3			15
Italy	1		1	1		1	4
England	1	1	1			2	5
America	1			1		2	4
Barbados				2			2
Total	10	12	9	14	7	6	58

Notes: Ports in Spain include Alicant, Barcelona, Cadiz, Malaga, S. Lucar, San Sebastian and Biscay.

Ports in Portugal include Lisbon and Fayal.

Ports in England include Barnstaple, Bideford and Dartmouth.

Sources:

1700a Fairbourne 1700
1700b Innis 1954:140
1701a Graydon 1701
1701b Graydon 1701b
1703 K.M.F. 4.68.23
1708 Mitchell 1708

Table 3.6. Codfish Catches Enumerated for Fishing Ships and Bankers in Ferryland, 1789-1798.

Catch	1789	1790	1791	1793	1794	1795	1797	1798
Fishing Ships'	16,288	24,900	2,600	600	-	-	1,300	100
Bankers'	54,900	51,440	31,800	11,000	32,000	10,900	5,700	3,600
Total	71,188	76,340	34,400	11,600	32,000	10,900	7,000	3,700

Notes: Prior to 1789, bankers' catches were enumerated under fishing ships' catches.

Sources:

1789 Census 1789
1790 Census 1790
1791 Census 1791
1793 Census 1793
1794 Census 1794
1795 Census 1795
1797 Census 1797
1798 Census 1798

byeboat keeper industry as they could secure profits from the seasonal passages of the adventurers, their crew and their boats (Handcock 1989:82; Crowley 1989:316). West County venture capitalists, on the other hand, opposed and discouraged the operation declaring the industry disadvantageous to the colonial fishery. West Country merchants argued that the small entrepreneurs were able to sell their fish cheaper because they did not invest capital in ships and supplies for the transatlantic journeys and upon their return to England each year, subsidized their income during the winter months by taking on additional jobs (Innis 1954:109; Webb 1999:6.1). In an attempt to impede the byeboat keeper industry, the British Government passed a series of legislation including the William III Act which stipulated that "masters of ships take every fifth man a green man" and "one fresh man in five" (cited in Prowse 2002:233). In other words, the fishing ships were obliged to take along, out of every five men, one that had never seen the sea before and one that had not made more than one voyage (Innis 1954:27). However, due to the lack of administrators to enforce the act, the regulations were not stringently followed and fishing admirals were reported smuggling paying passengers into Newfoundland well into the eighteenth century (Innis 1954:109).

The bye-boat industry in Newfoundland was relatively stable during the eighteenth century, until its sudden decline in the 1780s (Matthews 1987:Plate 25; Innis 1954:210). Various explanations exist for its downfall. First, trade with the American colonies was halted in 1776 creating a scarcity of goods in Newfoundland, and thus, driving up the cost of provisions (Innis 1954:210). The byeboat keepers were perhaps unable to absorb the increase in costs and, therefore, could not continue in the fishery. Second, the inundation of inferior quality codfish into the European market in the late 1780s caused prices to drop and many merchants, shipowners and boatmen

went bankrupt (Handcock 1989:82). Last, wartime conditions had serious impacts upon the migratory fishery. The Seven Years' War (1756-1763) and the American Revolution (1775-1783) decreased the number of fishing ships travelling to Newfoundland, thus limiting passage opportunities for byeboat keepers to the island (Handcock 1989:84). As a result of the decrease in the byeboat keeper industry and eventually the migratory fishery in the late eighteenth century, the Newfoundland-based resident fishery expanded (Handcock 1989:74-75). A similar pattern was observed in Ferryland (Figure 3.6; Table 3.7).

3.3.4 Trade

Sack ships carried supplies to Newfoundland in exchange for codfish, which was later traded in European ports for commodities such as wine, brandy, and salt (Anonymous 1789a and 1789b; Head 1976:112; Pope 1996:2). A majority of the commodities were bound for the English market, although a fraction was often re-exported to Newfoundland on English ships (Williams 1987:7). The Newfoundland trade was, therefore, essentially triangular and much of the material culture used by the migratory fishing ships, the byeboat keepers and the resident population was imported to the island (Pope 1989a:74, 1989b:13).

3.3.4.i Trade with England

At the end of the seventeenth century, England was the greatest supplier of goods to Newfoundland, yet in the following century, the British stronghold decreased, as the American colonies and Ireland gained importance in the provisions trade (Mannion 2000a; Matthews 1987: Plate 23; Head 1976:100). As a result, solely for the Newfoundland market British ports began to specialize in specific trade goods: Bristol almost exclusively exported glass bottles, window

Notes: Year 1710 includes Fermeuse, Brigus South, Isle of Spear and Toads Cove.

Years 1769, 1770, 1772, 1773, 1774, 1775, 1776, 1778, 1790 and 1795 include Renews and Fermeuse.

Year 1789 includes Renews, Fermeuse and Cape Broyle.

Sources:

1700	Census 1700a, 1700b
1701	Census 1701
1710	Census 1710
1715	Census 1715
1720	Census 1720
1722	Census 1722
1723	Census 1723
1724	Census 1724
1725	Census 1725
1726	Census 1726
1727	Census 1727
1729	Census 1729
1730	Census 1730
1731	Census 1731
1732	Census 1732
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1739	Census 1739
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1741	Census 1741
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1772	Census 1772
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1774	Census 1774
1775	Census 1775
1776	Census 1776
1778	Census 1778
1779	Census 1779
1782	Census 1782
1785	Census 1785
1786	Census 1786
1787	Census 1787
1788	Census 1788
1789	Census 1789
1790	Census 1790
1791	Census 1791
1793	Census 1793
1794	Census 1794
1795	Census 1795
1797	Census 1797
1798	Census 1798

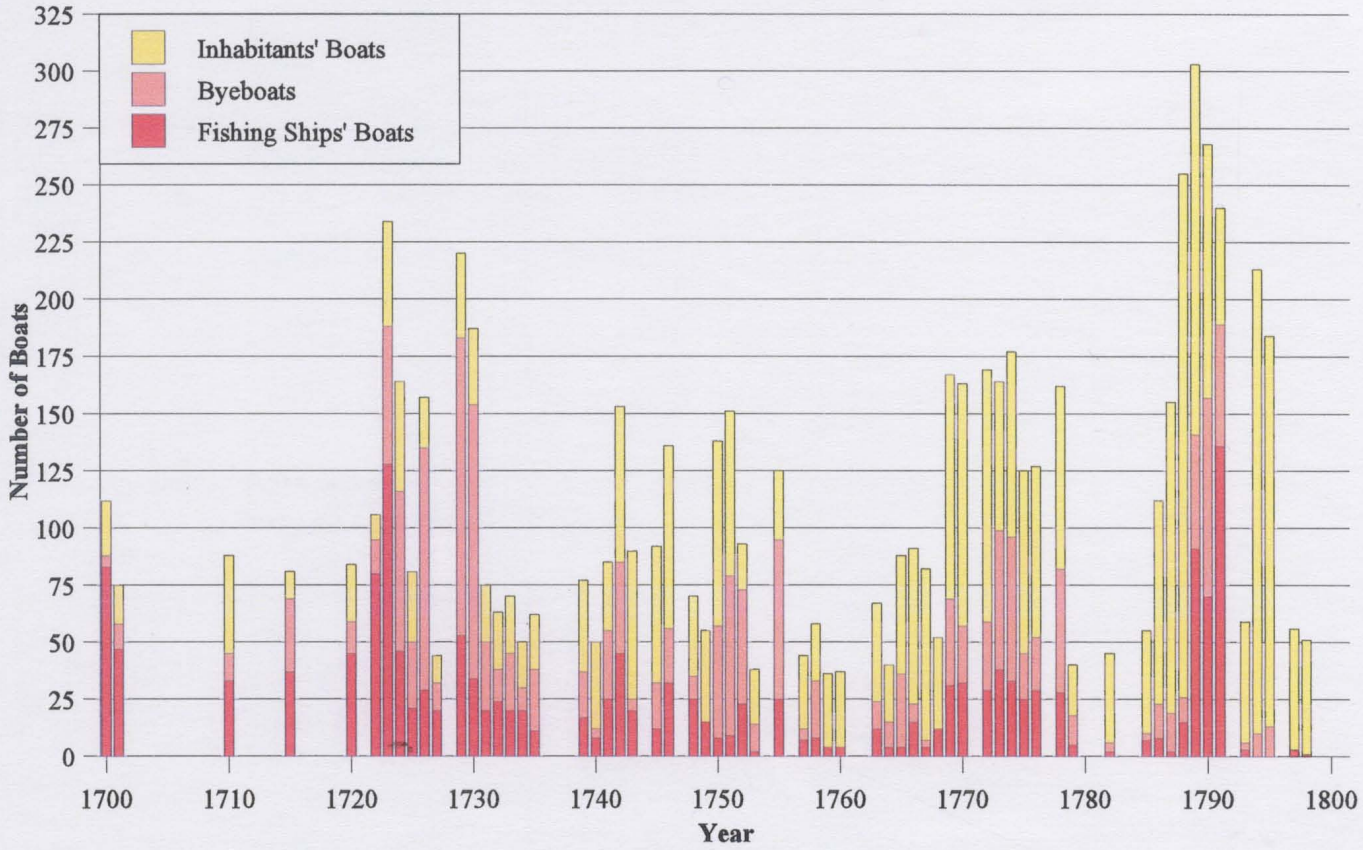


Figure 3.6. The Number of Boats Kept in Ferryland by Inhabitants, Byeboat Keepers and Migratory Fishing Ships During the Eighteenth Century. Observe the shift from a migratory-based fishery (pink) to a Newfoundland resident-based fishery (yellow).

Table 3.7. Codfish Catches Recorded for Fishing Ships, Byeboat keepers, and Inhabitants in Ferryland, 1786-1798.

Catches	1786	1787	1788	1789	1790	1791	1793	1794	1795	1797	1798
Ships	17,400	38,500	78,500	16,288	24,900	26,000	600	-	-	1,300	100
Bye-boats	4,400	3,300	2,150	8,650	17,150	12,000	600	2,500	3,300	-	-
Inhabitants	17,800	25,950	33,950	28,870	20,800	7,400	8,350	42,720	33,100	12,100	8,000
Total	39,600	67,750	114,600	53,808	62,850	45,400	9,550	45,220	36,400	13,400	8,100

Notes: Year 1789 includes Renews, Fermeuse and Cape Broyle.

Years 1790 and 1795 include Renews and Fermeuse.

Sources:

1786 Census 1786
1787 Census 1787
1788 Census 1788
1789 Census 1789
1790 Census 1790
1791 Census 1791
1793 Census 1793
1794 Census 1794
1795 Census 1795
1797 Census 1797
1798 Census 1798

glass, drinking glasses and other glassware; Poole shipped out large quantities of beer; Dartmouth provided cider; and both Poole and Bideford shared the tobacco market (Head 1976:102-105). Additionally, British ports became associated with specific harbours in Newfoundland; a result also of proximity and preferential access, and the traditional custom of "first come, first served" (see Pope 2003:130-131). For example, at the start of the eighteenth century, the Southern Shore was occupied almost exclusively by vessels from the North Devon ports of Bideford and Barnstaple (Head 1976:153; Handcock 1989:66). Between 40 to 50 ships were reported from Bideford each year (Strange et al. 1706). During the Seven Years' War, however, North Devon suffered serious loses and was replaced by the South Devon port of Dartmouth in the provisions trade with the Southern Shore (Table 3.8; Handcock 1989:80; Head 1976:153). At this time, Poole, London and Liverpool were also involved in the Newfoundland trade, however, the latter played a minor role sending only five to ten ships annually (Handcock 1980:9,13).

3.3.4.ii Trade with Ireland

Ireland was also a key player in the provisions trade with Newfoundland. Centred at Waterford, commerce between Newfoundland and Ireland developed around 1670, expanded rapidly following the Seven Years' War, and was crucial during the American Revolution, when trade with New England was interrupted (Mannion 1982:185, 1989:106, 2000a:11, 29). As well as salted pork and beef, Ireland supplied butter, grain products such as bread, flour oatmeal, cloth products including wool, linen, drapery, blankets, canvas, and finished by-products of slaughter such as soap and candles (Mannion 1982:182, 185-186; Prowse 2002:283; Head 1976:108). Although Ireland developed into a supply source, British merchants still largely controlled the trade by providing the vessels that carried the supplies to Newfoundland (Mannion 2000a:14,16;

Notes:

1701 includes the following sack ships: 1 from Plymouth, 1 from London, 2 from Boston, and 1 from Carolina.

1708 Caplin Bay and other southern harbours are not listed separately and may be included here.

1763 includes the following sack ships: 1 from Waterford, 1 from Boston, and 1 from Philadelphia.

New England includes 2 ships from Boston in 1701, 1 from Salem in 1708 and 1 from Boston in 1763.

Sources:

1700a Fairbourne 1700
1700b Innis 1954:140
1701 Graydon 1701b
1703 K.M.F. 4.68.23
1708 Mitchell 1708
1715 Anonymous 1715
1763 K.M.F. 4.68.63
Innis 1954:146

Table 3.8. Home Port of Ships in Ferryland for Select Years.

	1700a	1700b	1701	1703	1708	1715	1763	Total
Bristol					1			1
Bideford	4	4	3	1	5			17
Barnstaple	3	4		3	2			12
Ilfracombe					1			1
Plymouth	2	2	2	2				8
Dartmouth			1	1			4	6
Topsham	1	1			4			6
Poole							1	1
Southampton						1		1
London	1	1	1		2			5
Waterford	1		2				1	4
New England			3		1		1	5
Philadelphia							1	1
Carolina			1					1
Barbados			1					1
Ferryland							3	3
Total	12	12	14	7	16	1	11	73

Head 1976:101). Following the collapse of North Devon's commerce during the Seven Years' War, ports in South Devon and Poole in Dorset assumed a key role in the Irish provisions trade (Keough 2001:84).

3.3.4.iii Trade with New England

Commercial ties with New England were well established by the end of the seventeenth century (Pope 2004:155). New England merchants offered an array of goods such as flour, pork, corn, molasses, sugar, lumber and livestock, as well as tobacco and rum, which they obtained cheaply, and perhaps illegally from other colonies (Table 3.9; Head 1976:155; Crowley 1989:319; Tait 1939:19). The lack of a customs system on the island of Newfoundland during the first three-quarters of the eighteenth century permitted American vessels to sell their goods freely and at lower prices than the English merchants (Crowley 1989:319). Partaking in coastal hawking, American privateers assembled small ships with an heterogenous cargo and called from port to port selling their goods to individuals (Head 1976:121). In June 1708, William Pickering of Boston arrived in Ferryland for about a week selling various items: 17 hogsheads [hereafter cited as hhds.] of molasses, 8hhds. of rum, 19 barrels [hereafter cited as bbls.] each of pork and flour, nearly 1600 lbs. of tobacco and 4 bbls. of cider (Head 1976:121-122). New England merchants also became a valuable source of provisions for Newfoundland as they accepted different forms of payment. Primarily paid in cash, bills of exchange or merchantable fish, merchants also accepted other goods such as refuse fish, pork, shoes, and various specific cloths (Pickering 1708).

Reliance on New England traders increased during and after the Seven Years' War (1756-1763);

Table 3.9. Select Items Imported into St. John's by Thomas Ruck and Company, 1715

- Molasses
- Sugar
- Rum
- Brandy
- Cyder
- Canary and Madeira Wines
- Lemons
- Limes
- Veal
- Beef
- Peas
- Flour
- Bread
- Cheese
- Butter
- Oyle
- Vinegar
- Candles
- Cloath
- Shoes
- Cordage and Boards
- Tobacco

Notes: Items listed as written in ledgers.

Thomas Ruck Jr. was a New England merchant who became involved in the Newfoundland trade between 1713 and 1722. His operations extended from Ferryland to Bonavista, but concentrated around the ports between Torbay and Bay Bulls.

Source: Ruck 1715a
Ruck 1715b

the total of enumerated New England vessels in Newfoundland rose from 83 in 1766 to 175 in 1774 (Innis 1954:104,195). Trade with America, however, was interrupted during the American Revolution (1775-1783). Spurred on by the various taxes and levies the British government imposed upon the colonies such as the Stamp Act (1765), the Townshend Acts (1767), and the Tea Act (1773), the outraged American colonies took collective action and formed the First Continental Congress in 1774, and declared that trade between the American colonies and Newfoundland was to be discontinued. This likely resulted from the fact that Newfoundland continued to pledge allegiance to the crown (Prowse 2002:338; Spielvogel 1994:67-671). In retaliation to the American Congress' Act, the British introduced the Restraining Act of 1775 and Palliser's Act of 1776, which together excluded all non-British vessels from the participation in the Newfoundland trade and fishery (Innis 1954:206-207; Prowse 2002:345). The requirement that all provisions come from England resulted in a scarcity of goods and West Country merchants' gaining "monopolistic advantages" (Crowley 1989:334). Prices rose and remained high following the American Revolution. Reports of near starvation on the island began to circulate and the Privy Council ordered that the supply trade to Newfoundland be opened to introduce competition in hopes of driving prices down (Crowley 1989:331, 335). Specific provisions including flour, bread and livestock could be obtained from elsewhere, with the stipulation that the goods were trucked on British ships clearing from Great Britain (Crowley 1989:334). In 1792, nine customs inspectors were appointed to Newfoundland to collect fees from foreign trade, fishing ships and sack ships (Smallwood 1984:57).

3.3.4.iv Trade with the West Indies

Trade with the West Indies appears to have increased during the eighteenth century. It was,

however, a minor provisioning source compared to other suppliers. In 1714, nine vessels were recorded from Barbados, and the following year eleven were noted in addition to three from Antigua; all carried molasses, sugar and rum (Head 1976:115). Although Bermudian ships were prohibited from landing and curing their catches on Newfoundland in 1788, vessels from the West Indies managed to continue trading with the island throughout the remainder of the century (Prowse 2002:417; Census 1791, 1793, 1795, 1798). Codfish, salmon and train oil continued to be traded for molasses, rum, wine, tobacco, bread, flour, soap, candles, pitch and tar; the first two items of which accounted for over 45 percent of the cargo (Anonymous 1789a and 1789b).

3.3.5 Demographics

3.3.5.i Population

The early modern maritime communities of Newfoundland had three kinds of resident: seasonal, temporary or permanent (Mannion 1990:5). Seasonal individuals were those that came to the island in the summer and returned to their homeland in the fall. Temporary migrants overwintered in Newfoundland before returning home. They often resided on the island only as long as it was economically necessary; most worked for three summers and two winters before returning home (Pope 2004:64). Permanent residents were those that settled in Newfoundland and potentially formed a family production unit and hired servants year round (Mannion 1990:5; Pope 1992:261). Due to the high mobility and turnover rates of the seasonal migrants, the population of Newfoundland, as did that of Ferryland, fluctuated greatly during the eighteenth century. The population swelled with the arrival of the fishing vessels in the spring and shrunk with their departure each September (Figure 3.7). Additionally, during the latter part of the autumn, outport populations in northern bays also shrank, as some residents retired inland to

Sources:

1700	Census 1700a, 1700b	1742	Census 1742	1770	Census 1770
	Pope 1993		Census 1743	1771	Census 1772
1701	Census 1701	1743	Census 1743	1772	Census 1772
1706	Census 1706	1744	Census 1745		Census 1773
1708	Census 1708	1745	Census 1745	1773	Census 1773
1709	Census 1709		Census 1746		Census 1774
1710	Census 1710	1746	Census 1746	1774	Census 1774
1715	Census 1715	1747	Census 1748		Census 1775
1719	Census 1720	1748	Census 1748	1775	Census 1775
1720	Census 1720		Census 1749		Census 1776
1721	Census 1722	1749	Census 1749	1776	Census 1776
1722	Census 1722		Census 1750	1777	Census 1778
	Census 1723	1750	Census 1750	1778	Census 1778
1723	Census 1723		Census 1751		Census 1779
	Census 1724	1751	Census 1751	1779	Census 1779
1724	Census 1724		Census 1752	1780	Census 1781
	Census 1725	1752	Census 1752	1781	Census 1781
1725	Census 1725		Census 1753		Census 1782
	Census 1725	1753	Census 1753	1782	Census 1782
1726	Census 1726	1754	Census 1755	1784	Census 1785
	Census 1727	1755	Census 1755	1785	Census 1785
1727	Census 1727	1756	Census 1757		Census 1786
1728	Census 1729	1757	Census 1757	1786	Census 1786
1729	Census 1729		Census 1758		Census 1787
	Census 1730	1758	Census 1758	1787	Census 1787
1730	Census 1730		Census 1759		Census 1788
	Census 1731	1759	Census 1759	1788	Census 1788
1731	Census 1731		Census 1760		Census 1789
	Census 1732	1760	Census 1760	1789	Census 1789
1732	Census 1732	1762	Census 1763		Census 1790
	Census 1733	1763	Census 1763	1790	Census 1790
1733	Census 1733		Census 1764		Census 1791
	Census 1734	1764	Census 1764	1791	Census 1791
1734	Census 1734		Census 1765	1792	Census 1793
	Census 1735	1765	Census 1765	1793	Census 1793
1735	Census 1735		Census 1766		Census 1794
1738	Census 1739	1766	Census 1766	1794	Census 1794
1739	Census 1739	1767	Census 1767		Census 1795
	Census 1740		Census 1768	1795	Census 1795
1740	Census 1740	1768	Census 1768	1796	Census 1796
	Census 1741		Census 1769	1797	Census 1797
1741	Census 1741	1769	Census 1769		Census 1798
	Census 1742		Census 1770	1798	Census 1798

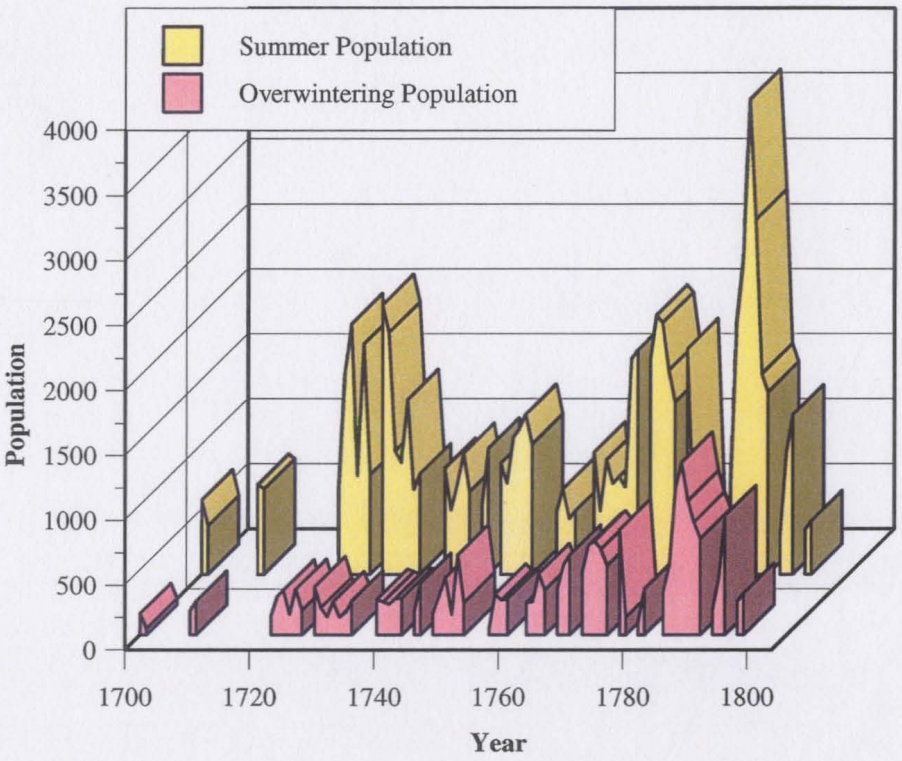


Figure 3.7. Total Summer and Overwintering Populations in Ferryland for the Eighteenth Century.

Notes: The summer population includes fishers from migratory ships, byeboatkeepers, byeboatkeeper servants, masters (men who employed servants), mistresses (masters' wives or females who owned houses and employed servants), men servants (men fifteen years or older including sons of planters), women servants (females fifteen years or older including daughters of planters), and children (males and females under fifteen) (Handcock 1990:19).

The overwintering population includes masters, mistresses, men servants, women servants and children.

To calculate an estimate of the summer populations for the years 1765, 1766, 1768, 1769, 1770, 1772, 1773, 1774, 1775, 1776, 1777, 1779, 1789, 1790, 1791, 1793, 1794, 1795, 1797 and 1798, the overwintering population was added to the total number of fishers, bye-boat-keepers and bye-boat-men for each respective year.

Year 1710 also includes Fermeuse, Brigus by South, Isle of Spear and Toads Cove. Years 1769, 1770, 1771, 1772, 1773, 1774, 1775, 1776, 1778, 1790 and 1795 include Renews and Fermeuse. Year 1789 includes Renews, Fermeuse and Cape Broyle.

reside in huts or tilts for approximately five months, to do winter tasks such as building boats, cutting hoop poles and making barrel staves (Smith 1987:4,7,9). The population of Newfoundland also fluctuated as a result of wars. In 1762 after the French successfully captured St. John's, the population in the outports decreased as residents left the island from fear of further French attacks. London newspapers repeatedly printed lists of ships arriving in British ports laden with Newfoundland residents and their effects (Webber 1984:44). Subsequently, during the American Revolution (1775-1783) the population of the Southern Shore drastically decreased as many families emigrated (Handcock 1989:104). Nevertheless, the general population of Newfoundland increased gradually and steadily during the eighteenth century (Handcock 1990:Figure 1-2).

3.3.5.ii The Seasonal Migrants

Not all seasonal migrants were able to return to their homeland overseas each fall. Some overspent on luxury goods, notably alcohol, got into debt and were unable to pay their passage fare home (Mannion 2001:276). Others were reportedly left behind on the island by fishing ships attempting to save money on the fishers return passage (Prowse 2002:268; Handcock 1989:85). This resulted in a higher overwintering population of labourers in eighteenth-century Newfoundland.

3.3.5.iii The Irish

The increase in trade with Ireland during the last quarter of the seventeenth century established a crucial connection that was conducive to the Irish migration to Newfoundland. English vessels already stopping in Dublin, Cork and Waterford for provisions, began to collect fishers as well as

passengers (Mannion 2000a:25-27; Handcock 1989:88). In 1681, John Story noted that:

> the trade of Irish to Newfoundland is all sorts...They likewise bring over...women passengers they sell for servants and a little after their coming they marry among the fishermen that live there with the planters (Story cited in Mannion 2001:261-262).

Following the Treaty of Utrecht in 1713, large numbers of Irish servants settled in Newfoundland and by the mid-1700s, they numerically dominated both the seasonal and overwintering populations (Mannion 2001, 2000a:52-53; Handcock 1989:30-31).

During the late seventeenth century, at a time of conflict between the English and the French, British authorities in Newfoundland became concerned about the growing Irish population on the island. Fearing possible Irish Catholic disloyalty and collusion with the French Catholics, administrators appealed to the Crown to prevent Irish embarkment on ships headed for the island (Keough 2001:86; Mannion 2000b). In 1755, Governor Dorrill also attempted to reduce the Irish population in Newfoundland and ordered that all masters of ships carrying Irish passengers to the island had to transport the passengers home after the fishing season unless special permission was granted (Keough 2001:89).

Overall, however, no major attempts were made by British officials to regulate Irish migration to and from the island, and Irish patrons continued to settle, many establishing themselves along the southern Avalon (Mannion 2001). In Ferryland, by the late eighteenth century, the Irish, mostly immigrants from Munster and south Leinster, outnumbered the English and American inhabitants (Table 3.10; English 1998:483).

Table 3.10. Distribution of Non-Irish and Irish Residents in Ferryland, 1753-1798.

Year	Non-Irish Population		Irish Population		Total
	n	%	n	%	n
1753	120	48	130	52	250
1758	134	34	258	66	392
1759	72	24	228	76	300
1760	69	23	228	77	297
1766	74	21	271	79	345
1767	132	34	251	66	383
1768	92	26	262	74	354
1786	143	27	395	73	538
1794	125	13	868	87	993
1797	40	10	365	90	405
1798	50	10	437	90	487

Notes: Population counts include overwintering masters, wives, children and male and female servants.

The Irish population count was determined by tallying the number of Roman Catholic residents enumerated in the censuses. Examination of the surnames of the residents of Ferryland (Appendix 1) revealed a lack of French patronyms, therefore, it is assumed that the Roman Catholic residents were Irish.

Sources:

1753	Innis 1954:153 footnote	1768	Census 1768
1758	Census 1758	1786	Census 1786
1759	Census 1759	1794	Census 1794
1760	Census 1760	1797	Census 1797
1766	Census 1766	1798	Census 1798
1767	Census 1767		

3.3.5.iv Sexual Imbalance

During the summer months in Newfoundland, the overwhelming male servant population created a sexual imbalance that carried into the winter season (Head 1976:145). In Ferryland during the eighteenth century the ratio of males to females in the summer season could reach 15:1, but averaged 8:1. During the winter months the ratio averaged 4:1. The "want of ladies was so great" on the island that when Governor Palliser held a ball in St. John's in 1766, Sir Joseph Banks' "washerwoman and her sister were there by formal invitation" (Handcock 1989:92). The lack of women perpetuated a transient male population for as Captain Wheler stated "soe longe as there comes noe women they are not fixed" (Wheler cited in Handcock 1989:32). As more females settled on the island during the eighteenth century and married, the number of planter families increased and a permanent society evolved. With the decline of the byeboat keeper industry and migratory fishery in the late eighteenth century, fewer servants were being hired and by the end of the century, the population was less sexually imbalanced (Keough 2001:188, 192). At this time, women assumed a more prominent role in the fishery, taking on much of the work of shore crews, salting and drying, as well as heading and splitting (Keough 2001:193).

3.3.5.v Social Class

The overwintering population of seventeenth-century Newfoundland consisted of three social classes and one subclass: planter-gentry, ordinary planters and servants -the latter included skilled and unskilled labourers (Pope 2004:260). Based on analysis by Pope (2004, 1992), Nemec (1973) and Handcock (1984, 1989), I propose that a similar social order existed in the eighteenth century.

As the resident population of Newfoundland gradually stabilized during the eighteenth century and a sense of identification with a particular group of individuals as well as a differentiation from others further developed, a three-tiered social hierarchy was further established. Based on socio-economic standing, migratory class and in some instances the "occupational relationship with merchants", Newfoundland society was divided into clusters of status groups rudimentarily labelled as upper, middle and lower classes (Handcock 1984:26). These broad clusters were not comprised of homogenous groups, but rather of distinct rankings of trades sharing commonalities. Nor were they mutually exclusive, some overlap could have occurred between adjacent social categories and individual social mobility, both upward and downward, was possible (Wrightson 1986:188-189).

The upper class comprising merchants, their agents and large planters, held considerable power through their economic and commercial grip on the local population and economy, and at times augmented their control by taking on political administrative roles (Pope 2004:270; Nemec 1973:24). Merchants, such as Benjamin Lester of Trinity, or their agents, were few in number and held a monopoly over the local distribution of provisions (Handcock 1984:25). According to Captain Byng, principal merchants often boarded supply ships before they were anchored and seized the cargoes for themselves "greatly to the prejudice of the poor boatkeepers and inhabitants, who must have their necessaries from these gentlemen on what conditions they please" (Byng cited in Crowley 1989:323). Large planters, which also included prominent byeboat keepers and mistresses, were considerably wealthy literate individuals, who generally resided on the island year round and were involved in the fishery or the seal hunting industry, owned boats and employed as many as 20 or 30 servants (Pope 2004:264-266; Nemec 1973:24).

Upper-class planters did not physically participate in the fishery or seal hunt, but rather invested capital and oversaw the commercial ventures (Pope 2004:263-264).

The middle class consisted of independent planters and higher paid merchant servants such as clerks and accountants (Handcock 1984:26). Middling planters tended to be year round residents, were involved with the fishery, generally owned boats and hired fewer than 20 servants. They may have also invested in other economic operations including farming, animal husbandry or taverns. During the eighteenth century, all tavern keepers holding a liquor license were required to operate at least one shallop in the fishery (Keough 2001:214-215). By virtue of this, Mrs. Tree, the proprietor of the London Inn at Ferryland in 1788 could also be considered a byeboat keeper, and thus a middle class planter (English 1998:477; Smallwood 1984:59).

The lower class consisted of dependent inhabitants and servants. Dependent inhabitants were manual labourers who, regardless of whether they were self-employed, sold their labour or hired labour, lived at or near a subsistence level (Nemec 1973:24). The servant class included various occupations such as dieters (overwintering boarders), fishers, carpenters, as well as unskilled labour and in most instances children (Pope 2004:260; Handcock 1989:28). Servants frequently hired themselves off to planter families and the fishing ships, and tended to be highly transient. Due to their mobility, servants did not invest in a home base on the island and generally owned fundamental provisions. Fishers were the exception as they were able to afford amenities. Probate inventories of several mariners in Providence, Rhode Island note Chinese porcelain wares and delftware, which cost about three times the price of regular earthenware, in fishers' possessions (Teller 1968:570). Additionally, during the seventeenth century, fishermen in the

North Atlantic consumed wine and brandy, both considered a middle-class luxury in England (Pope 1989a). This consumption pattern may have continued into the eighteenth century.

3.4 Conclusion

Newfoundland during the eighteenth century experienced a series of French attacks, but was relatively peaceful following the Seven Years' War. The migratory dry fishery shifted to a bank fishery, which facilitated an increase in the Newfoundland-based resident fishery; the bye-boat industry continued, but declined in the latter years. British sack ships continued to supply the fishery, but came to rely heavily on Irish ports such as Waterford for victuals and men. At the same time, trade with the American colonies, specifically New England, expanded. The island was governed by the fishing admirals, local authorities and the Royal Navy, the latter of which held legal supremacy for most of the century. A judicial system was established and included three levels of court: sessions, the surrogate court and the supreme court. The resident population gradually increased throughout the century with the influx of Irish migrants. Skewed towards young males at the beginning, the population gradually became sexually balanced, with the increase in females settlers and the demise of the migratory fishery in the late eighteenth century. As the population stabilized, the three-tiered social structure was further established.

Chapter Four
Archaeological Investigation at Ferryland

4.1 Introduction

This chapter outlines the history of the archaeological excavations conducted at Ferryland from the first investigations in the late nineteenth century to 2001. The extent of the research and artifacts uncovered are briefly discussed.

4.2 Previous Archaeological Investigations

Archaeological investigations at Ferryland commenced with Bishop Howley's brief excavations in 1880 (Howley 1979:124). The locations of his excavations are unknown and most of the artifact records lost, however, one exceptional discovery was a silver earwax spoon with the initials S.K. (Pope 2004:274). In 1937, Dr. Brooks, an entomologist from Maryland, excavated around The Pool and on the adjacent mainland north of the former convent for the Sisters of the Presentation Congregation (Figure 4.1) in search of Lord Baltimore's Mansion House (Brooks cited in Barakat 1976:9-10; Tuck 1996a:24; Smallwood 1984:59). Sir George Calvert, later Lord Baltimore, was a Secretary of State in the early seventeenth century and was granted allotments of land in the middle part of the Avalon peninsula (Cell 1982:15; Anonymous 1623). In 1621 Calvert sent Captain Edward Wynne and a small group of men to establish a permanent settlement on the Avalon. They settled in Ferryland, and began the construction of tenements, a forge, a brewhouse, a hen house and a "palizado" (Wynne 1622a; Prindeville 1949:17). Shortly thereafter, a "Mansion House", consisting of a group of stone buildings of domestic function, was erected for Calvert's habitation (Barry Gaulton, personal communication, 2007). Calvert and his family, however, resided in the residence for only a couple of years (Tuck 1996a:22). Based on his findings, Brooks surmised that Lord Baltimore's Mansion House was located southeast of

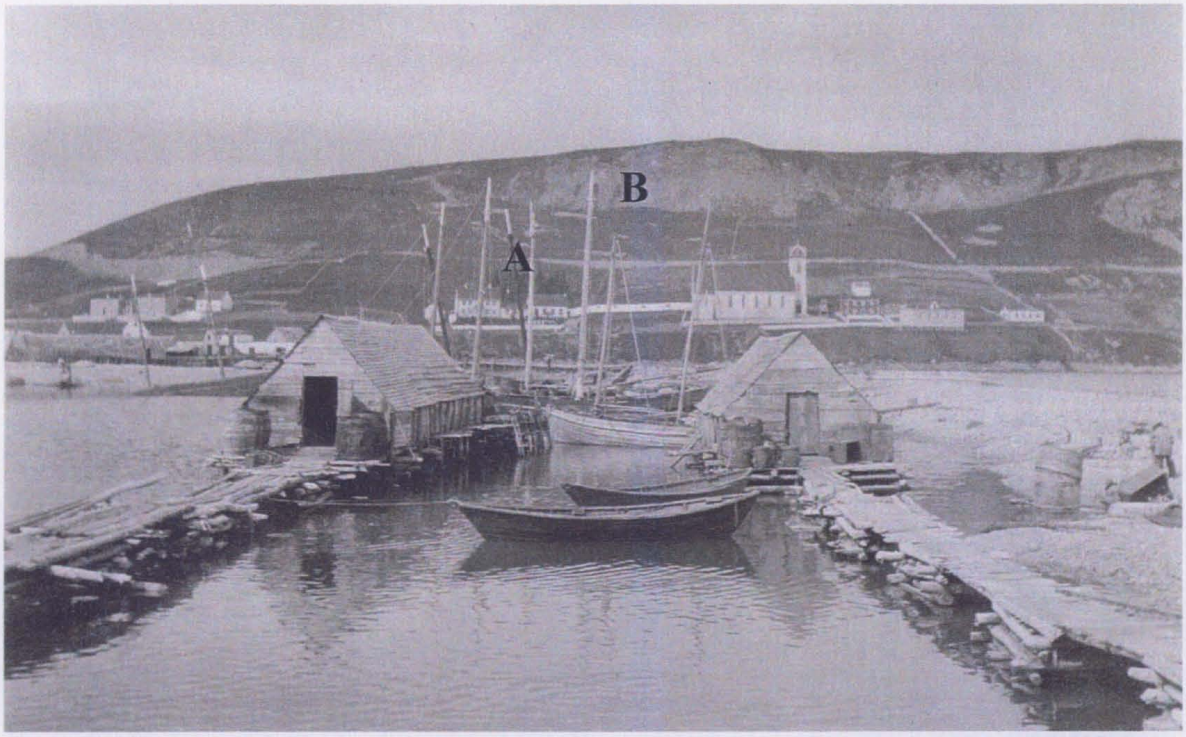


Figure 4.1. Looking Towards the Gaze in 1913. The former convent for the Sisters of the Presentation Congregation is labelled as A. The Gaze is labelled as B. Revised from photograph by Edith S. Watson, Library Archives Canada, E003525412.

The Gaze (Brooks cited in Barakat 1976:16). In 1959 archaeological investigations resumed in Ferryland to verify the site of Lord Baltimore's Mansion (Harper 1960:106). On behalf of the Historic Sites Division of the Department of Northern Affairs, J.R. Harper (1960) opened several test pits at various suggested sites. One six foot square unit opened on the south shore of The Pool revealed seventeenth- and eighteenth-century material (Harper 1960:111; Barakat 1976:15). Although no intact structural remains were encountered, hand-forged nails and an early form of a door lock were recovered and Harper concluded that he had uncovered a wing or outbuilding of the Mansion House (Harper 1960:111; Tuck 1985:379). In 1968, Memorial University of Newfoundland conducted excavations near the south shore of The Pool and revealed a slate drain and some seventeenth-century artifacts (Tuck 1996a:24). During the early 1970s, Robert Barakat undertook further small-scale excavations east of Harper's test square and on Buoy's Island (Tuck 1996a:24).

The Memorial University Archaeology Unit returned to Ferryland during the latter half of the 1980s to assess the archaeological potential of the site, determine the extent of disturbance from recent construction and to locate at least one of the structures noted in the early documents of the colony (Tuck 1996a:24). Under the direction of Dr. James Tuck, large-scale excavations were carried out in four areas: A, B, C, and D (Figure 4.2; Tuck 1985, 1989, 1996a:24; Tuck and Robbins 1986; Pope 1986). The findings indicated that the early occupation of Ferryland was indeed centralized around The Pool and that the site was fairly well preserved. In 1989 salvage work was conducted by M.P. Stopp Consulting at the juncture of The Pool and Lighthouse road. A possible cobble and shale roadway in addition to a stone wall were exposed (Stopp 1989). Archaeological investigations by Memorial University resumed during the 1990s to present-day;

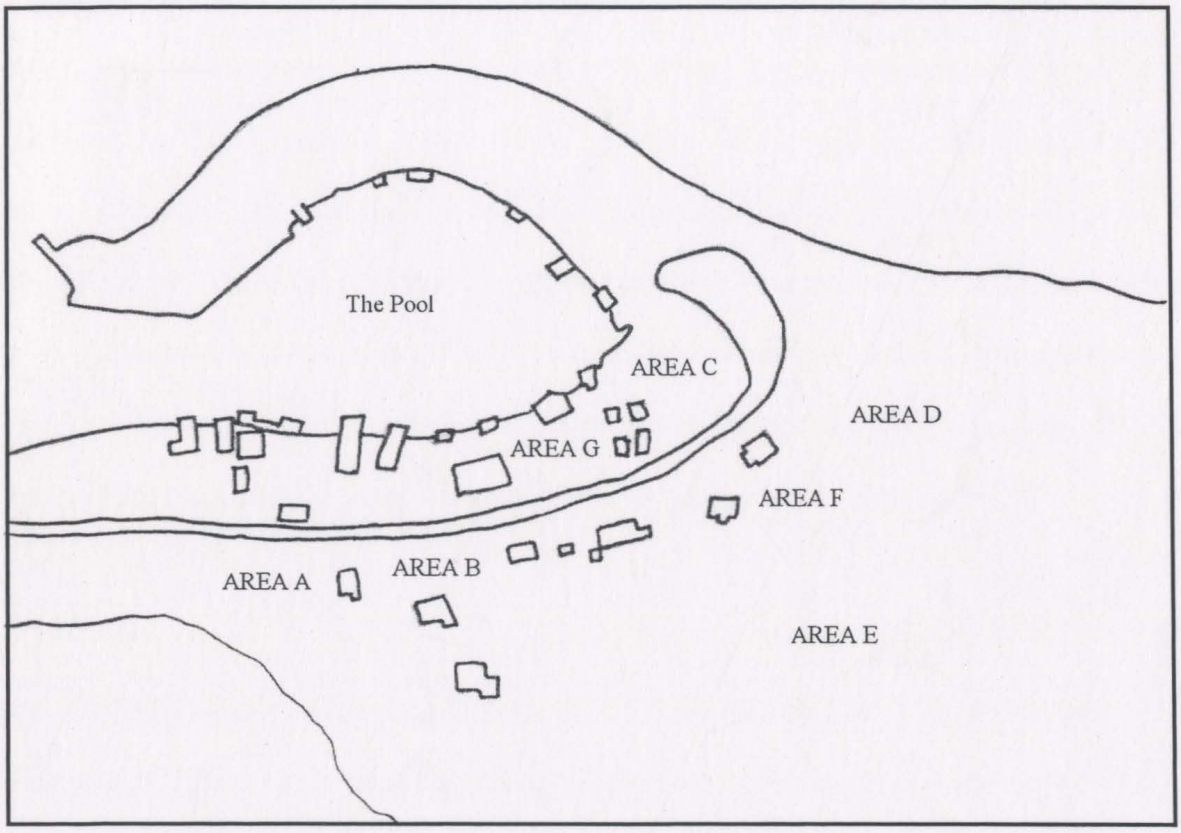


Figure 4.2. Location of Excavation Areas at Ferryland, Newfoundland (revised from Tuck 1993a).

areas B, C and D were expanded and areas E, F, G and H were opened (Figure 4.2; Tuck 1993a, 1993b, 1993c, 1994, 1996a, 1996b; Carter et al. 1997, 1998; Tuck and Gaulton 2001). Detailed synopses of the investigations and findings from these loci, excluding Area E, have been summarised in other sources and will not be repeated here (refer to Tuck 1993a, 1993b, 1993c, 1994, 1996a, 1996b; Carter 1997a; Carter et al. 1997, 1998; Gaulton 1997a; Nixon 1999a; Stoddart 2000; Crompton 2001; Tuck and Gaulton 2001). Area E is located on the brow of a hill, which lies south of The Pool. In 1993, archaeological excavations were conducted in this area to search for the remains of the "palizado", the seven-foot high post and rail palisade constructed by Edward Wynne in ca.1621 (Tuck 1993b; Wynne 1622a). The investigation of a conspicuous earthen mound, clearly artificial in nature, revealed the remains of seventeenth-century fortifications and a stone chimney foundation from an eighteenth-century dwelling.

Supplementary underwater archaeological investigations also occurred at Ferryland in 1984, 1991 and 1992 (Skanes and Deichmann 1985 cited in Crompton 2001:21). In 1984, Skanes and Deichmann (1985) examined a submerged undisturbed sedimentary deposit along the north shore of The Pool and the findings that were previously dredged by locals from the same area. The artifacts collected from The Pool dated from the early seventeenth century or earlier through to present day (Skanes and Deichmann 1985:400, 401). Unfortunately, no reports exist for the work conducted in the 1990s.

4.3 Conclusion

Considerable archaeological research has been conducted in Ferryland since the late nineteenth century. Most of the work has focussed on the seventeenth-century component, specifically

verifying archaeologically the location of Lord Baltimore's Mansion House. During the 1990s, Memorial University conducted large-scale excavations in various loci throughout the settlement. One of these loci, Area E, revealed the remnants of seventeenth-century fortifications and the remains of an eighteenth-century house, the first of its kind uncovered in Ferryland.

Chapter Five
Methodology, Stratigraphy and Site Formation

5.1 Introduction

To develop a contextual understanding of an archaeological site, one must define the formation processes, both natural and cultural, relevant to that site. Although not always an easy task, deciphering the stratigraphic record can reveal many intricate clues to these processes. In this chapter, I will outline the methodology employed in the Area E excavations, briefly describe the events uncovered during the investigation, discuss the formation processes that have had an effect on the site and provide a general history of the site as revealed by the stratigraphic record.

5.2 Methodology

Archaeological excavations were conducted in Area E in hopes of locating the "palizado" erected by Captain Edward Wynne in ca.1621 (Tuck 1993b, 1996a; Wynne 1622a). A formal one-metre grid was superimposed over the site, and a series of one metre test pits were excavated manually in 1993. Each distinct soil stratum uncovered was assigned a sequential event number, and each distinct feature, such as a large earthen mound or the foundation to a chimney, was assigned a sequential feature number.

Archaeological investigations resumed in the summer of 2001 to further investigate the eighteenth- century structure. Test pits were dug adjacent to the chimney base (Feature 16) to determine the depth and composition of the footing, within and around a rock scatter (Feature 17) to assess this feature, and south of the chimney base (Feature 16) to define the limits of the building as well as develop an understanding of the stratigraphy outside of the structure. Prior to excavation, the one-metre grid was re-established and the wild grass and plant overgrowth

removed. A total of 46 units were excavated manually over the course of a month and a half, followed by approximately one month of field recording and artifact processing. The site was excavated stratigraphically; new layers uncovered were given new numerical designators. About 80 percent of the soil was wet screened, at first through a 1 cm mesh screen and then through a 0.5 cm mesh screen. Due to time restraints a few units were not excavated to sterile subsoil. The test pits were not backfilled. Photographs of the excavation, significant features and profiles were taken in colour slides. Profiles and a planview of the site were drawn at a 1:10 scale.

Artifacts were collected from each soil level and given the correlating event number. Horizontal and vertical co-ordinates were also recorded. The artifacts were cleaned, labelled, and inventoried in the on-site laboratory.

5.3 Site Formation: A Brief History as told by the Stratigraphy

The archaeological record sheds light on both the cultural and natural processes that contribute to the formation and transformation of a site. The stratigraphic deposits suggest that Area E can be divided into three cultural formation phases: the construction and renovation of the seventeenth-century fortifications, the construction and occupation of an early eighteenth-century structure, and later demolition of the structure, scavenging of the site and farming endeavours. The natural transformation processes such as frost heave activity will be discussed separately. Appendix 2 provides a detailed breakdown of the events and features uncovered in Area E.

5.3.1 The Seventeenth-Century Fortifications

The conspicuous earthen mound revealed two distinct fortifications. The earliest consisted of a sod retaining wall (Feature 8a) about a metre high, composed of ten to twelve layers of alternating humus and subsoil, built upon sterile humus and formed the south edge of what appears to be an earthen platform (Tuck 1996a:39-40). This feature may have been constructed as part of the colony's original fortifications supported by the fact that this location offers a commanding view of the passage through which ships must pass to enter Ferryland as well as provides a balanced relationship between field of fire and proximity to the community. A rectangular mound (Feature 8), constructed from loam and rock, was built upon the latter sod retaining wall. Measuring approximately 8 m north-south by 15 m east-west, it appears to have been built from soil carried downslope from a shallow pit located to the south of the mound (Tuck 1996a:39). The stratigraphic position of the sod mound and associated artifacts including a William III halfpenny (1696) and a few small glass beads, possibly remnants from d'Iberville's Native forces, suggest a late seventeenth-century date. As this earthen mound measures greater than 74 yards (11 m), the minimum length required for a breastwork manned by 12 cannons, this feature may be the fort constructed by Captain William Holman in 1694 to protect Ferryland from the increasing French threat (Vauben in Dunnigan 1986:53; Davis 1695). If not, this feature could be one of the old forts repaired by Holman (Tuck 1996a:39). Nevertheless, further archaeological research is required to assess the potential for a wooden decking to necessitate the movement of field carriages as well as fascines of various sizes needed to support the mass of earth.

A row of post moulds running east-west was uncovered immediately south of the earthen mound. (Figure 5.1). At least one of these holes was intentionally filled in prior to the construction of the eighteenth-century building, as the backfill of slag, charcoal and burnt slate (Event 505) extended beneath the chimney foundation. If this post mould is contemporaneous with the row, then the northerly row of posts predate the eighteenth-century structure and could be either related to the seventeenth-century fortification or evidence of the colony's original palizado mentioned in Captain Edward Wynne's letter to George Calvert, dated 28 July 1622:

> After Christmas, we [the Ferryland inhabitants] employed ourselves in the woods...[whence] we got home as much or as many trees as served us to palizado into the plantation about four acres of ground, for the keeping off of both man and beast, with post and rail seven foot high, sharpened at the top, the trees pitched upright and fastened with spikes and nails (Wynne 1622a).

The post moulds were spaced approximately 2 m apart indicating that the rails had to be at least this length and therefore, large spikes were necessary to fasten the rails to the posts. Unfortunately, very few spikes were uncovered in this area; a result possibly of later scavenging activities. If the northerly row of post moulds are indeed the remains of the early palisade then their location illustrates the extent of the seventeenth-century settlement at Ferryland.

In his description of Ferryland in 1711, Christian Lilly remarked that on the east end of the isthmus stood the "remains of some Pallisades with a sort of earthen Brestwork formerly cast up to defend the Passage, but of very little service...by reason of its being at first but ill contrived and...now decay'd" (Lilly 1711). If Lilly is referring to the features in Area E, then it appears that the late seventeenth-century fortifications had fallen into disrepair by the first quarter of the eighteenth century.

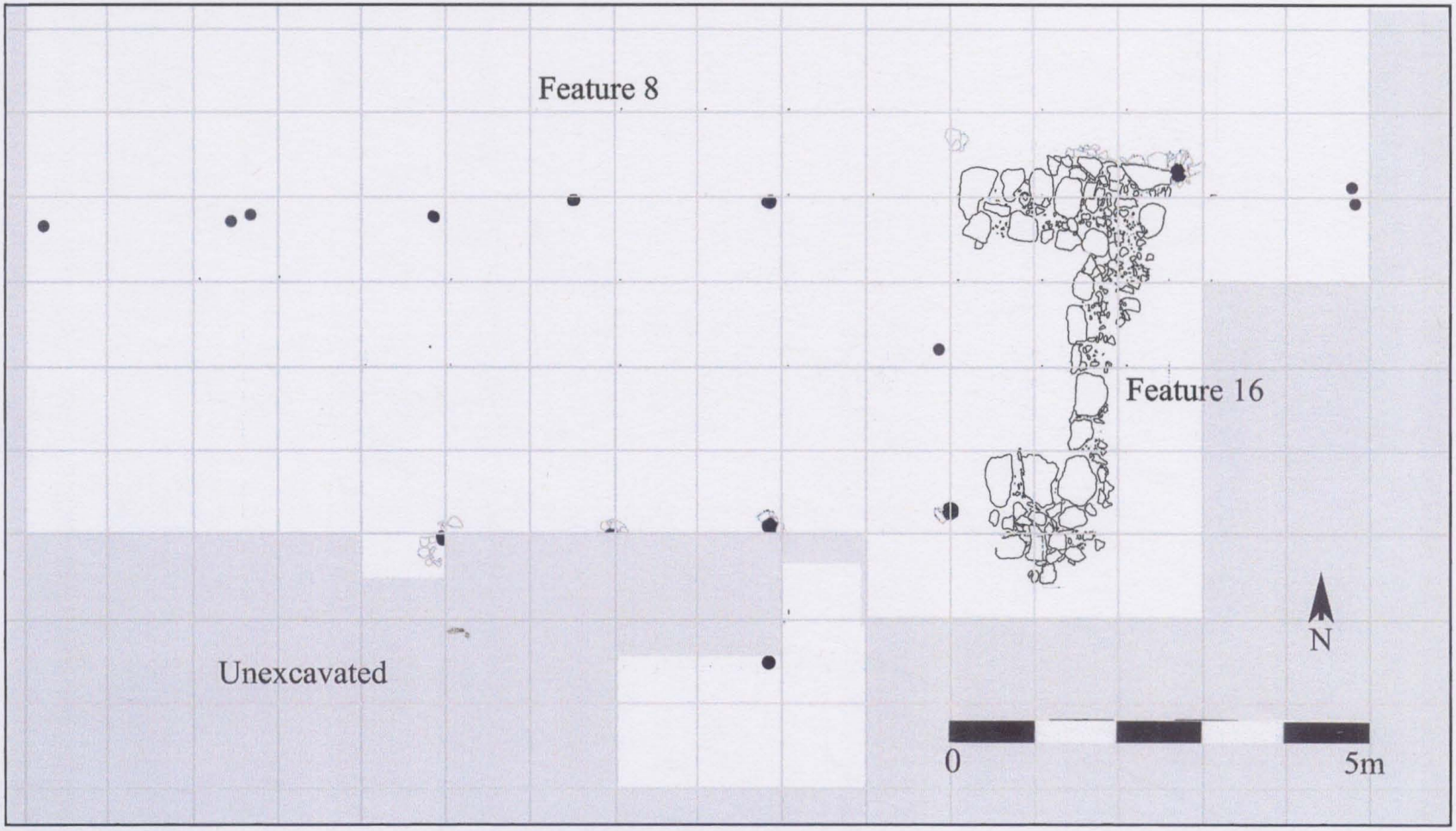


Figure 5.1. Plan View of Features Uncovered in Area E, Ferryland.

5.3.2 The Eighteenth-Century Structure

Sometime during the eighteenth century, a structure was built south of the earthen fortifications. The location provided a view of the passage by sea into Ferryland and the sod mound could have provided some protection from northerly winds. The northern posts, if they did predate the structure, were incorporated into the building at this time. They were most likely sawn down to provide supports for the structure's sill, whereas those not needed were removed and the holes filled in (Event 505). A second row of posts running east-west and spaced approximately 2 m apart were laid approximately 3.8 m south of the northern row (Figure 5.1).

Shortly after the structure was built, it appears that drainage problems arose around the building. To combat these problems, beach sand and pebbles (Events 84 and 479) were deposited to the north and south of the building to raise the ground level and create a naturally-draining surface. As witnessed in the field, during rainstorms water would trickle down the earthen mound and pool immediately south of Feature 8, where Event 84 was uncovered. When the structure was still standing, water may have also travelled downslope and collected by the south wall of the building where Event 479 was situated. The matrices of Events 84 and 479 are not natural to the area, indicating that these layers were intentionally deposited.

A wooden addition was eventually added adjacent to the south of the dwelling. This linhey had an earthen floor (Event 488b) and was probably used as storage space. An additional storage room also with an earthen floor (Event 101b) was located in the eastern portion of the dwelling. At some time, as a simple method of cleaning up the latter storage room, additional soil (Event 488a) was scattered upon the original earthen floor capping it and all its associated debris scattered within. Additional

renovations may have also taken place at this time, as a cache of ferrous nails (Event 503) were uncovered beneath the new floor.

5.3.3 Scavenging and Farming Endeavours

The archaeological remains reveal that a series of post-depositional disturbances occurred following the abandonment of the dwelling. Once the house fell into disuse, the site was scavenged for reusable material as demonstrated by the lack of principle wooden architectural features. The structure was levelled (Event 487 and Feature 17) and the area graded with soil transported from elsewhere (Events 66 and 90). Additional landscaping episodes (Events 51 and 52) occurred in later years. The only remains of the structure were the associated middens, the chimney foundation, earthen floors and post moulds indicating the location of the sill supports.

The site was reclaimed and employed as farming fields; furrows spaced a standard eight to nine feet (2.7 m) running north-south were still present in 2001 (Figure 5.2; Skeoch 1982:167). Studies analyzing the effects of plowing on the archaeological record have determined that plowing in general decreases artifact density, randomizes the distribution of artifacts, and displaces material an average of just over two metres with greatest displacement occurring parallel to the direction of plowing (Odell and Cowan 1987:481; Dunnell 1988; Cowan and Odell 1990; Dunnell and Simek 1995:306; Shott 1995). Plowing of the site did indeed result in a degree of lateral and vertical mixing between strata and excavation units; artifacts dating from the seventeenth century to present day were recovered from the upper zones (Table 5.1).

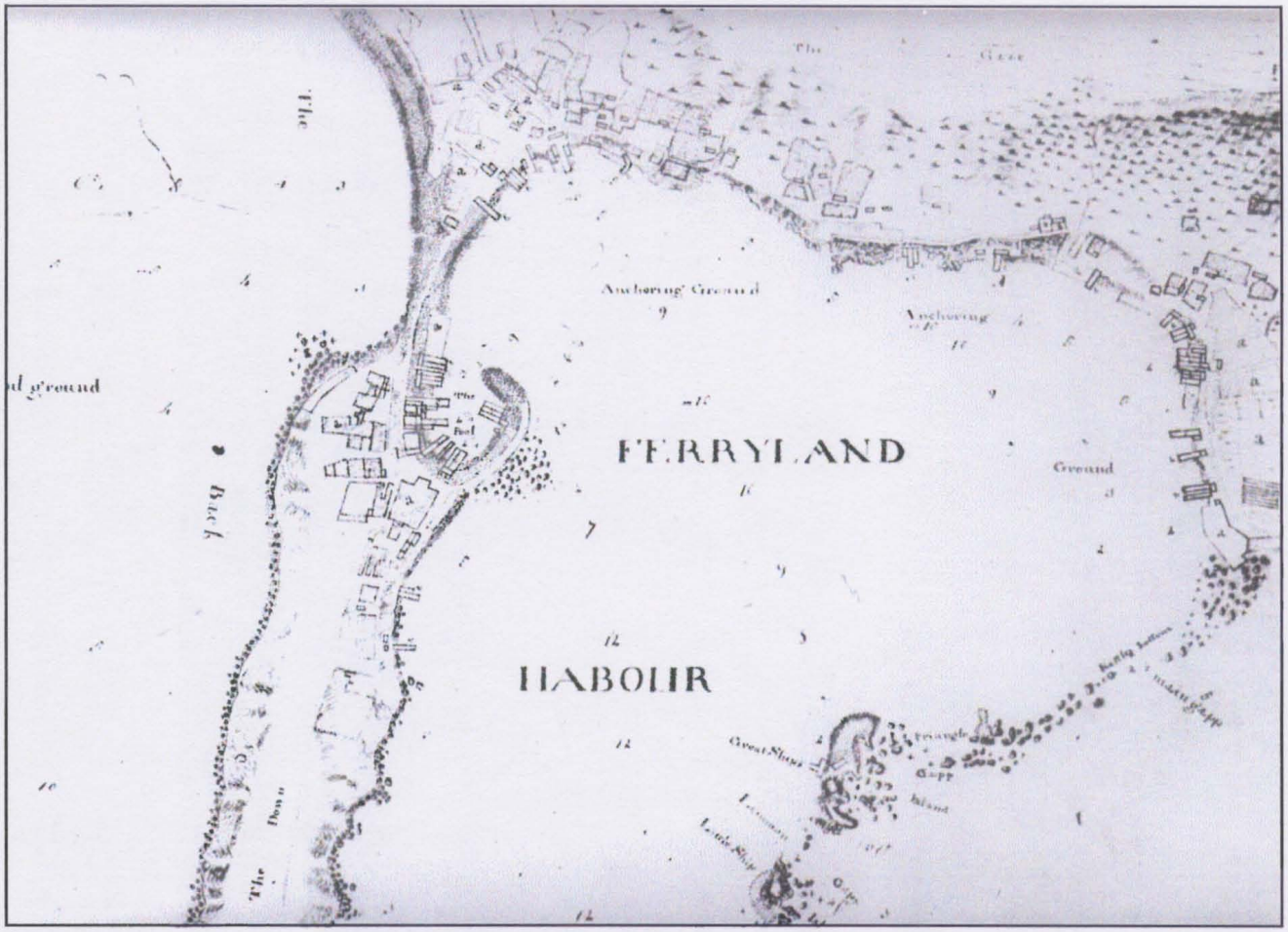


Figure 5.2. *A Plan of Cape Broil, Capeling Bay and Ferryland Harbour, 1752.* Large tracts of land were parcelled out in the subject area suggesting that residents of Ferryland invested in agricultural farming and/or animal husbandry by this time. Detail of map by Edmond Scott Hylton, Centre for Newfoundland Studies, G 3437 F4 1752 H9 1970 MAP.

Table 5.1. Crossmends as an Index of Horizontal and Vertical Displacement.

Artifact Name	Catalogue Number	Event	DBS (cm)	Unit
English white salt-glazed	53425	52	40	S36 E97
stoneware rim	56392	52	-	S35 E93
	63041	52	-	S35 E99
Westerwald mug	66476	66	64	S40 E101
	392743	476	93	S42 E96
	392744a	488	120	S43 E96
	397958	476	115	S43 E97
	401936	488	97	S42 E97
Westerwald mug	54199b	52	-	S36 E96
	63911	95	95	S38 E101
	65983	66	42	S41 E99

Notes: DBS denotes depth below (ground) surface, measured in centimetres.

The artifact assemblage demonstrates that plowing displaced artifacts both horizontally and vertically. If events 476 and 488 became the sub-plowzone, the undisturbed layer beneath the plowzone, following the deposition of events 66 and 90, then the single sherd from the Westerwald mug in the second example illustrates that movement could be up to 5 m in the direction of plowing and up to 2 m in the transverse (Dunnel and Simek 1995:307).

5.3.4 Natural Transformation Processes

Natural transformation processes include both geological processes such as erosion, sedimentation and frost heaving, and biological processes such as animal disturbances and bacterial degradation. Frost heave activity was noted in Area D (Crompton 2001:42) and may have had an effect upon Area E as well. As repeated free-thaw cycles promote upfreezing or the ejection of larger items upward it may explain the presence of cannon balls in the upper soil strata that post-date all Dutch and French attacks on Ferryland (Table 5.2; Miller 1980:254-256; Gladfelter 1977:525). It must be noted, however, that the gun balls were situated within recycled soil and may have actually been transported to Area E from elsewhere. Natural decaying agents also appear to have played a role in altering the site as the only remains of the sill supports were their post moulds and in-situ nails. Evidence that the supports were left in the ground to decay include two in-situ wrought nails uncovered in one of the post moulds and the fact that the post holes were not altered to indicate that the timbers were pried out. The area was used to cultivate potatoes, a root crop that grows well in more acidic soils with a pH balance of 5.0 to over 7.0 (Newfoundland and Labrador 2004), indicating that the soil is fairly acidic, which promotes bacterial degradation.

5.4 Conclusion

This chapter has provided an historical overview of Area E based on the archaeological record. The stratigraphy and features encountered during the excavations have been outlined and the natural formation and transformation processes have also been identified. Three cultural formation phases exist: the construction and renovation of the seventeenth-century fortifications, the construction and occupation of an early eighteenth-century structure, and later demolition of

Table 5.2. Provenience of Cannon Balls as an Index of Vertical Migration.

Catalogue Number	Event	DBS (cm)	Excavation Unit
52781	52	68	S36 E98
64487	52	-	S35 E96
58747	66	69	S38 E97
64617	66	68	S40 E101
67445	66	86	S35 E88
70058	66	84	S40 E103
70059	66	63	S40 E102
393264	90	81	S40 E97

Note: DBS denotes depth below (ground) surface, in centimetres.

the structure, scavenging of the site and farming endeavours. The archaeological record has demonstrated that Area E was never completely abandoned, but rather that its function has changed through the years.

Chapter Six
Architecture

6.1 Introduction

Possessing knowledge of a wide range of building styles, colonists settling the New World adapted Old World forms to suit the physical environments and readily available materials they encountered. In Newfoundland, structures erected during the formative years of settlement had Old World antecedents, however, the technology used in their construction often differed. The following chapter discusses the architectural remains of an eighteenth-century structure uncovered in Area E, Ferryland and their significance to regional ties and early construction in Newfoundland.

6.2 Architectural Findings

6.2.1 The Superstructure

Excavations in Area E uncovered the partial remains of a timber-framed structure with a single stone end-chimney (Figure 6.1). Constructed of low-quality, local fieldstones and boulders of irregular size and shape and rubble in-fill, only a single coarse of the stone chimney foundation remained in the eastern portion of the house. No builders' trench was found indicating that the chimney lay directly on the ground surface. Two parallel rows of post moulds extended westward from the chimney foundation indicating that the chimney was engaged in the gable wall, rather than projecting from the end wall (refer to illustrations 1 and 4 in Brunskill 2000:97). The sides of the chimney may have been enclosed by timber framing, whereas the end wall was not. Exposed to the elements, the end wall would have required lime mortar to bond the masonry (Stachiw 2001:23). No lime mortar was uncovered on the foundation stones suggesting that

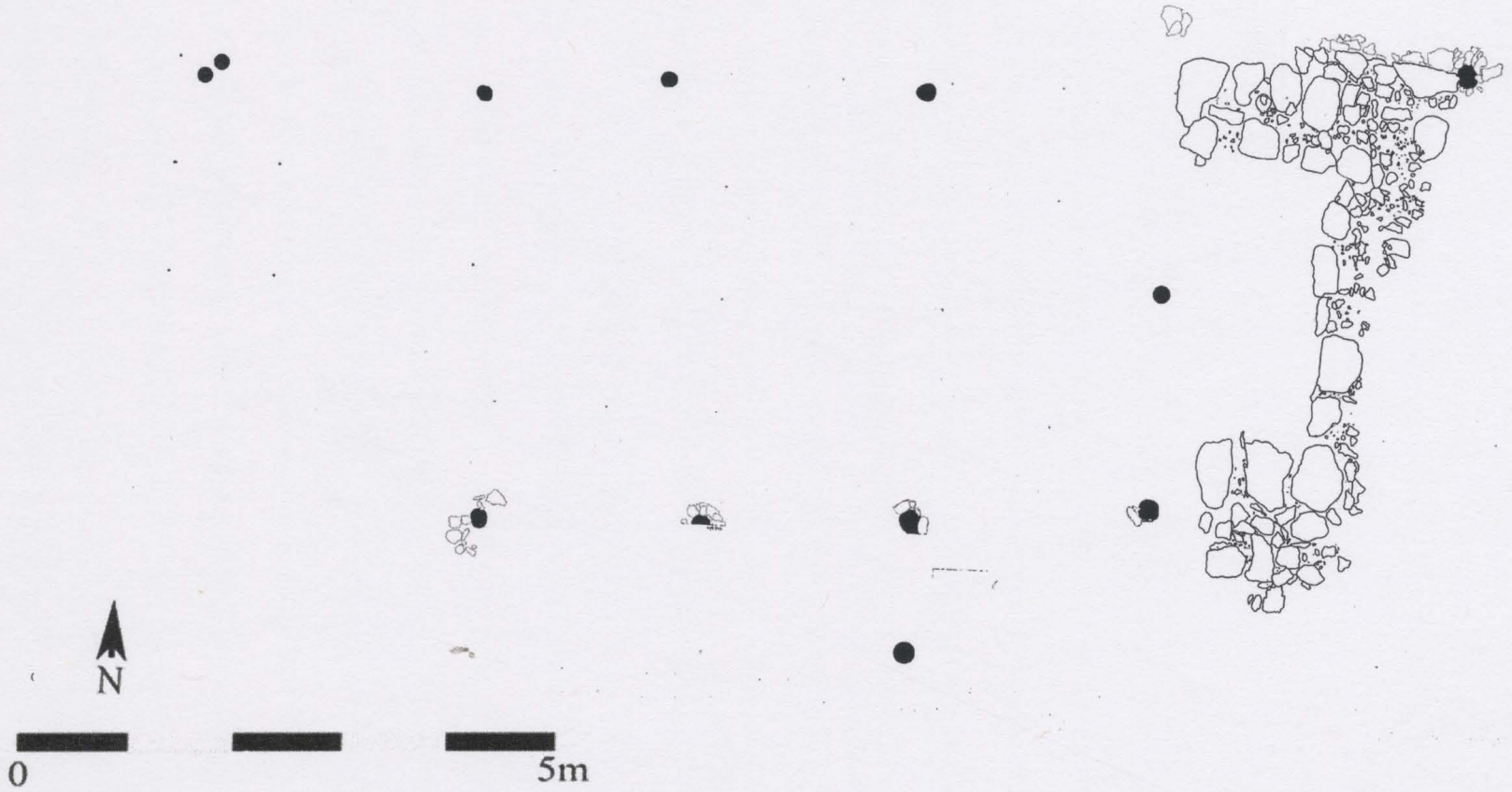


Figure 6.1. Plan View, Area E, Ferryland.

The use of slate roofing was observed on a couple of early seventeenth-century structures in Ferryland (Gaulton 1997b:25-28; Carter 1997a:80) and evidence for thatch roofing was found at the cow byre in Area C (Gaulton 1997a:113). No evidence existed for the use of either roofing material in Area E. Due to the relative lack of native materials suitable for thatching, the lack of shingle nails and the labour-intensive nature of slate roofing, the owners of the Area E structure most likely employed sod and bark for their roof; a common roof covering observed on nearby Buoy's Island and Goose Island during the eighteenth century (Lilly 1711; Bastide 1750). Wooden shingles may have been used

10.2.2 Linhey

In later years, a linhey or lean-to was added to the south side of house. Revealed in the stratigraphic record simply as a compact, smooth earthen deposit, the linhey had an earthen floor and measured roughly 1.6 m north-south by 2.8 m east-west (5' by 9'). As no post moulds were uncovered associated with the addition, the linhey was most likely made of wood and constructed upon a wooden sill that rested directly on the ground (the single post mould uncovered within the linhey stratigraphically predates the addition). Added as more space was needed, lean-to additions typically housed a larger kitchen, flanked by a storage room and a small bedchamber (Roth 2001:54). The linhey was indeed employed as storage space as all the fishing equipment and a glass wine bottle were recovered from within this section. Due to its small size, it is highly unlikely that the linhey was also used as a kitchen and bedchamber.

10.2.3 Fenestration

With the addition of the linhey, there is only one possible location for the direct entryway: near

the middle of north wall so as to open into one corner of the main hall (Figure 6.2). As a common location for doorways in two-celled British dwellings, this placement is further supported by the relative lack of artifacts in this area and the huge midden along the west end of the house indicative of a Georgian refuse disposal practice (Brunskill 1982:80). In comparison to the earlier colonial period, in which people held an informal organic view of the world - nature reigned and garbage flanked every doorway and window-, in eighteenth-century British society, a more sophisticated worldview developed and efforts were made to control nature, garbage was hidden from public view and became restricted to areas behind and adjacent to structures, and neat tidy yards symbolized one's wealth and power (Miller 1994:81; King 1988:26). The front yard was, therefore, devoid of artifacts, whereas the back yard contained refuse deposits.

One window glass fragment was recovered from Event 98. The pane is light green in colour, 1.2 mm in thickness and exhibits caming marks along one edge. The manufacturing technique could not be identified. The presence of the window pane fragment reveals that the structure had at least one glazed window. The exact location of the window could not be determined.

6.2.4 Floor Plan

According to stratigraphic evidence, the dwelling in Area E originally had a two-room floor plan. The principle room, the hall, occupied over half of the ground floor and contained the main fireplace in the gable wall; this location of the fireplace was possibly chosen to increase interior space and air circulation while maintaining a sufficient supply of heat (Brown 1998:93). As a heated room, the hall possibly served as a combined living-room and kitchen. The remaining space opened off of the main hall and was situated within the western end of the dwelling. This

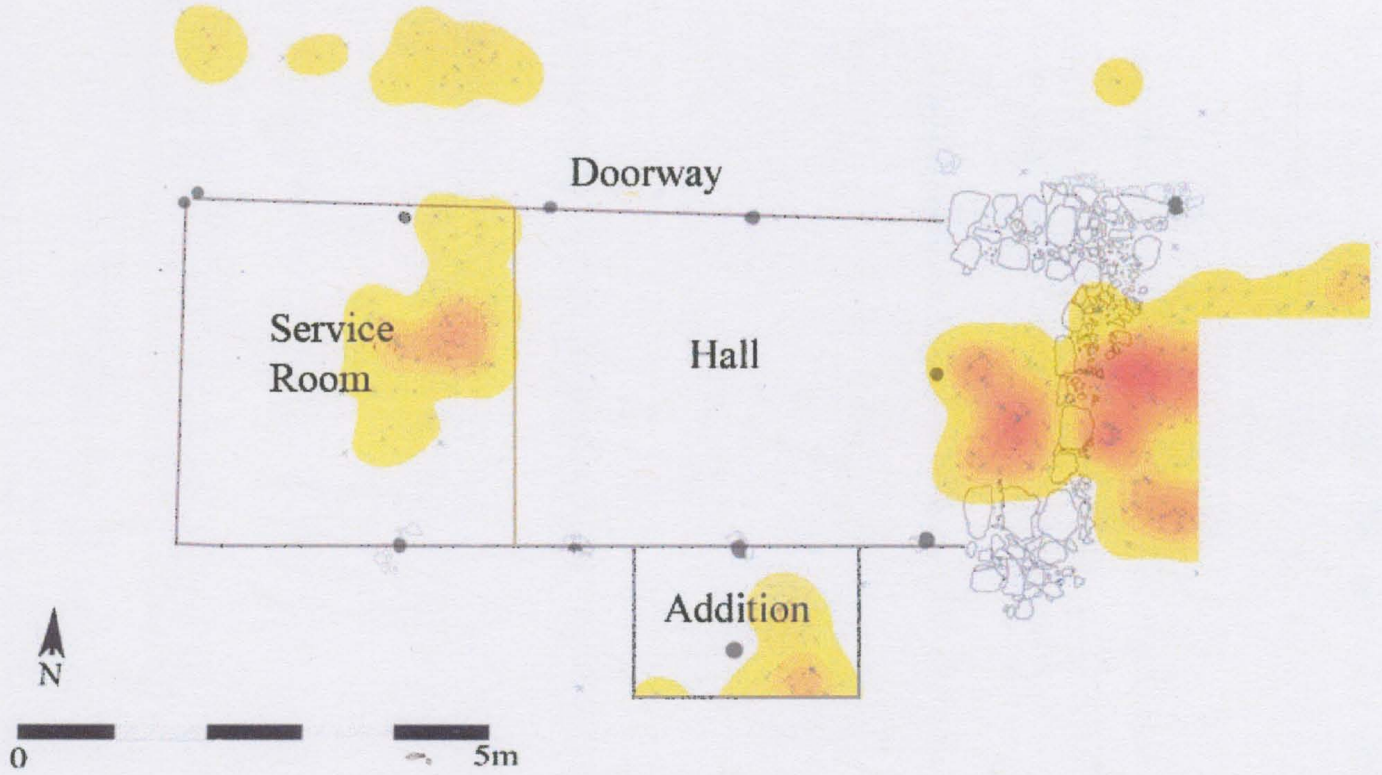


Figure 6.2. Architectural Layout According to Stratigraphy and Artifact Densities, Area E, Ferryland.

Notes: The building outlines are approximates. The partition follows the western limit of the earthen floor in the service room.

Yellow indicates one artifact per 100cm^2. Red indicates at least three artifacts per 100cm^2.

room was unheated and the presence of fragments on the floor from a Merida-type jug, North Devon gravel tall pot and candlestick, a Brown stoneware bottle, Westerwald tankards and several glass wine bottles suggests that this portion of the building was used as a buttery for food and drink storage. The sleeping quarters were most likely located on a second floor or loft possibly accessed by a straight flight ladder.

Both the service room and linhey had earthen floors uncovered in the stratigraphic record. Despite intermittent sweeping, mixed refuse tended to accumulate on earthen floors. For example, the parlour floor (Event 101b) contained fragments of charcoal and artifacts. Perhaps as a way to clean up, a new earthen floor (Event 488a) was laid sometime following 1730 (date calculated from smoking pipe assemblage). No such earthen floor was revealed beneath the in-situ demolition layer in the main hall suggesting that it had a planked floor, installed perhaps as a key feature to facilitate the cleaning of a space often used for entertaining. If the main hall did indeed have a wooden floor, the lack of planks and in-situ nails uncovered suggests that the site was scavenged before the house was torn down. The main hall and service room were most likely divided by a partition. Figure 6.2 illustrates an approximate location of the partition in relation to the western limit of the service room's earthen floor.

6.3 Discussion

6.3.1 Intercontinental Differences

During the vital years of settlement in the American colonies, architecture was marked by a great diversity of house forms as builders experimented with many differing styles remembered from their mother country (Deetz 1996:102; Pocius 1982:219). After generations of altering Old

World forms and adopting new ones, a homogenous building tradition emerged. In Newfoundland, however, the opposite was true; a small number of house types were transferred from the old country and eventually developed into numerous forms (Pocius 1982:217).

The vernacular architecture of early Newfoundland employed forms and techniques familiar to the settlers, predominantly from the West Country of England and later the southeast of Ireland, but their appearance was altered by the physical environment and readily available materials on the island. The eighteenth-century wooden structure with a stone gable-ended chimney and a direct entryway uncovered in Area E, Ferryland is a perfect example. The stone-ender chimney was the norm in the west and north of England and the direct entryway was quite common throughout Britain during the early modern period (Stachiw 2001:23; Ameri 1997:8; Brunskill 1982:80). The common practice of building in wood in Newfoundland, however, had no direct counterparts in the West Country where houses were mostly built from stone. A wood building tradition did exist in other parts of England (e.g. West Anglia), the Continent and the Maritimes (Gerald Pocius, personal communication 2001, 1982:219). Discovering that building in stone was too time-consuming, labour intensive and expensive, Newfoundland colonists may have opted to build in wood as it was cheaper and readily available. They possibly acquired knowledge of working with wood from such transients as sailors and shipbuilders, or from craftsmen sent to the island such as carpenters and masons (Gerald Pocius, personal communication 2001; Isham and Brown 1895:13). Early Newfoundland vernacular architecture, therefore, was based on Old World house forms altered by the physical circumstances encountered on the island.

6.3.2 Longevity

In the New World, the post-in-ground form of construction outlived its antecedents in Britain, and was commonly chosen by colonists as the quick, cheaper and easier to repair form of building. Archaeological investigations in the colonies have revealed that the average post-in-ground building lasted roughly 10 to 15 years without any major repairs (Brown 1998:102; Carson et al. 1981:150). Although perhaps intended as impermanent structures, with regular maintenance and proper repairs, these low-cost buildings could stand for centuries (Wrathmell 1984:33).

Early colonists arriving in Newfoundland were met with an harsher environment, lack of skilled builders and economic limitations, which most likely led to the common practise of building in wood. Settlers uncertain of their length of stay on the island possibly opted for quick and easy earthfast homes. Setting the house frame on unrelated earthfast supports, as was observed in Area E, Ferryland, however, suggests the intention of a lengthy stay. As the posts were subject to decay, independent posts permitted easy repairs or replacements which extended the life-span of the house and reduced construction costs (Carson et al. 1981:153).

6.3.3. Social Status

Archaeological investigations in England and inventories from the early modern period revealed that certain architectural features such as the overall size of the house and number of rooms within could indicate the status of the residents (Hall 1991; Machin 1994:28-32). In England, two roomed structures were common amongst those of husbandman status; most homes of the minor gentry, or yeomen, had one or two more rooms than those belonging to husbandmen or

lesser farmers; and most gentlemen had larger homes than yeomen (Machin 1994:30; Crossley 1990:34). In the American colonies during the seventeenth and eighteenth centuries, however, houses were unreliable guides to the owner's true social standing. In the Chesapeake, prosperous colonists lived in crudely constructed one- or two-room dwellings and even elite planters did not build extravagant homes (Carr and Walsh 1988:136). Large multi-roomed estates were not typically built until the rise of a consumer society practising conspicuous consumption in the mid-eighteenth century (Potter Jr. 1992:118; Yentsch 1994:46-47).

The structure (excluding the linhey) in Area E, Ferryland contained at least two rooms and had a square footage of roughly 49.6 square metres (525' sq.). Compared to standard measurements from eighteenth-century English house pattern books, the structure in Area E would be classified as a small house, and the number of rooms would allude to the owner being of husbandman status. Compared with a contemporaneous Ferryland dwelling of a middling family, the Area E structure was almost twice as large (Hranka 2007). Interestingly, the Area E building was similar in size to seventeenth-century dwellings owned by middling planters (Crompton 2000; Nixon 1999b). This evidence, therefore, suggests that in eighteenth-century Ferryland structure size did not allude to the social status of its residents.

6.4 Conclusion

Excavations in Area E, Ferryland, revealed the remains of an eighteenth-century earthfast timber dwelling with a stone gable-ended chimney and timber linhey. The structure appears to have had a two-room floor plan divided by a partition, the larger room had a planked floor and was heated by the stone fireplace occupying the eastern end wall. The unheated service room and later

linhey both had earthen floors and were employed as storage space. The sleeping quarters were possibly located on the second floor or loft accessed by a straight flight ladder. The structure had at least one glazed window and the main entrance was most likely positioned in the middle of the north wall. The use of timber in the construction of the house suggests an adaptation to the Newfoundland environment, a lack of skilled builders and/or economic limitations. As earthfast supports perished easily, the fact that the structure stood on unrelated supports, which could be easily repaired or replaced thus extending the life-span of the structure, suggests some forethought in the construction of the building and the intent for a lengthy stay. The dwelling measured roughly 4.6 m by 10.8 m (15' by 35') and is comparative in size to seventeenth-century dwellings owned by middling residents.

Chapter Seven
The Ceramic Assemblage

7.1 Introduction

Ubiquitous items on archaeological sites, ceramics can provide insight into living conditions, lifestyles, and domestic rituals of historic communities. The following chapter concerns the ceramics recovered from Area E and begins by discussing the methodology behind quantifying and classifying the ceramic assemblage. Following that, the collection is presented according to waretype grouped into coarse earthenwares, tin-glazed earthenwares, stoneware, porcelain and refined earthenwares. Each individual ceramic type is then presented in three sections. The first section provides a description of the ceramic ware, the second describes the ceramic in the Area E assemblage and the final part briefly discusses the ceramic type and its implications. Lastly, the ceramic collection is examined as a whole to determine a date range for the assemblage and to seek information concerning trade patterns, functional use of the assemblage, and foodway patterns.

7.2 Quantification and Classification

Archaeological investigations in Area E yielded at least 2,944 ceramic sherds; the actual count is higher as the approximate total does not take into account groups of sherds given one catalogue number. Of this total, only those ceramics originating from strata directly related to the eighteenth-century structure and their crossmends, including those from disturbed zones, were analyzed in this chapter. Finds recovered from disturbed contexts, that date to the eighteenth century and may be related to the structure, and thus provide valuable information on the time period, are included in Chapter 12. Smoking pipes were treated as a separate category and described in Chapter 9.

The ceramic sherds were first grouped according to waretype based on their fabric, surface treatment (glazed or unglazed) and decoration, and then identified. Next, mending and crossmending of fragments was conducted. Surface treatment and decoration were once again analyzed in addition to general shape, dimensions and, if applicable, rim and base-form to assign vessel form. To allow for comparisons with previous work undertaken on other Ferryland collections (Pope 1986; Crompton 2001; Nixon 1999a), forms were assigned based on the Potomac Typological System (Beaudry et al. 1988), commonly known as POTS. Using both documentary and archaeological evidence, Beaudry et al. (1988) examined the form and function of vessel types present in the seventeenth-century Chesapeake to establish a systematic descriptive ceramic typology. Although the ceramic collection from Area E dates to the eighteenth century, POTS offered a good starting point by providing a basic morphology. A few additions needed to be made to adapt the typology to eighteenth-century Newfoundland and account for the vessel forms available to the society at that time. With the rise in popularity of tea drinking during the early eighteenth century, the teapot had to be added as a new vessel form, and the cup category had to be amended to include the teacup. A teapot is a slightly bulbous vessel with a spout, a handle and a lid that came in a variety of sizes and was used for serving predominantly tea, but also coffee (Figure 7.1). During the eighteenth century, teapots were commonly part of a set, which included a tray and several teacups, small drinking vessels of less than a pint in capacity (Diderot 1771:Fayancerie Planche I). Teacups occur in porcelain, stoneware and refined earthenware and can be handled or handless. Another vessel form that needed to be added to the morphology was the tall pot, a concavo-convex vessel of baluster form with a flared mouth used for food storage and shipping butter (Figure 7.2; Pope 1986:130). Possibly used for the potting of fish as well, the tall pot has a diameter to height ratio of about

Figure 7.1. Teapot. A slightly bulbous vessel with a spout, one handle and a lid used for serving tea. (Detail from Diderot 1771:Fayancerie Planche I)

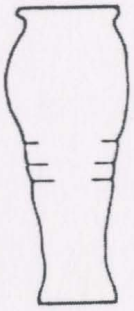


Figure 7.2. Tall pot. A concavo-convex vessel of baluster form with a flared mouth used for food storage and shipping. Scale 1:8 (Detail from Pope 1992:420).

0.5:1. Tall pots occur in coarse earthenwares only. The punch bowl category was also expanded to include both hemispherical and straight-sided vessels with plain rims in refined earthenwares, stonewares, porcelain and delftware. Lastly, although the goal of POTS was to venture away from the generic "holloware" and "flatware" categories, due to the incompleteness and highly fragmentary state of the Area E assemblage, these two categories needed to be reintroduced to allow for a better analysis.

The ceramic vessels were also grouped into functional categories modified from Beaudry et al. (1988) and Yentsch (1991). As evidence exists illustrating the custom of individuals drinking directly from punch bowls (Figure 7.3), punch bowls of one pint or less in size were added to the Individual Beverage Consumption category. The tall pot was added to the Food and Drink Storage category and the teapot was added to the Serving Beverage Consumption category. Table 7.1 outlines the modified functional divisions for ceramic vessel forms.

The minimum vessel count (MNV) was calculated to determine the minimum possible number of vessels used in the eighteenth-century structure as well as to ensure reliability, consistency and allow for comparisons with previous or future work on other Ferryland collections. It should be emphasized that the individual catalogue number assigned to a sherd or sherds was never intended to equal the identification of a vessel. Using waretype, vessel form and pattern design as determining factors, all sherds that appeared to originate from the same vessel, including those that did not mend, were grouped together. If crossmends existed between soil layers, a conservative MNV was calculated where all the related layers were treated as one single layer. For each vessel a diagnostic piece such as a handle or rim was drawn. Table 7.2 outlines the

Figure 7.3. *Night Amusement*, ca.1760. This engraving clearly shows the custom of individuals drinking directly from a small punch bowl. Engraving published by Robert Sayer, London, copy in P. Dunning Collection.

Table 7.1. Functional Division of Ceramic Vessel Forms.

Food Processing (Cooking and Dairying)	Food and Drink Storage
Pipkin	Storage Pot
Pudding Pan	Jar
Bowl	Bottle
Milk Pan	Tall Pot
Collander	

Beverage Consumption		
Individual (1 pint or less)	Communal or Individual	Serving
Cup	Mug	Pitcher
Mug	Jug	Ewer
Jug	Drinking Pot	Punch Bowl
Footed Bowl	Flask	Large Jar
Punch Bowl		Sillabub Pot
		Teapot

Food Consumption	
Stews/Pottages/Soups	Solid Food Consumption and Serving
Porringers	Caudle Pots Basins
Soup Plates	Basins
Small Bowls	Plates
	Dishes
	Saucers
	Salts

Health/Hygiene	Other
Gally Pots	Chaffing Dish
Chamber Pots	Candlestick
Basins	Betty Lamp

Notes: Modified from Beaudry et al. (1988) and Yentsch (1991).

Table 7.2. Minimum Number of Vessels by Ware and Vessel Form.

Source and Type	No. of Sherds	Min. No. of Vessels	% of MNV	Forms/Comments
China				
Porcelain	13	4	7	1 cup, 2 saucers, 1 bowl
Portugal				
Merida-type	31	4	7	1 jar, 2 jugs, 1 holloware
Germany				
Westerwald	170	11	21	2 jugs, 8 mugs, 1jug/mug
France				
Rouen Brown	2	2	4	1 bowl, 1 bowl/pitcher/teapot
England				
North Devon Smooth	26	2	4	1 bowl, 1 bottle/jug
North Devon Gravel	9	4	7	1 milk pan, 1 pipkin, 1 tall pot, 1 candlestick
South Somerset-type	4	2	4	1 plate, 1 cup
Nether Stowey	4	1	2	1 bowl
Bristol/Staffordshire Combed	1	1	2	1 unknown
Bristol/Staffordshire Mottled	4	1	2	1 mug
Brown Saltglazed Stoneware	3	2	4	1 bottle, 1 bottle/jug
White Saltgalzed Stoneware	61	10	19	4 mugs, 1 cup, 1 pitcher, 1 punch bowl, 3 saucers, 1 plate,
Delftware	2	2	4	1 plate, 1 punch bowl
Agateware	11	1	2	1 punch bowl
Redware	2	2	4	1 mug, 1 bowl
Creamware	1	1	2	1 plate
Whiteware	1	1	2	1 plate
Unindentified	5	2	4	1 storage pot, 1 unknown
Total	350	53	101*	

Notes: * Totals 101% due to rounding.

MNV for each ware and vessel form found in the Area E ceramic assemblage.

7.3 Coarse Earthenware

The following is a brief description of the various waretypes included within the coarse earthenware category.

7.3.1 Merida-type Ware

7.3.1.i Description

Early medieval Merida-type wares tend to have a dark brown core and irregular surface, whereas post-medieval pieces are harder, finer and range in colour from brick-red to beige pink (Gerrard et al. 1995:288; Hurst et al. 1986:69). The fabric is tempered with coarse sand consisting of fragments of orthoclase felspar, quartz and muscovite giving the ware a glistening effect (Gerrard et al. 1995:288). Undecorated and unglazed vessels are most common, but burnished, incised or painted pieces have been recovered (Hurst et al. 1986:70). Wares exhibiting a thin irregular green glaze on the interior, which began to be applied in the sixteenth and seventeenth centuries, or an off-white or brick-red slip on the exterior have also been found, the latter of which are quite uncommon (Pope 1986:110, 2000; Gerrard et al. 1995:288). Vessel forms include bowls, dishes, chafing dishes, plates, jars, olive jars, wide necked jugs, costrels, pans, lamps, candlesticks and vases (Hurst et al.1986:69-70).

7.3.1.ii Area E Assemblage

Four Merida-type vessels were recovered from Area E. The first is a jar with a straight down-turned rim (Figure 7.4) designated as a Type 1 neck form by Crompton (2001:96). This reddish

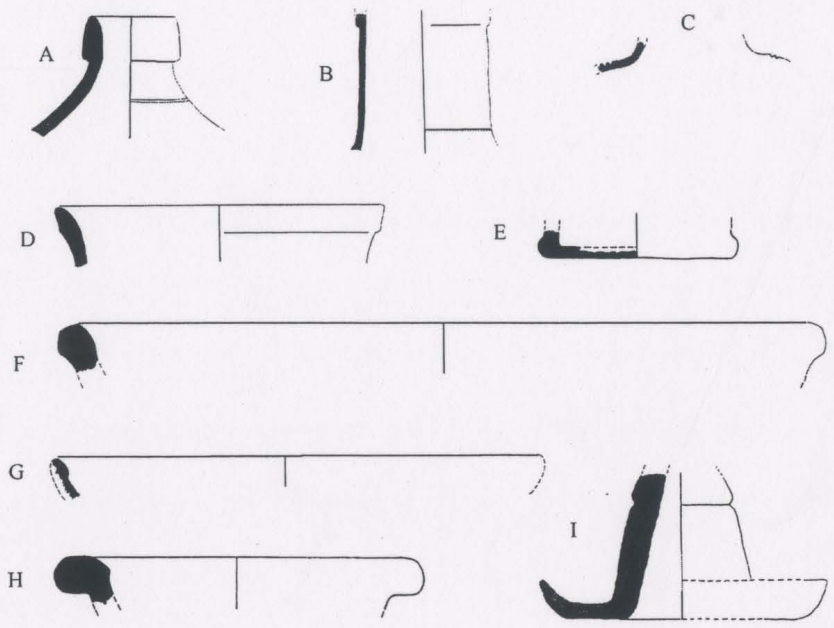


Figure 7.4. Profiles of Coarse Earthenwares from Area E, Ferryland.

Notes:			
	A	Merida-type jar	69028, 401205, 401277, 401279, 406812, 406813
	B	Merida-type jug	394107a,b,e,f
	C	North Devon Smooth jug/bottle	397949
	D	North Devon Smooth bowl	397734a-c, 400734
	E	Brown Mottled Ware mug	392722a
	F	North Devon Gravel milk pan	62018
	G	North Devon Gravel pipkin	392736
	H	Nether Stowey bowl	400281
	I	North Devon Gravel candlestick	397852, 400001

pink vessel has a white slip and is decorated with incised lines beneath and running parallel to the lip. The second vessel is a vertically burnished brick-red holloware container with a straight neck (Figure 7.4). It is most likely a jug similar to one recovered from Plymouth, England (see example 86 in Hurst et al. 1986: 70-71). The neck is fairly wide with a diameter of about 7 cm, a common feature of unglazed Merida-type jugs (Hurst et al. 1986:74). The third vessel is represented by four mendable, buff pink, bulbous body sherds with a brownish green lead glaze on the interior. The sherds are burnt as if they were thrown into a fire. The presence of the interior glaze indicates that the vessel was intended to secure a liquid and the bulbous form of the body sherds suggests that this vessel may have been an ovoid jug, the most common form for green-glazed Merida-type wares (Hurst et al. 1986:74). The last vessel is represented by a single, thin pinkish red body sherd with a very sandy green glaze on the interior suggesting this piece is from a holloware vessel.

7.3.1.iii Discussion

The production of Merida-type Wares began in Roman times and has been recorded in a variety of places throughout Spain and Portugal (Williams 1984:145). Since the medieval period, the industry has been centralized in Alentejo and elsewhere in Portugal (Hurst et al. 1986:69; Peter Pope, personal communication, 2007). Merida-type standing costrels were first imported into Britain and Ireland in the thirteenth century; a variety of additional forms became available in the sixteenth and seventeenth centuries (Gerrard et al. 1995:288). In comparison to other medieval Spanish pottery, the distribution of Merida-type wares in the British Isles and Newfoundland was quite extensive during the early modern period (Gerrard et al. 1995:292; Barry Gaulton, personal communicaton, 2007). Considered as low-status utilitarian ware, Merida-type wares were

commonly used by sailors or merchants who had acquired them from Spaniards (Hurst et al. 1986:69; Kelso and Straube 2004:135). The existence of this ware on colonial sites such as Ferryland and Jamestown does not necessarily indicate the presence of Portuguese crews, but rather that a portion of the English maritime population had trading access to Portugal (Pope 2003:127).

7.3.2 North Devon Earthenwares

7.3.2.i Description

North Devon coarse earthenwares come in a variety of wares: Smooth, Gravel Temper, Calcerous Temper and White Bodied (Allan 1984:148). Only the former two are present in the Area E ceramic assemblage and will be further discussed. North Devon Smooth has a very fine clay fabric with a few white or gray quartz inclusions (Allan 1984:148). In cross section, it is buff orange with a gray core. White slips are often present, and glazes come in olive green, brown and yellow. Dishes are frequently decorated with geometrical or floral designs using the sgraffito technique, but no such sgraffito wares were recovered from Area E (Grant 1983:58-59). This was the case with deposits dating to the eighteenth century in Williamsburg, Virginia as well (Watkins 1960:38-39). Vessel forms include dishes, bowls, jugs, mugs, cups, porringers, tall jars, jars and chamber pots (Grant 1983:136-137).

North Devon Gravel has a very coarse fabric abundant with quartz, quarzite, gravel and/or mica (Allan 1984:148). In cross-section, it is often pinkish orange with a gray core. When vessels are glazed, the olive green or brown glaze is often thick and inconsistent. Beige slips have also been found on some vessels. North Devon Gravel comes in a variety of forms such as pipkins, chafing

dishes, tall pots, milk pans, bowls, mugs, skillets, candlesticks and chamber pots (Grant 1983:136-137).

7.3.2.ii Area E Assemblage

Two North Devon Smooth vessels are in the ceramic assemblage from Area E. The first is a pink-bodied bowl with a clear lead glaze on the interior and an everted flat rim with a diameter of 16.5 cm (Figure 7.4). The second vessel, severely burnt and represented by sixteen neck and bulbous body sherds, has a grey fabric and a white slip on the interior. An olive green glaze was applied to both the exterior and interior of the vessel and at least two incised lines run along the shoulder of the piece, all giving the vessel a more pleasing appearance and thus suggesting that it was intended as tableware (Figure 7.4). The vessel is likely either a jug or a bottle, with a body diameter of about 18 cm.

Four North Devon Gravel vessels are in the Area E ceramic assemblage. The first is a milk pan with an olive-green lead glaze on the interior and an everted rim, diameter of 36 cm and identical to one uncovered in Area C, Ferryland (Figure 7.4; Area C catalogue numbers 51299 and 57407a). The second vessel is represented by an incomplete, unglazed inverted rim with a diameter of about 25 cm (Figure 7.4). The rim form resembles that of a North Devon gravel tempered pipkin recovered in Exeter (refer to example 2405 in Allan 1984:Figure 107). The third vessel is a heavy-duty holloware vessel with a 15 mm thick body. An interior olive glaze suggests that this vessel was intended to store liquids and is most likely a tall pot, a common vessel in seventeenth-century Ferryland collections. The last vessel is a brown lead glazed candlestick with a "bell bottom" drip tray (Figure 7.4). Copied from silver, pewter or brassware

candlesticks of this period, plain North Devon Gravel candlesticks were relatively cheap and used as oil lamps or to hold short-stemmed chambersticks (Grant 1983:57; Allan 1984:139; Noël Hume 1970a:97). In some instance fish oil was used as a fuel source (Grant 1983:57).

7.3.2.iii Discussion

North Devon earthenwares developed in Bideford, Barnstaple, Fremington and Great Torrington in the fifteenth and sixteenth centuries (Allan 1984:130; Grant 1983). There was no overland market for North Devon wares outside the West Country at this time and as it was uneconomical to compete against other earthenware production centres in the vicinity, sea-borne trade became vital (Grant 1983:83). During the seventeenth century, North Devon wares began to be widely exported to neighbouring ports of Swansea, Plymouth, Waterford, Cork, Dublin (Grant 1983:78, 87), the American colonies (Watkins 1960:58; Noël Hume 1970a:133) and Newfoundland (Grant 1992; Pope 1986). North Devon wares recovered in Newfoundland most likely arrived directly from the North Devon ports of Barnstaple and Bideford (Allan 1984:130). During the eighteenth century, the failure of the North Devon potteries to modernize their wares and keep up with an increased market demand for finer wares resulted in a gradual decline of the industry (Grant 1983:131-134; Watkins 1960:59). Around 1720, Staffordshire potteries had captured North Devon's earthenware export market and by 1760, the production of North Devon gravel-tempered wares ceased (Weatherill 1983:18; Watkins 1960:58-59).

7.3.3 South Somerset-type

7.3.3.i Description

South Somerset-type ceramic has a hard smooth fabric tempered with hematite, fine quartz and

fossil limestone (Temple 2004:26-28). Most likely due to variable firing conditions, the fabric comes in a wide range of colours such as pinkish beige, greyish pink and orange. Glazes are generally uniform and thin; colours include green, yellow and orangey red, the latter was common on earlier pieces. Decorated slipware vessels exhibit sgraffito patterns similar to pottery from North Devon, Bristol and Staffordshire. Common eighteenth-century vessel forms include dishes, cups, bowls, pots, pipkins, plates, mugs and chafing dishes (Allan 1984:152).

7.3.3.ii Area E Assemblage

Two South Somerset-type vessels are in the Area E ceramic assemblage. The first is a plate with an orange coloured fabric, a spiral sgraffito pattern on its face and an estimated rim diameter of 28 cm. The second vessel has a thin body and a brown lead glaze on both the interior and exterior over a pinkish orange body. The thickness and body glaze suggest that this vessel may be a cup (refer to example 7/14 in Coleman-Smith 2002:145-146).

7.3.3.iii Discussion

Since the fourteenth century, South Somerset-type pottery has been produced in the county of South Somerset, namely in kilns at Donyatt (Temple 2004:26). During the eighteenth century, in addition to Donyatt, production sites included Nether Stowey, Dunster and Blue Anchor in West Somerset, and Verwood in Dorset (Temple 2004:24-25, 34-36). The typical orange-red glaze began to be applied in the seventeenth century and new, more intricate decorative techniques also emerged. The "spiral" sgraffito decoration became quite popular at this time (Allan 1984:135). In the next century, a new range of forms, fabrics and glazes were introduced. The common pink and red fabrics were replaced by buff-coloured wares, and the brown and orange-red glazes were

replaced by green glazes with orange blotches (Allan 1984:135). As competition increased from other ceramic production centres, South Somerset potters began to emulate the more popular ceramic wares. In the 1720s, in imitation of wares from Bristol and Staffordshire, the earlier spiral-style sgraffito design was replaced by a combed sgraffito decoration (Allan 1983:135, 151-152; Pearson 1979:187). The Donyatt technique entailed covering the red bodied fabric with a white slip and then trailing an iron enriched red slip over the white slip using a feather or comb (Pearson 1979:193). Due to fabric and decoration, the vessels present in the Area E assemblage appear to date to the seventeenth century.

Compared to other eighteenth-century ceramics, South Somerset-type wares were generally utilitarian in nature, not as well made, and thicker and heavier due to the type of clay used and industrial technology employed (Pearson 1979:187). In the end, the added cost of transporting the heavier vessels and competition from finer wares from other centres, limited South Somerset-type ceramics to the local market and by the mid eighteenth century the industry diminished greatly (Pearson 1979:187). Large quantities of this coarse earthenware have been recovered at Tauton, possibly a major marketing outlet for this ware, as well as at Bristol and Exeter (Allan 1984:130, 132-133; Pearson 1979:187). In Newfoundland, relatively low frequencies of South Somerset-type ceramics, probably shipped through Plymouth, have been recovered from various seventeenth-century sites (Temple 2004; Crompton 2001; Nixon 1999a; Pope 1986; Mills 2000).

7.3.4 Nether Stowey

7.3.4.i Description

Often confused with South Somerset-type, Nether Stowey frequently has a coarser harder fabric

which varies from buff to orange to dark grey in colour (Temple 2004:29; Good 1987:35). Sand inclusions are common, and some wares also possess hematite or clay pellet inclusions (Good 1987:35). Glazes are either yellow, brown or green and decorative techniques include sgraffito patterns similar to those displayed on North Devon or South Somerset-type ceramics (Temple 2004:29-30). Common vessel forms for Nether Stowey include dishes, bowls, milk pans, storage jars and chafing dishes (Temple 2004:29).

7.3.4.ii Area E Assemblage

One burnt bowl, possibly of Nether Stowey provenance, was uncovered in Area E (Figure 7.4). The vessel has an interior brownish orange glaze over a reddish orange fabric. The rim, 33 cm in diameter, is everted and resembles Allan's type 1C bowl (1984:Figure 65).

7.3.4.iii Discussion

Pottery production in Nether Stowey was underway by the sixteenth century and continued into the eighteenth century (Temple 2004:29). Bristol acted as the primary coastal market for Nether Stowey wares and the vessel uncovered in Area E was most likely shipped through this port (Temple 2004:30,143). The similarity in glazes and spiral or straight-style sgraffito decorations with wares from South Somerset, and the wavy line-style sgraffito decoration observed on North Devon vessels suggests that Nether Stowey had a strong relationship with both production centres (Temple 2004:30). One explanation for these similarities is that during the early modern period potters frequently moved between potteries taking with them knowledge of certain techniques and decorative patterns, which they continued to reproduce. Secondly, as was seen with the South Somerset potteries, to compete with other production centres, Nether Stowey potters may

have begun to emulate finer wares in an attempt to make their wares visually similar.

7.3.5 Bristol-Staffordshire Combed Slipware

7.3.5.i Description

Bristol-Staffordshire combed slipware is a buff- or yellow-bodied, fine chaulky ware with a black, brown or red under-slip and a white top-slip which has been trailed, feathered or combed through creating alternating black and yellow stripes (Erickson and Hunter 2001:112; Pearson 1979:196). In rare instances, the brown slip was trailed directly on the buff body to obtain the "bumblebee-like" effect (Kershaw 1987:62). The overall glaze is uniform, smooth and clear to pale-yellow in colour (Noël Hume 1970a:134). Pieces were initially wheel-thrown and then began to be press-moulded during the early eighteenth century (Allan 1984:128). Production of press-moulded vessels exhibiting Bristol-Staffordshire combed slipware continued until at least 1775; wheel-thrown vessels appear to have a terminal date of ca.1760 (Pearson 1979:201-204). Vessel forms include cups, mugs, plates, dishes, saucers, bowls, porringers, candlesticks and pots (Pearson 1979:201, 204).

7.3.5.ii Area E Assemblage

A single fragment of Bristol-Staffordshire combed slipware was recovered from Event 498. The vessel form of this tiny yellow-bodied piece could not be identified.

7.3.5.iii Discussion

Combed slipware began to be produced in both Bristol and Staffordshire ca.1680 according to excavations in Worchester (Morris 1980) and North Petherton, Somerset (Pearson 1979).

Although it is difficult to distinguish between wares from Bristol and Staffordshire, evidence suggests that by the late 1720s, not only did Staffordshire wares outnumber those from Bristol, but they were more widely distributed (Allan 1984:128-129). Later pieces were most likely made in "smaller country potteries which continued to operate in the Midlands throughout the eighteenth century and beyond" as yellow slipware production can not be documented in Stoke-on-Trent beyond ca.1760 (Kershaw 1987:63). During the seventeenth and early eighteenth centuries similar glazed wares were produced in Buckley, North Wales and Sheffield, Yorkshire (Pearson 1979:206).

Intended mostly for the middle and poorer classes as well as for tavern use, Bristol-Staffordshire combed slipware has been recovered from a variety of eighteenth-century sites in England such as Exeter, Somerset and from a deposit dating between 1720 and 1750 in Portsmouth (Alan 1984; Pearson 1979; Fox and Barton 1986:145-146). Across the Atlantic, combed slipwares were imported into the American colonies most likely via the ports of Bristol and Liverpool until the 1770s (Allan 1984:129; Noël Hume 1970a:134).

7.3.6 Bristol-Staffordshire Brown Mottled Ware

7.3.6.i Description

Bristol-Staffordshire brown mottled ware, also known as Treacle brown-glazed ware and Manganese-glazed ware, is a wheel-thrown, cream or pale-buff earthenware normally with quartz, dark greyish sand and iron inclusions, the latter of which often bled into the brown lead glaze and created a mottled effect (Gooder 1984:173; Pearson 1979:206). In instances when the fabric is not buff or cream, a white slip was applied (Gooder 1984:173). Vessel forms include

cups, mugs, two handled drinking pots, chamber pots, dishes, saucers, jars and porringers (Pearson 1979:207; Kershaw 1987:63; Gooder 1984:174-181; Barker and Holland 1986:101-102).

7.3.6.ii Area E Assemblage

A partial base from a Bristol-Staffordshire Brown Mottled ware mug was recovered from Event 488b (Figure 7.4). The base diameter is 10 cm and the fabric is buff with minute black and red hematite inclusions. Tavern mugs often possessed applied or impressed ale-measure marks bearing the initials of the reigning English monarch (Williams 2003:121). No such mark was present on the Area E vessel.

7.3.6.iii Discussion

Despite mottled ware production beginning around 1680, archaeological excavations in Britain suggest that these wares did not gain popularity until ca.1700-1720, a result perhaps due to differing consumer tastes or low production numbers (Allan 1984:128; Pearson 1979; Kershaw 1987; Williams 2003:121). Bristol-Staffordshire Brown Mottled ware was manufactured to at least the end of the eighteenth century (Kershaw 1987:63).

Although it is sometimes difficult to distinguish between Bristol-made and Staffordshire-made pieces, differences have been noted. Tankards from Staffordshire often exhibit reeding at the juncture of the wall and the base, whereas Bristol tavern mugs have handles that are a little more angular and some exhibit a ridge running down their length (Pearson 1979:204, 206). Just like the Bristol-Staffordshire combed slipware, mottled wares were possibly shipped overseas through

Bristol and Liverpool.

7.3.7 Unidentified Ware

7.3.7.i Description

Five fragments of an unidentified ware were uncovered in Area E. The fabric is porous, buff pink in colour and is coated with a clear lead glaze. The body contains possible hematite and iron inclusions, the latter having bled into the glaze creating a mottled or runny effect. Both vessels are crude wheel-thrown pieces.

7.3.7.ii Area E Assemblage

The five fragments uncovered belong to two holloware vessels. The first appears to be a storage pot similar to a coarse earthenware piece uncovered in Stafford (refer to examples 73 and 74 in Kershaw 1987:63, 81). The second vessel's form is unidentified, but may be the same.

7.3.7.iii Discussion

The presence of iron scaling in the body is reminiscent of Bristol-Staffordshire Brown Mottled ware. Although an exact centre and date of production for these pieces cannot be identified, the iron staining and buff body suggest that the vessels may have been produced in Bristol (Pearson 1979:206). Staffordshire buff fabric is generally iron free (Pearson 1979:206).

7.4 Coarse Stoneware

Vessels of both German and English origin are present in the coarse stoneware assemblage.

7.4.1 Westerwald

7.4.1.i Description

Westerwald is a hard smooth stoneware with a thin transparent salt-glaze; fabric colour can vary from light grey to buff (Gusset 1980:149; Brandon 2006). To enhance decoration and provide colour, potters' often applied cobalt blue or, following ca.1665, manganese purple staining to the exterior of the vessels (Noël Hume 1970a:281). Initially, decorative techniques were similar to Raeran vessels, but by the mid-seventeenth century new designs such as relief moulded rosettes and flowing foliage were introduced (Hurst et al. 1986:222). By the turn of the century, vessels also began to bear a medallion with the cipher of the reigning English monarch: at first WR for William III (1694-1702), then AR for Queen Anne (1702-1714) and lastly GR for either George I (1714-1727), George II (1727-1760) or George III (1760-1820) (Gusset 1980:153-154). During the first quarter of the eighteenth century, simplified animal and floral motifs were adopted, decorations were mostly incised or stamped, and necks and bases were often decorated with cordoning (Gusset 1980:170; Noël Hume 1970a:281). Later wares exhibited geometric patterns including circles, eyes, lozenges, rectangles, triangles and scrolls (Gusset 1980:170). Following the adoption of the Standard Ale Quart in 1700, some eighteenth-century pieces bound for the English market also contained a capacity number that was either painted, stamped or scratched into the body (Gaimster 1997a:119; Noël Hume 1970a:282). Capacity measurements for eighteenth-century straight-sided Westerwald tankards may in some instances be obtained indirectly by counting the number of blue bands of cordoning around the rim or base: three blue lines indicate two quarts, two blue lines indicate one quart and a single line is less (Table 7.3; Noël Hume 2001:103). Rare examples also bear the makers' initials and the date the mould was cut (Noël Hume 1970a:282). Common vessel forms include small and large biconic jugs, bottles,

Table 7.3. Unmarked Capacity and Size of Westerwald Mugs in the Area E Ceramic Assemblage.

Identification Number	Vessel Diameter in Centimetres	Number of Blue Bands of Cordoning	Capacity (ml)	Catalogue Number
1	9	1	552	66476, 392744a, 392743, 397958, 401936,
2	12	2	1155	62983a, 62983d, 62983k
3	10	2	1155	54199b, 60759, 63911, 65983
4	8.5	1	578	60243, 63206
5	12	2	1155	404623, 406829
6	-	-	-	406828
7	10	2	1155	63720a, 63720b, 63720c
8	11	-	1155	400287

Notes: The Identification Number coincides to the order in which the mugs were described in the text. For example, the first mug described is given Identification Number 1.

Vessel capacities are based on vessel diameters and were extracted from Table 4 in Gusset 1980:161, except for the capacity for vessel no. 1, which was calculated using the interior diameter of the vessel (9cm) and the height (11cm).

Converting to imperial measures, 578ml equals 1 pint, and 1155ml equals 1 quart (Gusset 1980:161)

Noël Hume (2001) surmises that the blue bands of cordoning below the rims and above the bases on straight-sided Westerwald vessels allude to the vessel's capacity: three blue lines indicate 2 quarts, two blue lines indicate 1 quart and a single line for less (2001:103). The straight-sided mugs in the Area E ceramic assemblage support this theory.

chamber pots and tankards which were introduced in the early eighteenth century; jars, bowls and porringers have also been discovered (Hurst et al. 1986:222; Gusset 1980:160; Brandon 2006).

7.4.1.ii Area E Assemblage

Eleven Westerwald vessels are present in the ceramic assemblage associated with the eighteenth century structure. All vessels have a grey fabric unless otherwise specified. The first vessel is a biconic jug with an incised floral and animal motif flanked by panels with incised diamonds (Figure 7.5). Cordoning appears on the foot and neck, and blue enamel was applied to bring out the incised decorations. A sprigged medallion with what appears to be a crown surmounted by a fleur-de-lys was recovered and may belong to this jug. The base diameter is 8.5 cm suggesting this is fairly large jug used solely for decanting; smaller biconic jugs were also employed as drinking vessels. The second jug is represented by a body fragment with an incised floral pattern framed by straight lines and blue staining.

Of the eleven vessels recovered, eight are straight-sided mugs. The first mug is incised with a checkerboard pattern picked out in cobalt blue and flanked by cordoning (Figure 7.5). A partial sprigged and unpainted GR medallion surrounded by a sunflower is on the body. The vessel has a base and rim diameter of 9 cm and a height of 11 cm indicating a capacity of 552ml. Another mug possessing a GR monogram encircled by a sunflower has an incised diamond pattern picked out in cobalt blue (Figure 7.5). A similar diamond design uncovered in Louisiana dates between ca.1731 and 1764 (Gaimster 1997a:268). The base diameter is 12 cm suggesting a capacity around 1155ml or 1 quart (Table 7.3). Fragments of this vessel were heated. Another mug with a GR medallion encircled by a sunflower was flanked by incised circles, rings and an animal motif

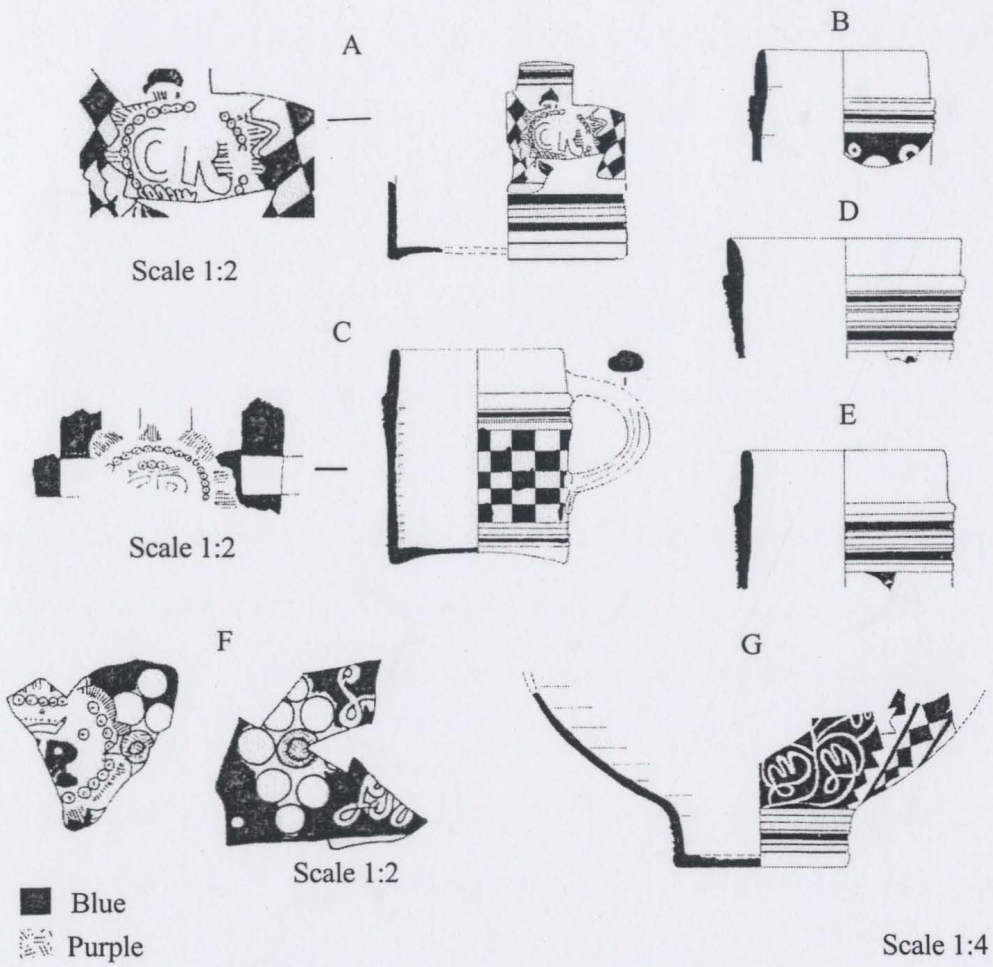


Figure 7.5. Profiles of Westerwald Stoneware Straight-sided Mugs and Biconic Jug from Area E, Ferryland.

Notes:			
	A	Westerwald mug	60326a, 60855, 62095, 62983a, 62985l, 63209a, 63912a
	B	Westerwald mug	60243, 63206
	C	Westerwald mug	66476, 392744a, 392743, 397958, 401936
	D	Westerwald mug	404623, 406829
	E	Westerwald mug	63720a,b
	F	Westerwald mug	54199b, 63911, 65983
	G	Westerwald biconic jug	56457, 62811, 62983, 62985, 62986, 68142, 68586, 69042

(Figure 7.5). Cobalt blue staining was applied to the "GR" cipher and the background of the body; manganese purple fills in a ring. The body is buff in colour with a diameter of approximately 10 cm alluding to a capacity of 1155ml (Table 7.3). The fourth mug recovered is partially heated and exhibits incised rings, ranging in size, and cordoning on the upper body (Figure 7.5). The rim diameter is 8.5 cm suggesting a capacity of about 578ml (Table 7.3). A mug uncovered in Event 101b has a circular geometric motif below multiple cordoning and a rim diameter of 12 cm (Figure 7.5). The sixth mug is buff bodied and exhibits an animal and floral design framed by vertical banding and enhanced by blue cobalt enamel staining. Extensive salt residue is present on the body, a manufacturing defect suggesting that this piece may have belonged to the seconds group. A mug discovered in Event 98 has a floral and animal design below several bands of cordoning (Figure 7.5). This mug has a rim diameter of 10 cm alluding to a capacity of 1155ml. The last mug fragment recovered is a plain, buff coloured rim sherd, 11 cm in diameter, deriving from a tankard about 1155ml in capacity (Table 7.3). A single, tiny buff coloured body fragment with an incised floral and animal motif was also excavated. Due to its thickness, it is believed that this sherd is also tableware and belongs to either a jug or a mug.

7.4.1.iii Discussion

During the 1590s, several immigrant potters' families from Raeren established a stoneware industry in the Westerwald region centred around what is known today as the amalgamated city of Höhr-Grenzhausen (Brandon 2006). Early Westerwald pieces were identical to Raeran vessels suggesting that the potters took their moulds with them, but by the mid seventeenth century new decorative techniques were adopted (Hurst et al. 1986:221). Westerwald wares gained popularity during the first half of the eighteenth century as a result of specialised products, such as teawares,

plates, cups and terrines, in clear imitation of porcelain and faience tablewares (Gaimster 1997a:252). The introduction of cheaper, mass-produced British stonewares in the second quarter, however, prompted Westerwald potters to focus solely on utilitarian wares including beer mugs, large jugs and storage jars. The grey stoneware industry drastically declined during the third quarter of the eighteenth century (Gaimster 1997a:55, 252; Gusset 1980:15,149).

During the seventeenth and eighteenth centuries, Westerwald was so widely exported that pieces have been uncovered in the United Kingdom (Campbell 1993; Allan 1984; Morris 1980; Pryor and Blockley 1978), Africa (Meurer 1974 cited in Hurst et al. 1986:221), the Far East (von Buck 1980 cited in Hurst et al. 1986:221), the American colonies (Kelso and Straube 2004; Hurry 2001; Noël Hume 1970a:280-85, 1997) and within Canada at sites in Newfoundland (Crompton 2001; Mills 2000; Nixon 1999a; Pope 1986) and Nova Scotia (Crowe 1986; Stevens 1979). The discovery of Westerwald vessels in Ferryland does not indicate direct trade with the Rhineland, but rather the practise of redistribution. The presence of vessels exhibiting British monarch ciphers indicate that pieces were being shipped to North America via the English market (Gusset 1980:184). Rhenish stoneware was initially exported to London and then dispersed to various locales; but during the mid seventeenth century direct trade between distinct British regions (e.g. West Country) and the Rhineland increased rapidly (Allan 1984 118-123). Stoneware could, therefore, be shipped to Newfoundland through a number of British ports.

7.4.2 English Brown Salt-glazed

7.4.2.i Description

English brown salt-glazed stoneware has a hard fabric that varies in colour between buff, grey or

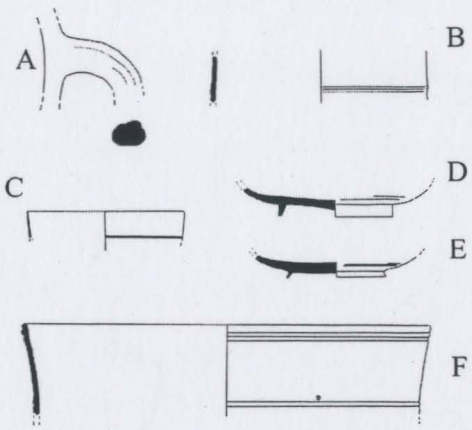
cream and may have minute iron inclusions (Green 1999). The brown colouring was acquired from iron oxide powder coating the vessel. Common forms during the eighteenth century include a wide range of tankards, bottles and jugs; their necks and bases sometimes decorated with cordoning or reeding and their bodies with stamped, moulded or sprigged patterns (Noël Hume 1970a:113; Oswald et al. 1982:19). Tankards of pint or quart capacities were frequently stamped below the rim with crowned initials of the ruling monarch, WR for William III (1694-1702), AR for Queen Anne (1702-1714) and GR for either George I (1714-1727), George II (1727-1760) or George III (1760-1820), indicating that they were made to Crown-prescribed standards of capacity (Noël Hume 1970a:113). The WR mark was the most popular and continued to be used until 1792. Some tankards were also incised with the tavern keeper's name and date or possessed moulded panels depicting the tavern sign (Noël Hume 1970a:113-114). By the 1760s the names and dates were mostly stamped into the body (Noël Hume 1970a:114).

7.4.2.ii Area E Assemblage

Two English brown salt-glazed stoneware vessels are in the Area E assemblage. The first is a handled bottle, buff in colour, with a light pink slip on the interior (Figure 7.6). The second is a holloware vessel, most likely a bottle or jug, grey in fabric colour, with a salmon-coloured slip on the interior.

7.4.2.iii Discussion

Imported German brown salt-glazed stoneware virtually monopolized the English market until 1672, at which time John Dwight of Fulham obtained a patent for the first English stoneware (Oswald et al. 1982:16; Gaimster 1997a:83). With assistance from Nathaniel Parker, possibly a



Scale 1:4

Figure 7.6. Profiles of English Brown and English White Salt-glazed Stonewares from Area E, Ferryland.

Notes:			
	A	English brown salt-glazed bottle	394847
	B	English white salt-glazed mug	65249
	C	English white salt-glazed cup	59797
	D	English white salt-glazed saucer	65577, 66893, 66894, 68450
	E	English white salt-glazed saucer	60750, 60751, 60760
	F	English white salt-glazed punch bowl	397582

tin-glazed earthenware potter in Southwark, Dwight began to market his stoneware commercially (Gaimster 1997a:83). Other potters, ignoring the patent, began to copy Dwight's stoneware ensuing Dwight to bring forth lawsuits against the offenders (Mountford 1974:199). By 1698, Dwight's second patent had expired and the emulators were free to produce brown salt-glazed wares (Mountford 1974:200). In the first half of the eighteenth century, English brown salt-glazed stoneware was being produced in London, Nottingham, Crich in Derbyshire, Burslem and possibly Bristol. The introduction of white salt-glazed stoneware around 1720 resulted in a decline in the brown stoneware industry (Oswald et al. 1982:19, 192).

7.4.3 English White Salt-glazed

7.4.3.i Description

In an attempt to emulate the hardness and fineness of porcelain and delftware, Staffordshire potters began producing a hard, smooth, thick, white bodied salt-glazed stoneware during the first decades of the eighteenth century (Mountford 1974:201). Prior to 1720, English white salt-glazed stoneware tended to have a pale grey or buff body which was dipped in an off-white pipe-clay slip or englobe (Williams 2003:128; Noël Hume 1970b:248-249). Often a brown slip was applied around the rim to conceal the englobe's tendency to pull away from the fabric during the firing process and thus leave the core exposed. These early pieces were intended for everyday use and lacked any decoration (Rackham 1951:21). Around 1720, John Astbury discovered that the mixture of powdered calcined flint and clays from Devonshire and Dorsetshire resulted in a more malleable paste and produced a whiter and harder biscuit (Gusset 1980:12-13; Bedford 1964:7). Although the body was slightly beige in colour, white slips were now unnecessary (Gusset 1980:17). Eventually, an all-white homogeneous body was developed. Production of

dipped wares did not cease at this time; dipped tavern mugs and pitchers continued to be manufactured until about 1770 (Noël Hume 1970b:249; Gusset 1980:13).

Early vessels were wheel-thrown and decorations usually consisted of several horizontal bands, or impressed or applied motifs of rosettes, birds, portraits or grapevines (Gusset 1980:15, 19). Iron oxide was sometimes applied to highlight applique motifs whereas blue cobalt was used to fill in incised decorations, the latter technique was known as *scratch blue*. With the introduction of block moulds during the late 1730s, salt-glazed flatware pieces such as plates and small trays began to be manufactured (Noël Hume 1970a:115; Rackham 1951:23). Triangular, oblonge or heart-, star- or shell-shaped vessels were introduced, some pressed with elaborate reliefs like the *dot, diaper, and basket* pattern (Rackham 1951:23). The use of moulds had reached its height of popularity by 1750, after which time potters began painting their pieces with various colours of enamel (Gusset 1980:15). Between 1760 and 1780, English white salt-glaze was in its final phase of production. Vessels began to be decorated with transfer prints and perforations, but the quality of workmanship was steadily deteriorating (Gusset 1980:15; Rackham 1951:24). During the eighteenth century forms included cups, tankards, teapots, bowls, plates, saucers, soup tureens and figurines which commonly consisted of the "pew group": a man and woman ogling each other, or musicians seated on a bench playing fiddle or bassoon (Gusset 1980:22; Rackham 1951:25).

7.4.3.ii Area E Assemblage

Ten English white salt-glazed stoneware vessels were recovered from Area E: four straight-sided mugs, two cylindrical cups, one punch bowl, two saucers and one plate. Three vessels are early

dipped wares; seven post-date 1720. Four of these later wares have a beige fabric with black inclusions, whereas the remaining three have an all-white fabric and appear to belong to the final phase of production. The first straight-sided mug has a dark beige fabric coated with a white englobe. The second mug, also a dipped ware, has a dark beige fabric with many tiny black inclusions. This wheel-thrown cylindroid, about 12 cm in diameter, has two turned horizontal bands running along the mid-section of the body. Blisters are present in the body and the white englobe has pulled away beneath one of the horizontal bands. As this piece possesses imperfections from manufacturing it can be classified as seconds. The third mug also has a beige fabric and several tiny black inclusions. The last mug, 11 cm in diameter, has two bands on the upper body and an all white fabric indicating that it is a later ware (Figure 7.6). The first cylindrical cup recovered has a beige fabric with tiny black inclusions and appears to lack any decoration on the body. The second cup has a slightly flared rim, 8 cm in diameter and approximately 1 mm in thickness (Figure 7.6). An incised line runs parallel to the rim. The fabric is stained grey, but is believed to have been all white when the vessel was in use. A straight-sided punch bowl, rim diameter of 21 cm and body thickness of approximately 3 mm, was also discovered (Figure 7.6). Three wheel-turned bands run along the rim and body of the vessel and a tiny relief circle, diameter 1 mm, is present above one of the mid-section bands. A similar, but smaller, example was uncovered in an eighteenth-century pit group in Staffordshire (see example 17 in Kershaw 1987:74).

Three vessels affiliated with the structure in Area E were intended for food consumption: two saucers and one plate. Both saucers recovered were plain in decoration. The first, a dipped ware with a grey fabric full of tiny black inclusions, has a straight footring with a diameter of 6 cm

(Figure 7.6). The second saucer has a beige fabric with minute black inclusions and minor blisters. The footring has a diameter 5 cm and protrudes slightly outward (Figure 7.6). The English white salt-glazed plate uncovered has a flattened rim moulded in a grooved design (see Lynch 1969:29). A tiny protruding square, either a manufacturing defect or a mark from the mould, is seen on the underside. The fabric is all white indicating that it is a later ware.

7.4.3.iii Discussion

The growing fashion for tea drinking during the first quarter of the eighteenth century resulted in British potters attempting to produce wares suitable for tea service. Unable to master the secrets of porcelain manufacture, Staffordshire potters began to produce a fine white-bodied salt-glazed stoneware impervious to liquids and acids. A "rude kind of white stoneware" was first produced about 1685 by Thomas Miles of Shelton, Staffordshire (Rackham 1951:19).

Production of English white salt-glazed stoneware was centred out of Staffordshire, and may have been manufactured also in Liverpool (Lane ca.1958:57). The greatest output of wares was between 1740 and 1760, during which time it became the most common ware in England used for dining and tea service (Rackham 1951:22). Large quantities of English white salt-glazed stoneware were also exported to the European continent and the colonies (Wedgewood 1765 cited in Towner 1963:189; Gusset 1980:82, 132). Early pieces have been uncovered in mid-eighteenth-century contexts at Louisbourg in Nova Scotia (Lynch 1969), Fort St. Joseph in Ontario (Miller II and Stone 1970) and Wetherburn's Tavern in Virginia (Williams 2003:128). By 1780, increasing market competition from cheaper mass-produced creamware and porcelain wares in similar forms and decorations resulted in the rapid decline of the English white

stoneware industry. Production of English white salt-glazed wares ceased in 1787 (Gusset 1980:15).

7.5 Tin-glazed Earthenware

Vessels of both English and French origin are present in the coarse earthenware assemblage.

7.5.1 British Delftware

7.5.1.i Description

British delftware has a soft, chalky fabric that ranges in colour from buff to bright pink and has small red and white inclusions (Stoddart 2000:39). Vessels were coated with a lead glaze containing tin oxides which resulted in an opaque glaze that often crazed. Additional glaze colours were created by combining different oxides. Decorative motifs including flowers, foliage, birds, human figures or inscriptions, many in a pseudo-Chinese style in imitation of Chinese export porcelain, were at times painted over top of the glaze prior to firing (Noël Hume 1970a:106, Pope 1986:117). During the early seventeenth century, a distinctive mottled effect, known as *malling,* was produced by sponging manganese on vessels (Pope 1986:117). *Malling* became unpopular during the mid seventeenth century and potters began to mass-produce vessels bearing simple designs or ones completely devoid of decoration (Noël Hume 1970a:108). At the start of the eighteenth century, a demand for polychrome pieces resurfaced and *malling* was reintroduced (Riley 1987:63). At this time, the mottled effect was achieved by either dipping the entire vessel in a mixture of powdered pigment and glaze or by sifting powdered pigments, usually manganese or blue, over the white surface (Britton 1982:234). The latter method allowed for paper cut-outs to be used to create geometric reserves, void of the powdered decoration, in

which landscapes, chinoiseries, or foliate designs could be painted (Miller II and Stone 1970:40). This method of decoration was a common practise by Bristol potters (see Britton 1982:243, 251-252; Riley 1987:76; Austin 1994:160). Plain rimmed plates decorated with a central wreath encircling initials, dates, and/or inscriptions were also common during the eighteenth century (Noël Hume 1970a:109). Throughout the seventeenth and eighteenth centuries, tin-glazed earthenware came in a variety of forms: bowls, plates, dishes, saucers, porringers, mugs, jugs, bottles, colanders, jars, candlesticks, flower vases, chamber pots, washbasins, apothecary pots as well as figurines and tiles (Stoddart 2000:44-52, Noël Hume 1970a:109).

7.5.1.ii Area E Assemblage

The ceramic collection from Area E contains two British delftware vessels. The first is a yellow-bodied, white tin-glazed plate with a cobalt blue painted linear motif of hatched lines bordered by two solid lines. The second vessel is a punch bowl also with a yellow body and a white tin-glaze topcoat. The exterior exhibits a large hexagonal reserve outlined in cobalt blue enclosing a painted blue, floral Mimosa motif, a pattern that was a common style in Bristol and other English centres from about 1710 to 1740 (Miller 2000:11; Ray 1968:184). The reserve is surrounded by manganese mottling and small incised geometric decorations (Figure 7.7). A fine cobalt blue line runs parallel to the rim on the interior of the bowl. Punch bowls were one of the most common forms of delftware during the first half of the eighteenth century, especially deep vessels with almost vertical sides, such as the one recovered, as they were the most suitable for mixing punch (Austin 1994:26; Charleston 1984:9).

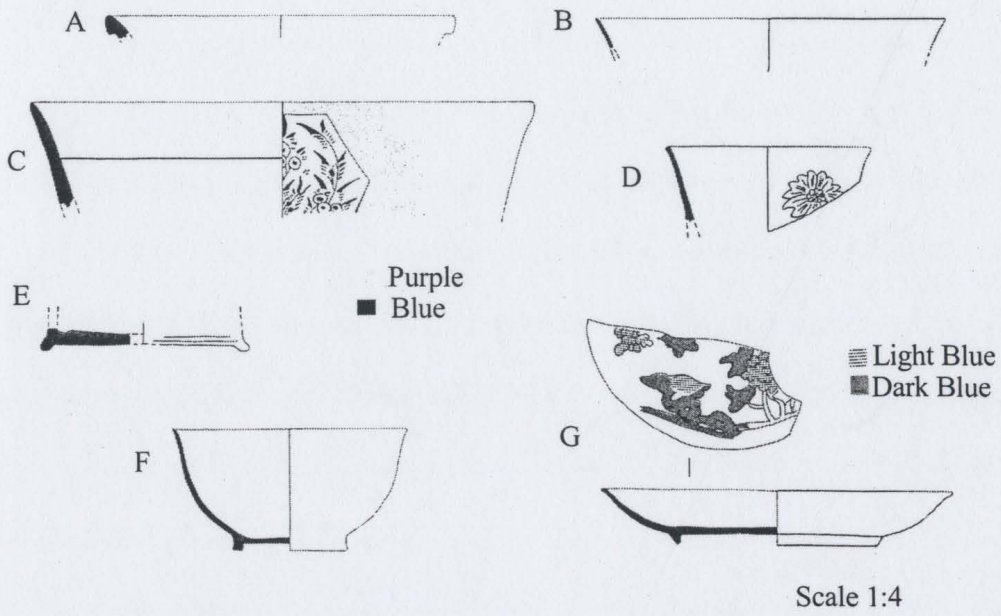


Figure 7.7. Profiles of Faïence, Delftware, Porcelain and Refined Earthenware Vessels from Area E, Ferryland.

Notes:			
	A	Brown faïence bowl	63683
	B	Porcelain saucer	401234
	C	English delftware punch bowl	401236
	D	Porcelain teacup	397379
	E	Redware mug	60250
	F	Agateware punch bowl	397380a-j
	G	Porcelain saucer	392344a, b

7.5.1.iii Discussion

Tin-glazed earthenware began to be produced in England possibly as early as 1567 when two Dutch brothers, Jasper Andries and Jacob Jansen, fled from Antwerp, Belgium, due to the threat of the Spanish Inquisition, and settled in Norwich, East Anglia (Stoddart 2000:27; Noël Hume 1977:1-3; Poole 1995:18). Three years later, Janson moved to London, changed his name to Johnson and continued to be a "pottmaker" alongside several other Flemish potters in Dukes Place, Aldgate (Poole 1995:18). Early on, delftware production was centred primarily in the boroughs of Lambeth and Southwark outside of London (Stoddart 2000:28). In the late seventeenth century, a potter began production in Bristol and in the mid eighteenth century large-scale production began in Liverpool, Glasgow and Dublin. Assigning provenance based on fabric is difficult with British tin-glazed earthenwares as clays were sometimes imported from elsewhere. For example, clay from Norwich was shipped to the Netherlands well into the eighteenth century (Stoddart 2000:38).

Tin-glazed earthenware was intended for food and cold beverage service as well as for pharmaceutical and hygienic uses. Its inability to withstand thermal shock and tendency to chip and break easily made it unsuitable for cooking purposes or teawares (Stoddart 2000:25). Delftware was expensive pottery and could cost up to three times the price of regular earthenware (Stoddart 2000:24-25). By the mid eighteenth century as less expensive English white salt-glazed wares infiltrated the market, the British delftware industry began to decline and potters began to focus predominantly on manufacturing tavern and utilitarian wares (Stoddart 2000:24-25; Austen 1994:22). By the final quarter of the century potters found it even more difficult to compete with cheaper, mass-produced creamware and transfer-printed wares from Staffordshire that production

almost ceased (Barker 2001:76; Crossley 1990:265; Noël Hume 1970a:115).

7.5.2 Brown Faïence

7.5.2.i Description

Brown faïence is a chaulky earthenware coated with a white enamel tin-glaze on the interior and a medium to dark manganese brown lead glaze on the exterior (Walthall 1991:91). In some instances molten tin or pewter was added to the white enamel giving it a greyish tint and tin oxide was added to the brown glaze giving it a pinkish brown tinge (Blanchette 1979:52). The fabric colour varies and can be red, reddish buff, pinkish buff or buff, although the latter is very rare (Blanchette 1979:51). The exterior of plates, bowls, hollow platters and cups is sometimes decorated with a mottled, marbled or speckled effect achieved by trailing or splashing tin enamel over the lead glaze (Hansen 1986:8; Blanchette 1979:53). The interior of serving wares including platters, bowls or deep dishes, often possesses a painted geometric or floral decorative pattern generally monochrome blue (Blanchette 1979:53; Waselkov and Walthall 2002:67). A stamped decoration, frequently the fleur-de-lys, was sometimes applied to the exterior of lids or pâtés, vertical walled containers circular, oval or oblong in shape (Blanchette 1979:50, 63, 76; refer also to Figure 19 in Long 1973). Few pieces are marked or dated (Walthall 1991:92). Flatwares were jiggered or moulded, whereas holloware vessels were wheel-thrown and some pieces finished by jiggering (Blanchette 1979:50; Popovitch and Vaudour 1978:12). Vessel forms include cups, porringers, pipkins, cooking pots, storage jars, pitchers, plates, platters, saucers, soup tureens, bowls and pots for coffee, chocolate or tea (Walthall 1991:91; Blanchette 1979:57; Noël Hume 1970a:142).

7.5.2.ii Area E Assemblage

Two brown faïence holloware vessels were uncovered in Area E. The first vessel is a bowl with an orangey pink body and red hematite inclusions. The interior is coated with white tin enamel and the exterior exhibits a mottled decoration. The rim is inverted and has a diameter of 18 cm. The enamel on the rim has worn away indicating that this vessel was heavily used (Figure 7.7). The second vessel is represented by a plain buff body sherd that may belong to a bowl, pitcher or teapot.

7.5.2.iii Discussion

To pay for the excessive expenses accumulated in foreign wars during the late seventeenth and early eighteenth centuries, Louis XIV ordered under the Sumptuary Edict of 1709 that all silver and gold table services, including those of the nobility, be sent to the mint (Blanchette 1979:27). In need of a fine tableware, the nobility quickly adopted faïence. Manufacturers who were granted royal privileges to produce the ware, could not fulfill the demand and in 1698, when the royal licences expired, other manufacturing centres began to produce the many varieties of faïence: brown, white, painted, or agate (Blanchette 1979:27-28). Shortly thereafter, the shortage of wood fuel caused the French government to restrict the number of kilns constructed and to begin issuing permits stipulating production for either white or brown faïence. In 1707, a Paul Caussy requested permission to build a kiln at Rouen and manufacture brown faïence (Blanchette 1979:26).

The development of maritime commercial trade following 1720 resulted in an increased demand for plain faïence wares. Brown faïence has been uncovered on numerous French colonial sites,

such as Louisbourg, in contexts post-dating 1720, and English colonial sites, including Fort Michilimackinac, post-dating 1760 (Blanchette 1979:78; Miller II and Stone 1970:39-40). This temporal difference clearly demonstrates two distinct cultural traditions. Production of brown faïence discontinued following the Treaty of Vergennes in 1786, which permitted English ceramics such as Staffordshire stoneware and creamware to enter the French market. As "...imported English pottery was often preferred because it was prettier and cheaper, and furthermore, it had an appeal, being a foreign-made product" the popularity of French faïence quickly declined (1798-1800 document quoted by Pottier 1870:347, cited in Blanchette 1979:30).

Due to its physical properties, brown faïence was ideally suited for domestic use. Its combination of half clayish loam, half clay or fine sand and manganese lead glaze provided a heat resistant ware excellent for preparing and serving hot foods and beverages (Blanchette 1979:49, 73). Tin-glaze was also considered to be more hygienic than other types of earthenware (Stoddart 2000:33). Plain brown faïence was made primarily for everyday kitchen and table use whereas decorated vessels were most likely intended for special occasions. Produced in a variety of forms, all adapted to the alimentary trends of eighteenth-century French cuisine, brown faïence was frequently used by the bourgeoisie, clergy and nobility (Blanchette 1979:176). It is not present on sites occupied by individuals of low social standing such as fishermen (Blanchette 1979:95).

7.6 Porcelain

7.6.1 Chinese Export Porcelain

7.6.1.i Description

Porcelain is a finely made, translucent highly vitrified ware that comes in two forms: soft paste or hard paste. Essentially all Chinese export porcelain is hard paste porcelain made from kaolin and petuntae. Once glazed, vessels can vary in colour from nearly pure white to gray-white, blue-white, or green-white (Miller II and Stone 1970:81). The fabric is extremely hard and when broken exhibits a conchoidal fracture. Foot rings are slightly rough, generally unglazed, and often have a distinct orange colour. Defective pieces may have a bubbly glaze due to incorrect firing. Under-glazed decorative patterns, which include floral, foliate and cervine motifs or chinoiserie scenes, were hand painted in cobalt blue (Pope 1986:123). Some blue and white porcelain, known as *Batavia* ware, has an exterior brown slip (Noël Hume 2001:245). Gold gilding or a soft green glaze were also applied as decoration (Curtis 1987:130). Around 1683, Chinese potters improved the quality of overglazed polychrome painted wares, but as overglazed decorations required special artists and additional firings, polychrome pieces were more expensive and blue and white porcelain continued to predominate (Watney 1979:xvii-xviii; Miller II and Stone 1970:86). Chinese export porcelain is generally unmarked, but rare pieces exhibit Chinese characters or animal depictions (refer to Mudge 1986:229-236). Vessels were frequently wheel-thrown, but sometimes moulded to create a ribbed, scalloped or flowers and tendrils motif (Curtis 1987:129, 1988:29). Vessel forms include platters, plates, dishes, saucers, cups, teapots, coffee cans, jars, tureens, vases, bottle, ewers, jugs, and basins (Mudge 1986).

7.6.1.ii Area E Assemblage

Four Chinese export porcelain wares were recovered from Area E, all affiliated with tea drinking: one cup, two saucers and one bowl. The cup has a slightly flared rim with a diameter of 7 cm (Figure 7.7). An under-glazed, cobalt, hand-painted floral decoration is present on the exterior and the glaze has a bluish tinge. Prior to 1750, Europeans drank tea, coffee, and chocolate from thin, handless cups such as the one uncovered (Mudge 1986:104). Examples of these traditional Chinese bowls, originally intended for wine, have been uncovered in mid eighteenth-century contexts at the Forts of Pemaquid (Bradley and Camp 1994). Following 1750, Chinese potters produced cups with handles specifically for the European market. These tended to have straight rims as shown from specimens found on the *Machault* shipwreck (Jolliffe 1973).

The first saucer found exhibits an under-glazed, cobalt, hand-painted chinoiserie floral pattern coated with a blueish-tinged glaze (Figure 7.7). The rim is straight with a diameter of 12 cm, and the footring slants inwards with a diameter of 7 cm. The vessel height is 19 cm. The second saucer has a straight rim with a diameter of about 14 cm. An iron red and green overglazed pattern runs parallel to the rim; the border may be of cloud collars (Figure 7.7; refer to Curtis 1987:Illustration 9). Polychrome decorations became quite popular during the 1720s and the use of iron red appears to have been favoured ca.1740 (Watney 1979:xviii; Mudge 1986). The remaining Chinese export porcelain vessel is a bowl with a rim diameter of 12 cm and an under-glazed, cobalt, hand painted floral decoration on the exterior. The glaze also has a bluish tinge.

7.6.1.iii Discussion

In the sixteenth century, the Portuguese introduced large quantities of Chinese export porcelain to

Portugal and Spain (van der Pijl-Ketel 1982:28). Early pieces, being rare, were highly prized and often mounted in gold or silver. By the end of the century, blue and white porcelain was noted in numerous inventories of Europe's wealthy (van der Pijl-Ketel 1982:28-29). During the early eighteenth century, ownership of Chinese porcelain was rare in the colonies as very few pieces were being sent across the ocean. Inventoried deeds from Louisbourg reveal that the wealthier inhabitants owned blue and white porcelain, and that only the richest possessed gilded porcelain (Blanchette 1979:168-169). Regular commercial shipments began to arrive to the British colonies in the early 1720s, mostly via the East India Company. By mid-century Chinese export porcelain was available to all income groups, ownership of which was most common in commercial ports (Mudge 1986:117). The merchants possessed the most and the best of all qualities, but even the poorest households were in possession of at least some porcelain (Shulsky 2002; Curtis 1987:123; Mudge 1986:120, 125).

Chinese export porcelain arrived to the New World via Europe as no direct trade between the colonies and the Orient had been established during the early modern period (Miller II and Stone 1970:81). For the Newfoundland market, pieces were re-exported from either England or the American colonies (Mudge 1986).

Although porcelain began to be produced at Meissen and other centres in Europe during the first decade of the eighteenth century, Chinese export porcelain continued to be coveted as it was generally of good quality and reasonably priced (Miller II and Stone 1970:81; Rackham 1951:21). By the late eighteenth century, however, sales of Chinese export porcelain declined rapidly. Not only was the market flooded with cheaper mass-produced Staffordshire

earthenwares and decorative English porcelain of reasonable quality, but during the 1790s, to protect the home ceramics industry, the British government levied an import duty of almost 50 percent on Chinese porcelain (Pearce 2000:155; Mudge 1986:126-127). As demand for Chinese porcelain dwindled, the British East India Company carriage of porcelain effectively ceased after 1792 (Pearce 2000:155).

Apart from rare pieces of Imperial porcelain, Chinese export porcelain was intended to be used as tableware. Compared to delftware, porcelain was also the preferred choice for teawares as it was more durable, heat resistant and "ultrafashionable" (Austin 1994:27). Formal porcelain tea sets exhibiting uniform decorations began to be produced in the early eighteenth century, and formal dinner services were introduced in the 1720s and 1730s (Mudge 1986:147-148). The range of decorative patterns within the Area E Chinese export porcelain collection suggests that the owners had collected individual pieces to be used together rather than a formal tea service. Two possible explanations for this distinct consumption pattern are that either the owner could not afford a formal tea set, or that such sets were not available to the Newfoundland market at that time.

7.7 Refined Earthenware

7.7.1 Redware

7.7.1.i Description

Redware is a hard, smooth, fine bodied earthenware with an overall thin, clear lead glaze. Vessels were hand-thrown or wheel-thrown, and fired twice: once before and once after glazing (Poole 1995:54). Pieces often lack any formal decoration and forms include teapots, bowls and

mugs (Kershaw 1987:68; Pearson 1979:207).

7.7.1.ii Area E Assemblage

Two redware fragments were recovered from Area E. The first is the base to a straight sided mug, base diameter 7 cm (Figure 7.7). It is similar to one recovered from the Pomona Inn, in North Petherton, Somerset (example 64 in Pearson 1979:205). The second fragment is a bulbous, thin body sherd and appears to be a bowl (refer to example 63 in Pearson 1979:205).

7.7.1.iii Discussion

Glazed red tea and coffee wares were popular from the 1720s to the 1770s and are commonly recovered from production centres in Stoke-on-Trent (Kershaw 1987:64). Other examples of this ware were also made at Brislington, Bristol (Pearson 1979:207).

7.7.2. Agateware

7.7.2.i Description

Agateware is a very hard, smooth marble bodied earthenware comprised of mixed white, yellow, red and/or reddish brown clays (Pearson 1979:207). Pigments including cobalt, manganese or iron were sometimes added to the clay to produce the variegated effect (Erickson and Hunter 2003:89; Rackham 1951:28). In some instances, the clay was whithened by sieving out the impurities such as iron and sand (Erickson and Hunter 2003:89). Vessels frequently have a clear lead glaze and were either wheel-thrown or laid (Erickson and Hunter 2003:87; Honey 1933:18). Laid agateware refers to pieces that were created from a bat or thin sheet of agate clay which was laid in a mould and pressed into shape. Teawares, especially teapots, were the most common

forms made, although mugs, bowls, dishes and footed censers were also manufactured (Erickson and Hunter 2003:91).

7.7.2.ii Area E Assemblage

A single agateware punch bowl of white, red and reddish brown striated fabric is in the ceramic assemblage (Figure 7.7). This hemispherical bowl stands 6.2 cm in height and has a straight rim, diameter 12 cm. The footring is also straight, 0.5 cm in height and 5.8 cm in diameter. The capacity of the bowl is approximately 483ml (less than one pint) indicating that this vessel was intended for individual consumption rather than as a serving vessel.

7.7.2.iii Discussion

Although a stoneware version of agateware was being produced by John Dwight in the 1670s, it was not until 1729, when Samuel Bell of Staffordshire was granted a patent to produce a "red marbled [ware] with mineral earth...capable of receiving a gloss so beautiful as to imitate if not compare with ruby", that true agateware was manufactured (Erickson and Hunter 2003:87-90). Once the difficult feat of producing a ceramic ware from dissimilar clays was overcome -one had to consider shrinkage rates, firing temperatures, density, plasticity, elasticity and strength- other Staffordshire potters began to produce the ware (Erickson and Hunter 2003:89,91; Honey 1933:18). Wheel-thrown agateware reached its height of popularity in the 1750s (Erickson and Hunter 2003:91). A coarser type of thrown agateware began to be produced in the early 1770s. The earliest documented example of a laid agateware vessel manufactured in Staffordshire is a dish inscribed with the date of 1746 (Erickson and Hunter 2003:93). Twelve year later, laid pieces were also being produced in Apt, France by Francius Moulina and Jacques Barthelemy

(Erickson and Hunter 2003:94).

In 1759, Josiah Wedgewood wrote "I had already made an imitation of Agate, which was esteemed very beautiful, and a considerable improvement, but the people were surfeited with wares of these variegated colours" (Wedgewood 1759 cited in Towner 1963:181). Agateware was a costly and labour intensive ceramic to produce and was only moderately more expensive than undecorated creamware. As consumer demand for the ware diminished, production of thrown agateware ceased in Staffordshire by the late eighteenth century; the partnership of Astbury-Whieldon discontinued making the ware in 1775 (Erickson and Hunter 2003:91,107; Noël Hume 1970a:132). Production of a possibly coarser type of thrown agateware continued at other pottery centres including Sussex into the nineteenth century (Erickson and Hunter 2003:91). Laid agateware also continued to be manufactured into the nineteenth century in several European and American centres (Erickson and Hunter 2003:94,95).

7.7.3 Creamware

7.7.3.i Description

Creamware has a cream coloured, somewhat porous body that may contain crushed silicon, feldspar, or kaolin inclusions. Earlier pieces are generally more grainy, porous and deeper yellow in colour (Hansen 1986:13). During the 1740s and 1750s, metal oxides such as copper, iron and manganese were frequently applied to give vessels a clouded appearance (Towner 1978:20). Other decorative techniques include gilding, blue painting commonly displaying Chinoiserie motifs, enamel painting, on-glaze printing first used in the 1750s, and under-glaze printing introduced in the 1780s (Noël Hume 2001:204-205, 216; Coysh and Henrywood 1982:8). During

the last quarter of the eighteenth century, annular or banded decorations were also applied. Some early creamwares possess small stamped motifs or moulded rim patterns similar to those found on English white salt-glazed wares (Towner 1978:20). Common relief moulded marleys include the *Queen's ware*, *Royal ware*, *feather edge* and *shell edge*. Another popular border pattern for plates, dishes and fruit baskets was lace-like piercings manufactured by the Leed Pottery (Noël Hume 2001:212). Creamware tablewares were also moulded into fruit and vegetable shapes such as cabbages, cauliflowers and melons (Towner 1963:183, 185-186). Creamware comes in a variety of vessel forms that include plates, dishes, saucers, bowls, mugs, teacups, teapots, coffee pots, pitchers, jugs, tureens, candlesticks and figurines (Towner 1978).

7.7.3.ii Area E Assemblage

One tiny fragment of creamware exists amongst the ceramic assemblage. This plate rim sherd, deep yellow in colour, exhibits relief moulded fronds all curving in the same direction, a pattern known as *feather edge* produced by Josiah Wedgewood between 1765 and 1772 (Noël Hume 1970a:125-126).

7.7.3.iii Discussion

Around 1720, John Astbury began to add crushed calcined flint to clays from Devonshire and Dorsetshire to create a more malleable paste as well as a whiter and harder biscuit (Gusset 1980:12-13; Bedford 1964:7). When these materials were fired at high temperatures, white stoneware was produced, and when they were fired at lower temperatures a cream-coloured earthenware was formed (Towner 1978:20). On early pieces, a glaze of lead powder or galena mixed with ground flint was dusted on prior to firing. This method was, however, so poisonous

to the potters that in the 1740s, Enoch Booth began to dip cream-coloured earthenware in a fluid lead glaze between double firings (Towner 1978:19-20). The latter often pooled in crevices such as footrings leaving a green tinge. In 1762, Josiah Wedgewood perfected both the body and glaze of creamware.

Creamware was produced in Staffordshire, Liverpool, Hull, Bristol, Shropshire, London, Bovey Tracey, Sunderland, Newcastle-upon-Tyne, Derbyshire, Yorkshire and Swansea (Barker 2001:77; Towner 1978:21,). The two major production centres, however, were Josiah Wedgewood's in Staffordshire and the Leed Pottery in Yorkshire (Miller II and Stone 1970:42). By the end of the eighteenth century, creamware was also manufactured on the European continent. Factories existed in Germany, Hungary, Belgium, Sweden, Denmark, Italy and Spain (Lowe ca.1958:34). It is often difficult to pinpoint the production site for creamwares. Following 1761, only some better quality pieces exhibited makers' marks, but the majority of the low-priced utilitarian wares remained unmarked (Lowe ca.1958:11-12). Additionally, attribution of pieces can not rely solely on decoration either. Not only did potters move from factory to factory, copy shapes and designs and use identical moulds, but factories often sent their pieces to outside firms to be decorated, therefore, one firm could have decorated wares from a number of different potters (Lowe ca.1958:12; Towner 1978:21).

Creamware was a cheap utilitarian ware intended for a vast range of domestic uses. Initially, it was produced on a small scale, but in the second half of the eighteenth century, as larger factories opened, creamware began to be mass produced; production greatly increased in the 1760s and 1770s (Miller 1993:17; Lowe ca.1958:15). Creamware quickly became a popular tableware

found in most households throughout England and the British colonies, and was the principle manufacture of English potteries until about 1820 (Lowe ca.1958:9).

7.7.4 Whiteware

7.7.4.i Description

Derived from pearlware, whiteware has a white, slightly porous earthenware body. Early pieces have a slightly yellow tinged lead glaze, whereas later wares are coated with a clear lead glaze. If decorated, pieces are generally edged, dipped, painted or under-glaze printed. Early transfer-prints were of cobalt blue as this was the only colour that remained stable during firing (Coysh and Henrywood 1982:8). Additional colours were introduced in the nineteenth century including black, brown, green, sepia and mulberry (Samford 1997:21-22; Coysh and Henrywood 1982:10).

7.7.4.ii Area E Assemblage

A single whiteware plate fragment was excavated. With a rim diameter of about 20 cm, this rim sherd has a brown, under-glazed, transfer-printed floral motif on the interior marley. Repeating floral marley patterns date between 1784 to 1856 and brown prints were common in the 1830s suggesting a date range of ca.1830 to 1856 for this plate sherd (Samford 1997:18). The manufacturing time lapse between this waretype and creamware indicates that this ceramic is an intrusion.

7.7.4.iii Discussion

In 1774, Richard Champion was granted a patent to produce hard-paste porcelain in Bristol (Miller and Hunter 2001:136). The following year, Champion renewed the patent with the clause

that no other potter was permitted to manufacture the said ware (Miller and Hunter 2001:137). As the production of English porcelain was restricted, Staffordshire potters began to improve on old wares and experiment with new ones. In 1779, Josiah Wedgewood manufactured his own version of a whitened creamware and called it *Pearl White* (Miller and Hunter 2001:369). Continuing to strive to develop a whiter-looking ware, Staffordshire potters introduced whiteware in 1805. Whiteware did not become common on colonial sites until after 1820 (Miller 2000:13).

7.8 Discussion

7.8.1 Dating

The ceramic assemblage from Area E contains a multitude of vessel waretypes manufactured in the seventeenth and eighteenth centuries. The broad date range can be narrowed by the fact that the settlement was completely razed by the French in 1696 and resettled the following year. This event provides the collection with its *terminus post quem* of ca.1697. The presence of a *feather edge* creamware sherd, the latest ceramic type in this assemblage, suggests a *terminus ante quem* of roughly 1765.

South (1978) stipulated that a relationship exists between the manufacture period of ceramic waretypes uncovered on eighteenth-century British American sites and the period of occupation for those sites. Using South's mean date formula with a few revisions, the ceramic assemblage from Area E yielded a mean date of 1722 (Appendix 3). This mean date fits in relatively well with the date range of ca.1697 to 1765.

7.8.2 Trade

The Staple Act of 1663 specified that all goods bound for the colonies were subject to English duties and were to be shipped through English ports. A decree followed in 1672, and remained in effect until 1775, that further banned the importation of "any kind or sort of Painted Earthen Wares whatsoever (except those of China, and Stone bottles and Juggs)" (cited in Noël Hume 1970a:140-141). As the Newfoundland market in the eighteenth century was predominantly supplied by British and American ships, little European pottery, apart from stonewares, reached the island.

Over half of the ceramic collection from Area E is of English manufacture trucked in on British migratory ships and American trading vessels (Table 7.4). Historic documentation reveals that at the start of the eighteenth century the Southern Shore was occupied almost exclusively by vessels from the North Devon ports of Bideford and Barnstaple (Head 1976:153; Handcock 1989:66). Additional ports included Plymouth, Topsham and London (Table 7.5). The high number of North Devon earthenwares amongst the early eighteenth-century ceramics in the Area E collection also alludes to trade links with North Devon at the start of the century. The presence of South Somerset-type and Nether Stowey ceramics point to connections with Plymouth and Bristol respectively (Temple 2004). Shortly thereafter, North Devon's failure to modernize and refine their wares to suit shifting tastes resulted in the decline of their industry (Grant 1983:131-134; Watkins 1960:59). Staffordshire potters, feeding the market demand for finer wares, captured North Devons earthenware export market around 1720 (Weatherill 1983:18; Watkins 1960:59).

Table 7.4. Vessel Frequency by Origin for Area E Ceramic Assemblage.

Origin	MNV	Percentage
England	30	57
Portugal	4	7
Germany	11	21
France	2	4
China	4	7
Unidentified	2	4
Total	53	100

Notes:

1701 includes the following sack ships: 1 from Plymouth, 1 from London, 2 from Boston, and 1 from Carolina.

1708 Caplin Bay and other southern harbours are not listed separately and may be included here.

1763 includes the following sack ships: 1 from Waterford, 1 from Boston, and 1 from Philadelphia.

New England includes 2 ships from Boston in 1701, 1 from Salem in 1708 and 1 from Boston in 1763.

Sources:

1700a Fairbourne 1700
1700b Innis 1954:140
1701 Graydon 1701b
1703 K.M.F. 4.68.23
1708 Mitchell 1708
1715 Anonymous 1715
1763 K.M.F. 4.68.63
Innis 1954:146

Table 7.5. Home Port of Ships in Ferryland for Select Years.

	1700a	1700b	1701	1703	1708	1715	1763	Total
Bristol					1			1
Bideford	4	4	3	1	5			17
Barnstaple	3	4		3	2			12
Ilfracombe					1			1
Plymouth	2	2	2	2				8
Dartmouth			1	1			4	6
Topsham	1	1			4			6
Poole							1	1
Southampton						1		1
London	1	1	1		2			5
Waterford	1		2				1	4
New England			3		1		1	5
Philadelphia							1	1
Carolina			1					1
Barbados			1					1
Ferryland							3	3
Total	12	12	14	7	16	1	11	73

Pottery production greatly expanded in Staffordshire during the eighteenth century. By 1762, approximately 150 factories existed in north Staffordshire employing around seven thousand individuals (Goodby 2003:1). Additionally, during the 1760s, Staffordshire manufacturers also began to invest in improvements in transport to facilitate trade (Barker 2001:81). In 1777 the Trent and Mersey Canal was opened providing the Staffordshire potteries direct access to the sea. Prior to this, wares were exported primarily through Liverpool, the nearest seaport to the Potteries, Bristol and London (Gusset 1980:131; Allan 1984:128-129). The high number of Bristol-Staffordshire wares in the Area E assemblage illustrates the shift in consumer tastes for finer wares, the availability of these wares to the inhabitants of Ferryland and possible direct trade links with the ports of Bristol and/or Liverpool.

Ceramic wares of German, French, Portuguese and Chinese origin were also uncovered. Their presence does not indicate direct trade with these regions, but rather that the migratory maritime population visiting Ferryland may have had trading access to ports in these countries. For example, Merida-type wares most likely arrived on ships stopping in Portugal for Madeira wine (Anonymous 1789a and 1789b). Vessels may have also been obtained directly from shipping crews. Archaeological investigations of ship wrecks have revealed that stonewares were commonly taken along on voyages as personal possessions, and often used for drinking tea and coffee aboard ships as opposed to more fragile earthenwares (Gaimster 1997a:110, 1997b:126). In rare instances, vessels may have also arrived in the form of containers. For example, stoneware was used as secure packaging for volatile items such as mercury (Gaimster 1997a:110, 1997b:126).

7.8.3 Function

The ceramic vessels recovered from Area E were grouped into functional categories modified from Beaudry et al. (1988) and Yentsch (1991) (Table 7.6). Almost half of the ceramic assemblage is made up of Beverage Consumption vessels such as mugs, cups, punch bowls and jugs. A further breakdown of this category indicates that six of the vessels were for serving and included two Westerwald jugs, two Merida-type jugs, one Delftware punch bowl and one English Saltglazed stoneware punch bowl. The remaining vessels were for individual consumption such as Westerwald mugs, an Agateware punch bowl of less than a pint capacity, and porcelain teacups. The Food Consumption category follows in rank with 27 percent and consists of plates, dishes and saucers. Food and Drink Storage and Food Preparation vessels are relatively poorly represented at 11 percent and 9 percent respectively. The latter may be the result of the residents using vessels made of other materials, although there is no evidence for this. No Health and Hygiene ceramic vessels were uncovered at the site.

7.8.4 Social Context

Improvements in technology and transportation in Britain during the early eighteenth century resulted in a saturation of superior quality inexpensive consumer goods in both the home and colonial markets (Weatherill 1983). At the same time, innovative and aggressive marketing techniques incorporating a new ideology stressing the ownership of "imaginary necessities" were also introduced (Axtell 1999:215; Carr and Walsh 1988:142). Luxuries were transformed into necessities and the ability to purchase such items lead to the birth of a consumer society (McKendrick 1982a).

Table 7.6. Vessel Frequency by Functional Division for Area E Ceramic Assemblage.

Functional Category	MNV	Percentage
Food Preparation	5	9
Food and Drink Storage	6	11
Beverage Consumption	26	49
Food Consumption	11	21
Health and Hygiene	0	0
Other	1	2
Unidentified	4	8
Total	53	100

During the early seventeenth century, colonists purchased goods primarily for utilitarian purposes; luxury items, due to their rarity and expense, were restricted to the elite. The influx of affordable amenities in the latter part of the century and into the next, however, led to a consumer revolution that tapped into all levels of society (McKendrick 1982b; Weatherill 1996:25-42). The elite classes continued to acquire opulent commodities such as japanned chests of drawers, teaware, clocks and watches, to define their elevated social status through the possession of these goods and knowledge of their prescribed uses (Walsh 1983:110). By the eighteenth century, the middling classes also began to willingly participate in the new form of consumption, demanding the same general range of imports that wealthier individuals were offered (Breen 1988:82; Axtell 1992:127). Probate inventories of the lower classes from this period illustrate that even these individuals were willing and able to purchase certain amenities such as bed or table linens, knives, forks, clocks and watches; however, the middling ranks continued to be the most important market (Carr and Walsh 1988:144-149; Weatherill 1996:193).

The growing variety of consumer goods resulted in a renegotiation of status and led to the adoption of new standards for social intercourse (Pogue 2001:52; Yentsch 1994:139). To re-establish social distance from other classes, the elite began to adopt new strict rules of etiquette and behaviour that rejected the communal values of earlier times. Coupled with the ideology of individualism, this new Georgian worldview was well exemplified within the ritual of dining (Deetz 1996:66-67). During the seventeenth century, individuals consumed meals communally. All courses were served together at once, the sharing of dishes was not uncommon and food was often taken directly from a large vessel rather than being served onto individual plates (Earle 1937:104; Weatherill 1996:153). During the eighteenth century, the act of dining was refined

and new accoutrements and furnishings such as teaware and tableware were required. The meal, itself, was divided into various courses and served in new specialized dishes; cutlery and napkins were used to eat in a new civilized manner (Martin 1993:153). The presence of mugs, teacups, a punch bowl of less than a pint in capacity and plates, rather than dishes which were intended for communal eating, illustrate that the new ideology centred around the individual was gradually adopted in Newfoundland during the eighteenth century. The possession of porcelain teacups and saucers used for the drinking of tea, a popular hot beverage in gentry households in the early eighteenth century, suggests that the owners were also aware of the new standardized behaviour and etiquette as well as able to afford the new fashionable products of the day. Additionally, the delftware vessels, which due to their fragility fulfilled a largely decorative rather than functional role, indicate that the owners also practised conspicuous consumption

7.9 Conclusion

The ceramic assemblage of 53 vessels from Area E consists of an assortment of ceramic waretypes that have a date range of ca.1697 to 1765, and a mean date of ca.1722. A description of each waretype is provided in this chapter and the implications of its presence are discussed. Almost half of the ceramic assemblage is comprised of Beverage Consumption vessels, followed by items used for Food Consumption, Food and Drink Storage and Food Preparation, respectively. No Health and Hygiene ceramic vessels were uncovered. Ceramics manufactured from England, the European continent and the Orient were unearthed at the site. The British waretypes reflect trade links primarily with North Devon, but also Plymouth, during the early eighteenth century, and then illustrate a shift to the ports of Bristol and/or Liverpool following the increase in distribution and popularity of Bristol-Staffordshire wares around 1720. The

presence of mugs, teacups, plates and a punch bowl less than a pint in capacity indicate that the residents adopted the new structured worldview in which a strong emphasis was placed on the individual. By purchasing the latest fashionable products and possessing knowledge of the proper etiquette for their use, the residents practised conspicuous consumption and established their position in the social order.

Chapter Eight
The Glass Assemblage

8.1 Introduction

Many theories exist concerning the origins of glass production. Whether glass was accidentally discovered by the ancient Egyptians while making pottery, or by Phoenician merchants while cooking or yet by others, glass vessels have been uncovered in the Near and Middle East dating to approximately 1500 BC (Pearsall 1999:9). The following chapter discusses the glass collection recovered from Area E. The quantification and classification methods used for the study are outlined and the assemblage is presented according to type group: wine bottles, wine glass, decanters, medicine vials, window glass and unidentified. A date range is determined for the assemblage and inferences are made about consumption and trade patterns.

8.2 Quantification and Classification

Archaeological investigations in Area E yielded at least 1,010 fragments of glass. As with the ceramics, the total count is slightly higher as the approximate total does not take into account groups of sherds given one catalogue number. The glass vessels deriving from stratigraphic layers pertaining to the eighteenth-century structure and their crossmends, including those from disturbed strata, are discussed in this chapter. Window glass is discussed in Chapter 11, and interesting finds uncovered in disturbed contexts, but dating to the eighteenth century and thus possibly be affiliated with the structure, are presented in Chapter 12.

The glass assemblage was initially grouped according to type (i.e. wine bottle, pharmaceutical vials, etc.) based on form, colour and method of manufacture. Next, mends and crossmends were sought; fragments that appeared to derive from the same object by virtue of form and colour, even

if they did not mend, were grouped together. Following this, each type group was analyzed individually, measurements were taken and several pieces were drawn. For the wine bottles, measurements were taken of the bases, necks and rims, and vessel forms were assigned based on typologies given by Wicks (1999a), Banks (1997), Jones (1986) and Dumbrell (1983).

A minimum vessel count (MNV) was calculated to determine the minimum number of vessels used by the occupants of the eighteenth-century structure. Using vessel form, manufacturing techniques and colour as determining factors, all sherds that appeared to have derived from the same vessel, including those that did not mend, were grouped together. As with the ceramics, if crossmends existed between strata, a conservative MNV was calculated where all the related layers were treated as one single layer. Table 8.1 outlines the MNV for each glass type found in the Area E glass assemblage.

8.3 Wine Bottles

During the early 1600s, the English Crown, concerned with the depletion of forests due to the consumption of timber by the glass and iron industries, began to promote a number of experiments to search for a new fuel source (Wicks 1999a:22). In 1614, Sir Edward Zouche was successful in using coal as a substitute, and the following year, King James I prohibited the use of timber for glass-making. The change to coal as a fuel source allowed for higher temperatures in the glass furnace, which resulted in heavier and stronger glass (Wicks 1999a:23). Additionally, coal gave wine bottles their darker colouring useful in hiding any impurities in the glass as well as protecting the contents from the harmful effects of light (Sullivan 1986:59)

Table 8.1. Minimum Number of Vessels by Type for Area E Glass Assemblage.

Type	No. of Sherds	Min. No. of Vessels
Wine Bottles	226	14
Wine Glasses	2	2
Decanters	3	2
Medicinal Phials	4	3
Unidentified	1	1

Notes: Wine bottles include precylindrical and cylindrical forms.

Gradually replacing the traditional leather, earthenware, stoneware and staved containers, dark green wine bottles were used not only for shipping and storing wine, spirits and possibly mineral water, but also for decanting and maturing liquids. Due to function and technological advancement, different wine bottle forms developed through the years. Early seventeenth-century wine bottles, known as *shaft and globe*, had a bulbous body, a very long neck, and a string rim to provide a ledge to secure a cork stopper (Pearsall 1999:30). Towards the eighteenth century, the neck and lip decreased in height, bodies became squatter and more oval or onion in shape, and bases and resting points became wider (Wicks 1999b). In the mid 1720s, bottle height increased and the sides of the body flattened and tapered outwards from the shoulders to the base giving the bottle a mallet-shape (Jones 1986:9). Around 1735, dip moulds began to be used to form the body and sometimes the base of a bottle; the shoulders, neck and finish were still hand-made (Jones 1986:73). The use of moulds resulted in more cylindrical and taller narrower bodies, which were more uniform in capacity and could be stacked more efficiently during the maturation of wine.

A total of 14 wine bottles are in the glass assemblage from Area E. Four are precylindrical bottles, nine are cylindrical bottles and one form is unidentified. Measurements for the respective bottles are provided in Appendix 4. The wine bottles tended to be olive green in colour, with some exceptions which are noted.

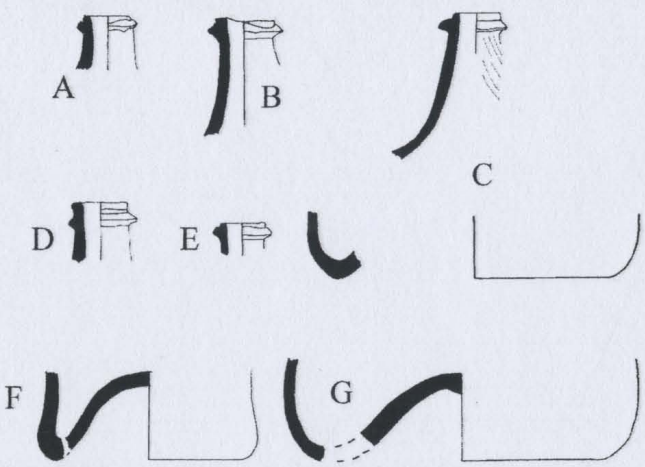
8.3.1 Precylindrical Bottles

Of the four precylindrical bottles, two were identified as Type F: Squat Onion, one as a potential Type F, and one simply as free-blown. The first Type F bottle is represented by a finish and a

base fragment. The string rim was not tooled and the lip was cracked-off and fire-polished smoothing the edges and giving it a rounded form (A in Figure 8.1). The second Type F bottle is represented by a neck, shoulders and a partial body and was heated as if thrown into a fireplace (Figure 8.2). The potential Type F vessel consists of a complete finish with a cracked-off lip and V-shaped string rim (B in Figure 8.1). The last vessel identified as a precylindrical bottle is represented by a rounded body sherd.

8.3.2 Cylindrical Bottles

Nine of the fourteen wine bottles uncovered were cylindrical in form; three of which were identified as Mallets and one as a Squat Cylinder. The first mallet-shaped bottle is represented by a complete finish, shoulders and a partial base. The lip was cracked-off, the string rim down tooled and the neck slightly tapered (C in Figure 8.1). The shoulders are rounded indicating that this is an early mallet dating between ca.1720 and 1740 (Banks 1997:25). The second Mallet is blueish green in colour and consists of a neck and partial base (G in Figure 8.1). The large clear pontil mark suggests that the vessel was manufactured between ca.1725 and 1730 (Dumbrell 1983:41). The third Mallet bottle is represented by neck and base fragments (F in Figure 8.1). The body is quite straight suggesting that this bottle is a later version of the mallet and dates between 1740 and 1760 (Banks 1997:25). The resting point is quite worn suggesting that it was extensively used prior to breakage. An almost complete Squat Cylindrical bottle was also recovered (Figure 8.2). It has a dome-shaped pushup, a slightly bulged heel and tapered neck, a V-shaped string rim and a V-shaped lip. This bottle is slimmer and taller than the mallet forms, and represents the transition to the modern-day wine bottle style. Using a regression formula proposed by Vithayasai, Cohen and Aylesworth (cited in Jones 1986:163), the bottle's volume is



Scale 1:4

Figure 8.1. Profiles of Wine Bottles from Area E, Ferryland.

Notes:			
	A	Type F Squat Onion	406777a
	B	Type F Squat Onion	394835
	C	Mallet	400153b, 406776
	D	Cylindrical	398074
	E	Cylindrical	65975a
	F	Mallet	66784c,d
	G	Mallet	62349a,b, 397645

Figure 8.2. Precylindrical Type F Squat Onion and Squat Cylindrical Wine Bottles from Area E, Ferryland.

Notes:		
	Precylindrical	394832, 394839a-e, 394844, 395791, 404073, 404074
	Squat Cylindrical	392754, 398539, 407567, 407569

estimated to be 951ml, and falls with the Queen Anne wine gallon (quart 946ml) capacity. Together the lip and form date this bottle to the 1760s-1770s (Jones 1986:53, 78, Dumbrell 1983:43). The remaining four bottles all had lips the same thickness as the neck and, therefore, date between 1735 and the 1760s (refer to Group 1 in Jones 1986:49). The first bottle, blueish green in colour, is represented by a finish with a cracked-off lip and V-shaped string rim (E in Figure 8.1). The second bottle, light green with seed bubbles, is represented by a finish with a cracked-off and fire-polished lip and a V-shaped string rim (D in Figure 8.1). The neck is slightly tapered. The next two bottles are represented by bases with dome-shaped pushups and rounded heels. The bases exhibit wear marks suggesting they were used as decanters placed directly on a table. The last bottle consists of a base with a bulged heel, which was common on the mallet-shaped wine bottle, but continued to be used until the 1820s (Jones 1986:91).

8.3.3 Unidentified

The form of one bottle could not be identified. It is represented by a body sherd bluish green in colour with many seed bubbles.

8.3.4 Discussion

8.3.4.i Dating

The wine bottles recovered suggest an occupation date range of 1698 to the 1760s for the structure. Analysis of the wine bottle fragments excavated in 1993, including those from the upper plowzones, also dated the structure from roughly 1700 to the 1760s (Wicks 1999a:92-93).

8.3.4.ii Trade

Each wine bottle appears to be of English origin. This is not surprising for British wine bottles gained a reputation for their strength shortly after the industry switched from wood- to coal-fired furnaces. Additionally, following the Restoration of Charles II in 1660, the consumption of wine increased greatly resulting in an increase in the production of wine bottles (Wicks 1999a:24). By the end of the seventeenth century, the bottle-glass market had grown immensely to an annual output of nearly three million single bottles (Jones 1986:11). In 1694, only eight dozen bottles were recorded as having been imported into England indicating that the local glasshouses succeeded in satisfying the home market demand (Wicks 1999a:25).

Although London was the largest glass producing region in England by the first quarter of the eighteenth century, Bristol commanded the export trade shipping bottles overseas filled with beer, cider, wine and in some instances natural spring and mineral water (Dumbrell 1983:21). As a regular cargo, British glassware has been uncovered on numerous North American archaeological sites (Wicks 1999a, Noël Hume 1970a). The wine bottles recovered from Area E were most likely shipped through Bristol. The wide range of forms, spanning from precylindrical squat onion bottles to squat cylindrical bottles, illustrates the availability of such forms to the eighteenth-century inhabitants of Newfoundland and alludes to the consumption of imported alcoholic beverages.

8.4 Stemmed Drinking Glasses

For centuries, English glassmakers attempted unsuccessfully to imitate Venetian *cristallo*, a thin colourless glass used for drinking vessels (Jones and Sullivan 1989:10). During the fifteenth and

sixteenth centuries, Venetian glassmakers were enticed to set up shops in other European cities and in 1571 *cristallo* began to be produced in England (Noël Hume 1970a:184). By the mid-seventeenth century adequate supplies of soda to make *cristallo* were difficult to obtain. As well, consumer taste had shifted to heavier, less fragile colourless glass (Jones and Sullivan 1989:11). The London Glass Sellers Company began to sponsor research into finding a new glassware and in 1676, George Ravenscroft developed potash-lead glass, a more durable, transparent lead crystal (Noël Hume 1970a:186, Jones and Sullivan 1989:11). By 1690, British glass was well established in the colonial market (Noël Hume 1970a:187).

The first lead drinking glasses reflected earlier intricate Venetian styles, but in the seventeenth century forms were quickly simplified (Noël Hume 1970a:189). Stemware, which included wine glasses, goblets and ale glasses, was intended for the consumption of various beverages and was produced in several sizes and bowl shapes: trumpet, waisted, bell, ogee, bucket and funnel (Smith 1983:37, Turnbull and Herron 1970). Several different styles of stems were also manufactured including balusters, inverted balusters, knops and collars (Noël Hume 1970a:190-191). In 1700, air bubbles were introduced into the stems and around 1755 opaque white threads were also set into the stem (Pearsall 1999:47; Noël Hume 1970a:190-191). Both were frequently twisted into intricate patterns. Spurred on by the Excise Act introduced in Britain in 1745, which levied a considerable duty on glass according to weight, drinking glasses began to be engraved to produce lighter vessels (Pearsall 1999:47). Ornamental cut-glass in diamond, crescent, triangle, and diamond honey-comb motifs gained popularity in England around 1760 (Noël Hume 1970a:193, Pearsall 1999:50). Enamel decorations were applied to stemware between 1762 and 1780 (Pearsall 1999:47).

Two stemware vessels are in the glass assemblage from Area E. The first is a rim fragment, measuring 1.5 mm in thickness and 6 cm in diameter, from a wine glass with a bell-shaped bowl. Made of lead, this wine glass possibly originated from Britain. The second fragment is the upper portion of a six-sided hollow-moulded pedestal stem (see figure 17 in McNally 1979:67). *Silesian* or *bouton carré* stemware was produced in Bohemia, France and England. Originally, Bohemian pedestal stems were cut rather than moulded (McNally 1979:35). For French manufacturers, *bouton carré* stemware was common during the 1760s, and examples have been uncovered at Louisbourg and on the *Machault* in deposits dating to the third quarter of the eighteenth century (McNally 1972:10-11, 1979). As this piece is not crizzled, a common characteristic of French glass, it is likely not of French provenance, but rather was most likely manufactured in England.

8.5 Decanters

The earliest colourless decanters were manufactured by George Ravenscroft following his discovery of potash-lead glass in 1676 (Noël Hume 1970a:186). Prior to this, dark olive green wine bottles were used to serve alcoholic beverages from storage vessels such as casks. Intended to be placed directly on tables, the first decanters were decorative items imitating Venetian styles, but by the first quarter of the eighteenth century, forms were simplified (Davis 1972:18-19).

The use of decanters became widespread from the 1700s onwards as a means of eliminating the dregs from alcoholic beverages (Pearsall 1999:30). At first, bodies took on a shaft and globe shape, but in the 1720s mallet-shaped decanters with six or more sides began to be produced (Davis 1972:19). Between ca.1730 and 1750, a four-lobed cruciform-shape became quite popular

because it could cool wine quickly and more easily (Jones and Smith 1985:28, Davis 1972:36). In the next decade, decanters became taller and the shoulders more sloped; this form was evidently known as the shouldered decanter (Davis 1972:19). Decorative techniques include engraving and gilding used to make flowing motifs or for labelling, and cutting or moulding used to make geometric motifs (Jones and Smith 1985:25). In 1745, the Excise Act was introduced and decanters began to be faceted resulting in thinner walls and lighter vessels. Around 1762, enamelled designs began to be applied as well (Davis 1972:20). Following 1665, decanters were frequently provided with individually ground glass stoppers in a wide variety of styles and sizes (Jones and Sullivan 1989:151).

The Area E glass assemblage contains a single decanter body sherd and two decanter stoppers. The colourless body sherd is flat indicating that it is from either a mallet- or cruciform-shaped decanter. The fair thickness of the sherd, 5 mm, suggests the latter form as these decanters, usually placed in a bowl of water to cool, were made thicker to withstand constant handling (Davis 1972:36, Jones and Smith 1985:28). The first glass stopper uncovered is represented by a complete, colourless, hallow ball finial, 21 mm in diameter (see figure 137 in Jones and Sullivan 1989:157). Such plain rounded stoppers were in vogue in the early eighteenth century (Davis 1972:19). The second stopper is an incomplete, colourless ball finial decorated with air bubbles or tears. This form of stopper was allegedly popular between 1720 and 1735 (see example 7 in Noël Hume 1970a:197), but is the most common stopper finial found on colonial military sites dating to the 1750s and 1760s (Jones and Smith 1985:28). Glass stoppers were often manufactured for individual decanters and problems arose when stoppers were lost (Pearsall 1999:48). The presence of the two stoppers suggests that there were at least two decanters in the

owner's collection, one of which was cruciform in shape. Together with the wine glasses, the decanters suggest the consumption of such alcoholic beverages as wine, brandy and rum, all available to the inhabitants of Newfoundland during the eighteenth century (Ruck 1715a, Howe 1797).

8.6 Medicinal Vials

Glass vials for pharmaceutical use began to be manufactured in England in the late sixteenth century (Noël Hume 1970a:72). Although early bottles came in a variety of shapes and sizes, three distinct forms predominated. The first form was a small, moulded bottle with four, six, seven or eight sides, green in colour with a tooled-out short neck (Noël Hume 1970a:73). The second form was a thin globular bottle, pale green or yellow in colour, with a straight neck and no string rim. The last form was cylindrical, slightly broader at the shoulders than base, with a conical shaped pushup. This latter style was free- or mould-blown, and ranged in colour from pale to emerald green and amber (Noël Hume 1970a:73, Wicks 1999a:26). By the mid eighteenth century, clear cylindrical vials also began to be produced, some of which were mould-blown and embossed with the name of a patentee or specific dealer of elixirs (Noël Hume 1969:43).

Three cylindrical vials were recovered from Area E. The first is a dark green mould-blown vial with a conical pushup, abrupt heel and a base diameter of 25 mm. A thin sheet of glass covering the pontil mark suggests that a glass-tipped pontil rod was used in its production. The second vial is emerald green in colour with a conical pushup and base diameter of roughly 40 mm. The last vial is light blue-green in colour with many tiny seed-bubbles characteristic of French glass (Harris 2000:236). As the body diameter is 40 mm it may belong to a medium sized *fioles*. Vials

were intended to contain proprietary medicine, but could have been used to store other items such as powdered colours for paints and inks, spices and toiletries (Jones and Smith 1985:90). Listed contents for *fioles* include *elixir*, *Sirop de Capilaire*, or *eau de lavande* (lavender water) (Harris 2000:235). The presence of the pharmaceutical vials accounts for the medicinal needs of the inhabitants to treat common ailments.

8.7 Unidentified

A single glass fragment within the Area E assemblage could not be identified as to function. Uncovered within Event 95, this sherd is light bluish green in colour and slightly curved suggesting it is a body sherd to a holloware vessel.

8.8 Discussion

8.8.1 Dating

The wine bottles provide the Area E glass assemblage with a date range of 1698 to the 1760s. The remaining glass artifacts fall nicely within this date range (Table 8.2).

8.8.2 Function

The glass assemblage was grouped into functional categories based on those presented by Beaudry et al. (1988) (Tables 8.3 and 8.4). Almost 80 percent of the assemblage consists of Beverage Consumption vessels. Approximately 67 percent (or 16 vessels) were used solely for serving alcoholic beverages. The Health/Hygiene category follows in rank with 13 percent. The Other and Unidentified categories are represented equally at 4 percent.

Table 8.2. Date Ranges For Glass Artifacts from Area E, Ferryland.

Type	Date Range
Wine Bottles	1698-1760s
Cruciform-shaped Decanter	ca.1730-1750
Ball Finial Stopper with Air Bubble	1720-1760s

Table 8.3. Functional Divisions of Glass Vessel Forms from Area E, Ferryland.

Beverage Consumption	
Individual (1 pint or less)	Serving
Wine Glass	Wine Bottle
Tumbler	Decanter
Health/Hygiene	
Pharmaceutical Vials	

Table 8.4. Vessel Frequency by Functional Division for Area E Glass Assemblage.

Functional Category	MNV	Percentage
Beverage Consumption	19	83%
Health/Hygiene	3	13
Unidentified	1	4
Total	23	100%

8.9 Conclusion

A total of 23 glass items are in the Area E assemblage: 14 wine bottles, 2 stemware, 3 decanters, 3 pharmaceutical vials, and 1 unidentified sherd. Overall, the assemblage has a date range of 1698 to ca.1760s and is comprised predominantly, if not exclusively, of English pieces shipped overseas possibly through Bristol. Almost 80 percent of the glass collection is related to the consumption of imported alcoholic beverages such as wine, rum and brandy.

Chapter Nine
The Clay Tobacco Smoking Pipe Assemblage

9.1 Introduction

The smoking of tobacco by "an instrument formed like a little ladell" was practised in England by 1573 (cited in Oswald 1975:3). By the seventeenth century, this new custom was widely practised amongst European society for both medicinal and social purposes (Oswald 1975:3-5). The following chapter will discuss the smoking pipes recovered from Area E. A brief history of smoking pipes and tobacco use is presented first, followed by an explanation of the methods used behind quantifying and classifying the clay pipe collection. Lastly, maker's marks and bowl forms are analyzed in an attempt to determine a date range for the assemblage as well as to infer trade patterns.

9.2 History

By the seventeenth century, tobacco use had widely spread throughout Europe despite some adversity towards this new custom: Pope Urban VIII decreed excommunication of anyone caught taking snuff in church; Tsar Michael sanctioned that smokers would be whipped after their first offence and executed following their second, and King Louis XIII initially imposed a tax on tobacco in an attempt to curtail its use, but unhappy with the results restricted its sale solely to physicians (MacInnes 1926:22-23). Believed to heal wounds, counter rheumatic and respiratory problems and lengthen life, tobacco was initially taken for medicinal purposes in the form of snuff (von Gernet 1995:76). In the 1570s, the smoking pipe was introduced and social smoking, advocated by several high society gentlemen including Sir Walter Raleigh, became quite fashionable (Oswald 1975:3; Gaulton 1999:26).

Many eighteenth-century English smoking pipes were mostly made of kaolin giving the pipes a fine white appearance, in comparison to Dutch smoking pipes which tended to be grey and French pipes which were often brown (Oswald 1975:11). Smoking pipes intended for "more robust activities" such as travelling and hunting were made of metal, such as silver, iron, brass and pewter (Bradley 2000:120). Porcelain, stone and possibly wood were also used in rare instances for smoking pipes during the eighteenth century (Bradley 2000:121-122). Since the 1600s, smoking pipes began to be produced in the American colonies in a variety of coloured clays (Bradley 2000:118). As crude copies of European styles, these pipes were manufactured primarily to fulfill local demand. In Canada, the pipemaking industry did not begin until the 1840s (Bradley 2000:117).

Once broken, the smoking pipe fragments could be reused for a number of purposes. Stems could be reworked into crude flutes or whistles (Huey 1974) or heated and used to curl hair or wigs as well as dry out gun barrels (Walker 1976). Fragments were also employed as ballast for ships (Jones 1976), paving material (Sudbury 1978), or ground into a powder and used to remove grease from clothing or to whiten teeth (Walker 1976).

9.3 Quantification and Classification

Approximately 1,429 fragments of smoking pipe were uncovered in Area E, representing at least 19 pipes. Only those sherds recovered from stratigraphic layers pertaining to the eighteenth-century structure and their crossmends were analyzed in this chapter. Interesting finds uncovered in disturbed contexts, but dating to the eighteenth century and thus possibly affiliated with the structure, are presented in Chapter 12.

The smoking pipe assemblage was first grouped according to portion -bowl, stem, heel- and mends and crossmends sought. Bowl forms were assigned according to Oswald (1975) and Walker (1977). Maker's marks were analyzed, stem bore measurements taken and diagnostic attributes drawn.

9.4 Maker's Marks, Regional Styles and Trade

During the seventeenth century, a few pipemakers began to mark their products with their initials or symbols on either the bottom of the heel, along the side of the heel, on the bowl or on the stem. Two smoking pipes excavated from Area E exhibit such marks. The first is a moulded cartouche exhibiting the letters H/EDWA/RDS on the right side of the bowl (Figure 9.1). This mark has been identified with Henry Edwards, a pipemaker in Bristol between 1699 and 1727 (Gaulton 1999:46; Walker 1977:1418). The second mark is also a cartouche on the right side of the bowl, but unfortunately, is illegible. The placement of the moulded cartouche on the right side of the bowl, however, was a popular style produced in Bristol and the West Country from the last decade of the seventeenth century to at least the 1780s (Oswald 1975:70). The bowl is slightly curved forward as is the spur suggesting a date of manufacture from ca.1690 to 1710 (C in Figure 9.2; Table 9.1; see example 19 in Oswald 1975:40-41).

In addition to maker's marks, bowl forms and decorative motifs can also allude to the origin of the smoking pipe. One white clay pipe in the collection possessed a bulbous bowl with rouletting beneath the rim and a slight variant of a spur (A in Figure 9.2; Table 9.1). This pipe appears to have been produced in North East England and Yorkshire between 1650 and 1680 (example 10 in Oswald 1975:44-45). One plain white clay smoking pipe recovered has a tall, nearly upright

Figure 9.1. H/EDWA/RDS, Relief Cartouche on the Right Side of the Bowl. This mark has been identified with Henry Edwards, a pipemaker in Bristol between 1699 and 1727 (Gaulton 1999:46; Walker 1977:1418). Photo by Ron Hyde.

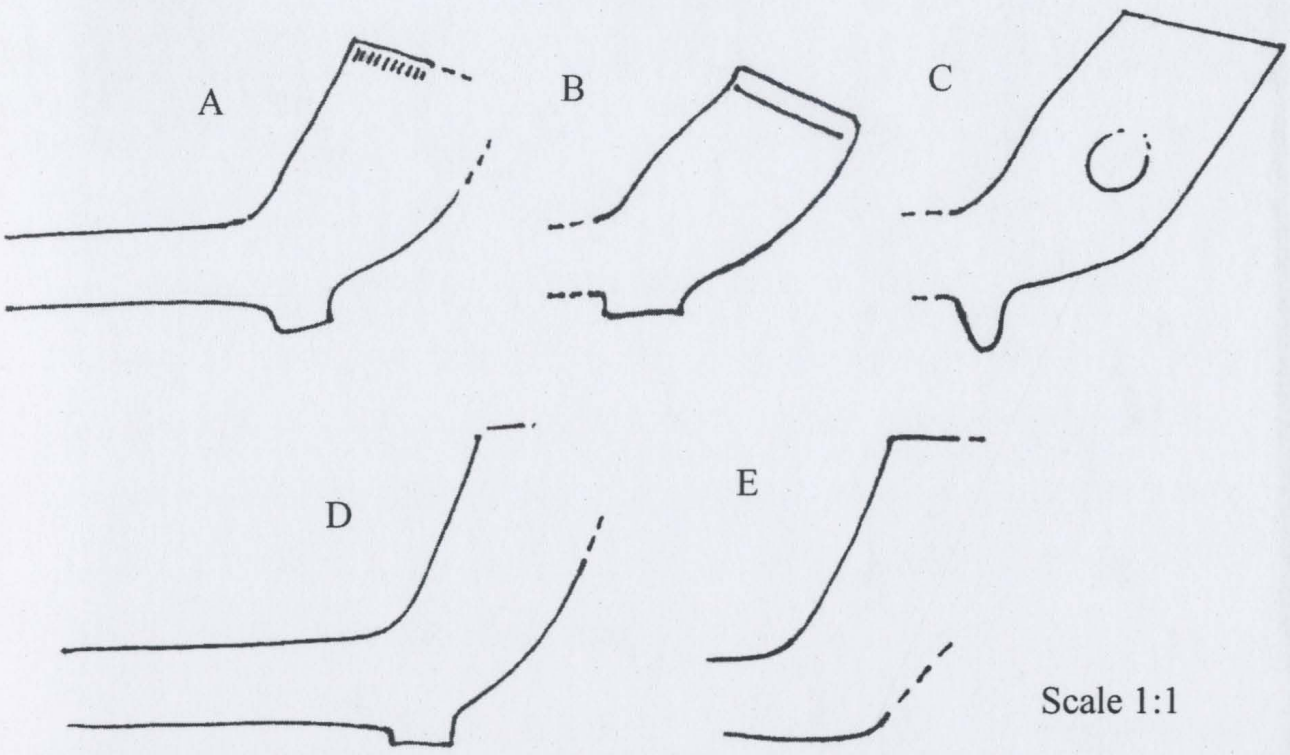


Figure 9.2. Clay Tobacco Pipes from Area E, Ferryland.

Table 9.1. Clay Tobacco Pipe Date Ranges, Area E, Ferryland.

	Catalogue Number	Decoration	Bowl	Heel	Bore Size	Event	Date Range
A	398453	Rouletting beneath rim	Bulbous	Spur variant	6	95	1650-1680
B	398443	Incised line beneath rim	Bulbous	Flat		101b	1650-1680
C	402980a-d	Relief cartouche	~Straight	Spur	5	101b	ca.1690-1710
	400275	H/EDWA/RDS Moulded Cartouche				101b	1699-1727
D	395404		Straight	Peg Spur	6	498	ca.1730-1760
E	398442			Heelless	5	101b	1730-1760

Note: The letters in the first column correspond to those in Figure 8.2.

bowl with a large peg-style spur (D in Figure 9.2; Table 9.1). A similar example with a partially flared rim, a characteristic of the West Country pipemaking industry, was excavated from the *HMS Sapphire* wreck in Bay Bulls, Newfoundland (Richie 1978:6, 17-18; Bradley 1983:3). Unfortunately, the portion of the lip that may exhibit the flare to confirm a West Country provenance is missing from the Area E specimen. Some pipemakers, commonly those of Bristol, produced styles exclusively for the export to the North American colonies such as the heelless version recovered (E in Figure 9.2; Table 9.1; see examples 16 and 29 in Oswald 1969:130-134). Simplified in form, this style was easier to mould, required less trimming and finishing, and was less costly to manufacture (Alexander 1979:45).

Studies of seventeenth-century assemblages from Ferryland have revealed that most of the smoking pipes originated from the West of England particularly Exeter, Devon and Bristol (Pope 1989b:13-14; Nixon 1999a:150; Crompton 2001:206). This is not surprising considering the commercial role of the West Country in the Newfoundland fishery, a commercial tie that continued well into the eighteenth century. Smoking pipes of Dutch and American origin have also been found at Ferryland within seventeenth-century deposits (Crompton 2001; Gaulton 1999; Nixon 1999a; Pope 1989b). Only English pipes have been uncovered in the Area E assemblage suggesting that the smoking pipe trade was prominently, if not exclusively, British during the first half of the eighteenth century. The colonies were an important market for British pipemakers and smoking pipes were often shipped overseas from London, Bristol and to a lesser extent Broseley (Oswald 1975:113). The white clay tobacco pipes underline the importance of the commercial connections with the West Country, particularly the port of Bristol. The presence of a smoking pipe produced in North East England and/or Yorkshire, however, does not indicate

direct trade with these important pipemaking regions, but rather illustrates an extensive distribution within Britain and redistribution to overseas markets.

9.5 Dating

Possessing a short use-life and having undergone a variety of stylistic changes at specific periods of time, the white clay smoking pipe is one of the most useful dating tools for historical archaeologists. Smoking pipes of the seventeenth century tended to have small bulbous bowls that angled away from the smoker, and short stems with large bores. As the century progressed and tobacco prices dropped, many English pipemakers began to adopt new designs to accommodate the demand for greater amounts of tobacco (Atkinson 1986:111). Pipe bowls became straighter, longer and thinner, and stems became longer and narrower (Oswald 1975:37). A few production centres, however, were slow to adapt to these changes and a wide variation of smoking pipes existed between different parts of the country. For example, in Yorkshire, the bowl form developed ever so slowly during the second half of the seventeenth century (Lawrence 1979:67), and in the West Country, pipemakers continued to produce seventeenth-century styles with larger bowls well into the next century (Atkinson 1986:111).

At the start of the eighteenth century, the squat bulbous bowl forms typical of the previous century gradually became straighter, larger and longer. Two bulbous examples dating to ca.1650-1680, and one transitional bowl form dating between ca.1690 and 1710 were recovered from Area E (Figure 9.2; Table 9.1; for example of transitional pipe see example 19 in Oswald 1975:40-41). The latter smoking pipe has a larger bowl with slightly straighter sides, a spur and a bore diameter of 4/64th inches. The plain white smoking pipe with a tall, nearly upright bowl

and a large peg-style spur and the heelless pipe both date between ca.1730 and 1760 (see example 11 in Oswald 1975:37,39 and example 27 in Oswald 1975:40-41 respectively).

The analysis of maker's marks, pipe forms and decorative motifs has yielded a broad date range of 1650 to 1760 for the assemblage. Ferryland, however, was razed by the French in 1696 and reinhabited the following year indicating that the eighteenth-century structure could not predate 1697. The date range is thus tightened to ca.1697-1760. The two squat bulbous bowl examples recovered, dating to ca.1650-1680, therefore, derive from earlier contexts and were misrecorded.

Using Binford's (1978) mean date formula based on Harrington's (1978) stem bore diameter analysis, the Area E smoking pipe assemblage yielded a mean date of 1718 (Appendix 5). A high concentration of pipe stems with bore diameters of 6/64th inches implies a peak occupation period during the first quarter of the eighteenth century. Caution should be taken with Binford's (1978) and Harrington's (1978) formulas as both are based on the assumption that pipe stem bores decreased in size at regular time intervals between roughly 1620 and 1800. Recent studies have shown that this decrease was subject to local variation and that different-sized bore tools were sometimes used simultaneously by a single pipemaker (Crossley 1990:275; Higgins 1997:131). Additionally, sample size is of a concern. Although small samples of approximately 100 smoking pipe fragments have produced reliable results for earlier deposits (Oswald 1975:126), a larger sample, ideally of at least 900 fragments, is recommended to obtain an accurate date. The Area E sample contained 86 dateable stem fragments. Mean dates could not be calculated for individual deposits as an insufficient number of dateable stem fragments were recovered from each layer.

9.6 Conclusion

Being possibly the most ubiquitous artifact on historic archaeological sites, clay smoking pipes provide a lasting reminder of the important tobacco trade and the importance of the social practice of smoking. The smoking pipe assemblage from Area E indicates that trade connections with the West Country, particularly the port of Bristol, established during the seventeenth century continued into the next century. The assemblage has a date range of ca.1697 to 1760 with a possible peak period of occupation in the first quarter of the eighteenth century.

Chapter Ten
The Faunal Assemblage

10.1 Introduction

During the eighteenth century, the inhabitants of Newfoundland supplemented their garden produce and external food supplies with local faunal resources. At this time, the island was populated by 14 indigenous mammals and assorted species of bird. The waters were inhabited by a variety of marine animals particularly codfish which coaxed numerous fishing ships to the island each summer. The following chapter will examine the faunal assemblage from Area E to develop an understanding of the faunal resources available to the eighteenth-century residents of Ferryland as well as shed light on consumption and husbandry patterns.

10.2 Methodology

Only faunal remains from the deposits affiliated with the structure in Area E were analysed in this chapter. Bone fragments were identified to element, species and, where possible, age. Age estimates were based on tooth eruption and wear patterns using figures given by Schmid (1972) and Hilson (1990) and epiphyseal closure times provided by Storä (2002) and Schmid (1972). Minimum number of individuals present in the collection was determined from the principle bones of the body using the Chaplin (1971) method.

10.3 State of the Assemblage

With the exception of seal bones, which are quite dense in composition and thus have a preferential surviving rate, the faunal remains from Area E were in a relatively poor state of preservation and highly fragmentary. Several elements in the assemblage were also burnt. Post-depositional disturbances were present in the form of rodent chewing marks and trowel trauma

marks. No fish bone was recovered during the excavations. This is surprising considering that codfish was an easily acquired commodity and as fishing hooks were uncovered in the structure, the inhabitants did indeed dine on fish. The lack of fish bone is most likely a result of bacterial degradation and/or a sampling bias. Lastly, the faunal assemblage, being small in size, does not represent an accurate assessment of taxonomic abundance. It does, however, provide some information concerning consumption and husbandry patterns.

10.4 The Faunal Assemblage

A total of 143 elements were excavated from the deposits affiliated with the structure in Area E. The distribution of elements by zoological class is given in Table 10.1.

10.4.1 Mammalia

Of the 50 mammalian bone fragments recovered only 30 could be identified to the species level. Seal (family *Phocidae*) accounted for 16 of the 50 mammalian elements, three of which were identified as potential harp seals (*Phoca groenlandica*). Domestic pig (*Sus scrofa*) followed with 15 elements, domestic cow/horse (*Bos taurus/Equus caballus*) with four, domestic cow (*Bos taurus*) with two, and domestic sheep/goat (*Ovis aries/Capra hircus*) with one. Nine elements were designated as large mammal indicating cow/horse/caribou (*Bos taurus/Equus caballus/Rangifer tarandus*) and two elements were categorized as unidentified mammal.

10.4.2 Aves

Only two avian elements were recovered. One bone fragment was identified as possibly belonging to a Common Murre (*Uria aalge*) or something similar. The other bone could not be

Table 10.1. Distribution of Area E Faunal Remains by Zoological Class.

Class	Number of Elements
Mammalia	50
Aves	2
Osteichthyes	0
Pelecypoda	19
Gastropoda	8
Unidentified	64
Total	143

identified to the species level.

10.4.3 Pelecypoda

All 19 fragments of pelecypoda were periostracum flakes, possibly belonging to the Horse Mussel (*Modiola modiolus*). Interestingly, Horse Mussels were common to the area during the eighteenth century, but generally unfit to eat (Berg 1978:13).

10.4.4 Gastropod

The eight shell fragments recovered belonged to at least two snails and were most likely deposited naturally.

10.4.5 Unidentified

Sixty-four elements recovered could not be identified to class. Eighteen of these miscellaneous fragments were burnt.

10.5 Determination of Age at Time of Death

Data relating to anatomical epiphyseal closure time in addition to eruption times and wear patterns of teeth was used to determine the age of the animals at the time of their death. These calculations are rough age estimates as comparative estimates are based on data from modern livestock, and the quality and quantity of food available to the modern stock may have affected the growth of the animals thus leading to variations in epiphyseal fusion (Berg 1978). Additionally, differences between sexes were not taken into account.

10.5.1 Seal (family *Phocidae*)

Three right-sided seal humeri belonging to either harp or hooded seals were recovered from Event 95. The first was complete with both its proximal and distal epiphyses fused, the second was only a proximal fragment with its epiphyses fused, and the last was a tiny shaft fragment. Fusion of the proximal epiphysis of humeri occurs within seals usually older than 5 years (Storä 2002:52) when most harp and hooded seals are in the early stages of sexual maturity (Table 10.2). Therefore, at least two seals in the assemblage were young adults, older than 5 years, at the time of their deaths.

A thin interorbital bone fragment was also recovered from Event 95 suggesting that this seal was relatively young the time of its death.

10.5.2 Domestic pig (*Sus scrofa*)

One domestic pig (*Sus scrofa*) humerus was excavated with a fused distal epiphysis indicating that the animal was at least 1.5 years old when it was slaughtered (Schmid 1972:75). Ten domestic pig teeth were also uncovered: 7 molars, 2 premolars, 5 unidentified. Age estimates based on tooth eruption times and tooth wear patterns for *Sus* are outlined in Table 10.3. Although the estimates obtained are rough calculations, it appears that the pigs at the site were killed at approximately the age of 1.5 years.

10.5.3 Sheep/Goat (*Ovis aries/Capra hircus*)

A partially worn molar (m_1) from a sheep/goat (*Ovis aries/Capra hircus*) was recovered from Event 106. The minimally worn cusps indicate that the tooth had erupted shortly before the

Table 10.2. Age of Maturity for *Phoca groenlandica* and *Cystophora cristata* seals.

Species	Sex	Sexual Maturity
Phoca groenlandica	Male	4 - 8 years
	Female	4 - 8 years
Cystophora cristata	Male	around 10 years
	Female	3 - 7 years

Note: Ages of sexual maturity given by Sergeant 1985:4 and Storä 2000:221.

Table 10.3. Age Estimates for Domestic Pigs in Area E Faunal Assemblage.

Catalogue Number	Event	Identified Tooth	Tooth Wear Stage	Age Estimate (in years)
61586a	95	m_3	b	>1.5
61586b	95	$m_{1/2}$	d	>1.0
70536a	95	$m_{1/2}$	c	>0.5
70536b	95	$m_{1/2}$	e	>1.0
391797	95	m_3	b	>1.5
59648	98	p_4	a	1.5
67481	101	p_4	c	>1.5
67497	101	m_1	f	>1.0
67498	101	m_2	d	>1.0
670239a-e	101	unidentified	-	-

Notes: Age estimates are based on tooth eruption times and wear patterns from figures provided by Schmid (1972) and Hilson (1990).

Tooth Wear Stages outlined in Hilson 1990:Appendix B.

m indicates molar.

p indicates premolar.

animal was butchered between approximately the age of 6 to 12 months (Hilson 1990: Appendix C).

10.6 Minimum Number of Individuals

The Minimum Number of Individuals was calculated using the Chaplin (1971) method. The bones were initially grouped according to species and element, and if possible, then matched against each other in respect to age and size. All correlating strata were treated as a single layer and a conservative MNI was calculated. The remains of at least three seals, three pigs, two cow/horse, one sheep/goat and one unidentified large mammal are present in the collection (Appendix 6).

10.7 Seasonality

10.7.1 Seal (family *Phocidae*)

Sixteen of the 50 mammalian bone fragments belonged to the family *Phocidae*. Three fragments were identified as potential harp seal. The remaining elements originated from either harp or hooded seals.

Harp seals (*Phoca groenlandica*) are highly gregarious migratory seals that inhabit the sub-Arctic waters of the North Atlantic. Each year following the freeze-up of the arctic bays, harp seal herds numbering hundreds and hundreds of thousands make their way south to the Straits of Belle Isle arriving around late December to early January. In the Straits they separate into two breeding groups: the first continues to the Gulf of St. Lawrence and the second heads to the Grand Banks on the east coast of Newfoundland. In late February, as pack ice forms off the northern Grand

Banks the harp seals use this opportunity to whelp, mate and moult on the sea ice. In May, the seals commence their northward migration returning to the sub-Arctic (Banfield 1974:375-378).

Hooded seals (*Cystophora cristata*) are an aggressive pelagic species that also inhabit the sub-Arctic waters of the North Atlantic. During October, hooded seals migrate down the coast of Labrador and Newfoundland to their deep-water winter feeding grounds, which include the Grand Banks. They haul out on the arctic pack-ice about late February and begin whelping by mid-March. The females desert their young bluebacks after a rapid suckling period of no more than eight days and begin their northward migration to southern Labrador. The pups follow in late March or early April (Banfield 1974:378-380, Sergeant 1985:2).

Seals were captured by setting up large nets off the headlands and along the shores of bays and inlets (Tait 1939:86). Men then rowed in small open boats out to the edge of the floating pack ice and shot the seals. Later, small sailing vessels were used. As seals were more easily taken out on the ice than when in open waters, the presence of seal remains in the faunal assemblage indicates a late winter to early spring hunt.

10.7.2 Domestic pig (*Sus scrofa*)

A premolar uncovered in Event 98 revealed a definitive time of death of 1.5 years. As piglets are born in the spring, the archaeological specimen was slaughtered in the autumn or at the beginning of the winter, an ideal time of year as hogs tend to be at their fattest and meat could be easily prepared for upcoming winter months; carcass' needed to be chilled thoroughly before they were salted, or else microbial growth would spoil the muscle fibre (Bowen 1988:166).

10.8 Butchering, Cooking and Dining

One long bone from a cow or horse (*Bos Taurus* or *Equus caballus*) shows signs of butchering: incisions caused by forces being applied across the bone with a long sharp implement such as a saw (Figure 10.1, Byers 2002:313). Cooking practices are evident in the 20 elements thoroughly calcined, one of which is a large mammal scapula.

Evidence of dining also existed within the Area E faunal assemblage. An avian humerus, possibly from a Common Murre, exhibited knife cut marks on the shaft (Figure 10.2) and two punctures, together measuring 85 mm in length and 42 mm in width, on the distal end. The latter marks penetrated the cortical bone and may be the result of someone having attempted to extract marrow from the bone.

10.9 Discussion

In 1621, on behalf of George Calvert, Captain Edward Wynne and a small group of men settled in Ferryland and began the construction of a small colony (Wynne 1622a). In a letter to Calvert, Wynne asked if "some goats, a few tame conies [rabbits] for breed, as also pigs, geese, ducks and hens" could be sent, but no cattle as he could not provide fodder for them (Wynne 1621). The following year Wynne wrote, "we have a meadow of about three acres; it flourished lately with many cocks of good hay, and now it is made up for a winter feeding" (Wynne 1622b). On an island with a harsh climate and poor soils, Wynne and his men were one of the first, if not the first, to attempt small-scale animal farming. By the 1640s, swine husbandry, an efficient sideline to fish-processing, was actively practised on the South Avalon (Pope 1992:77, 2004:344). Few farmers kept cattle at this time and most of those that did kept only one or two (Pope 2004:345).

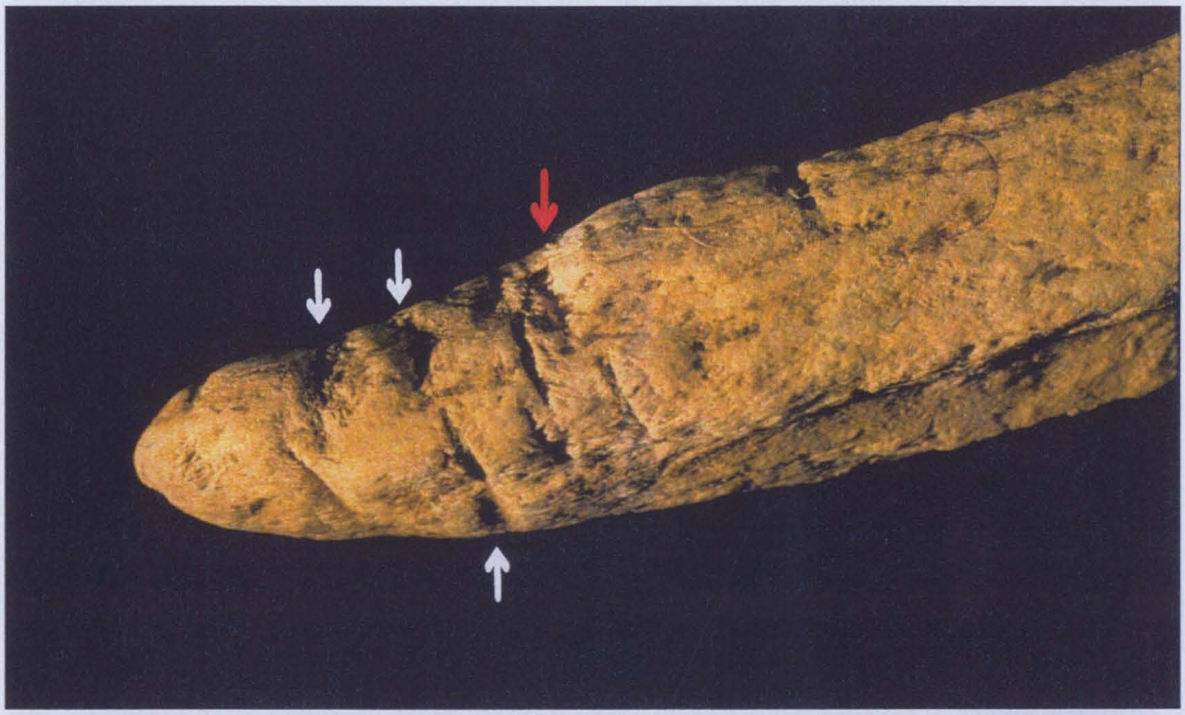


Figure 10.1. Incisions and Notch Marks on a Cow or Horse Long Bone, Catalogue Number 391758c. The white arrows indicate marks possibly made by a saw, whereas the red arrow indicates trowel trauma. Photo by Ron Hyde

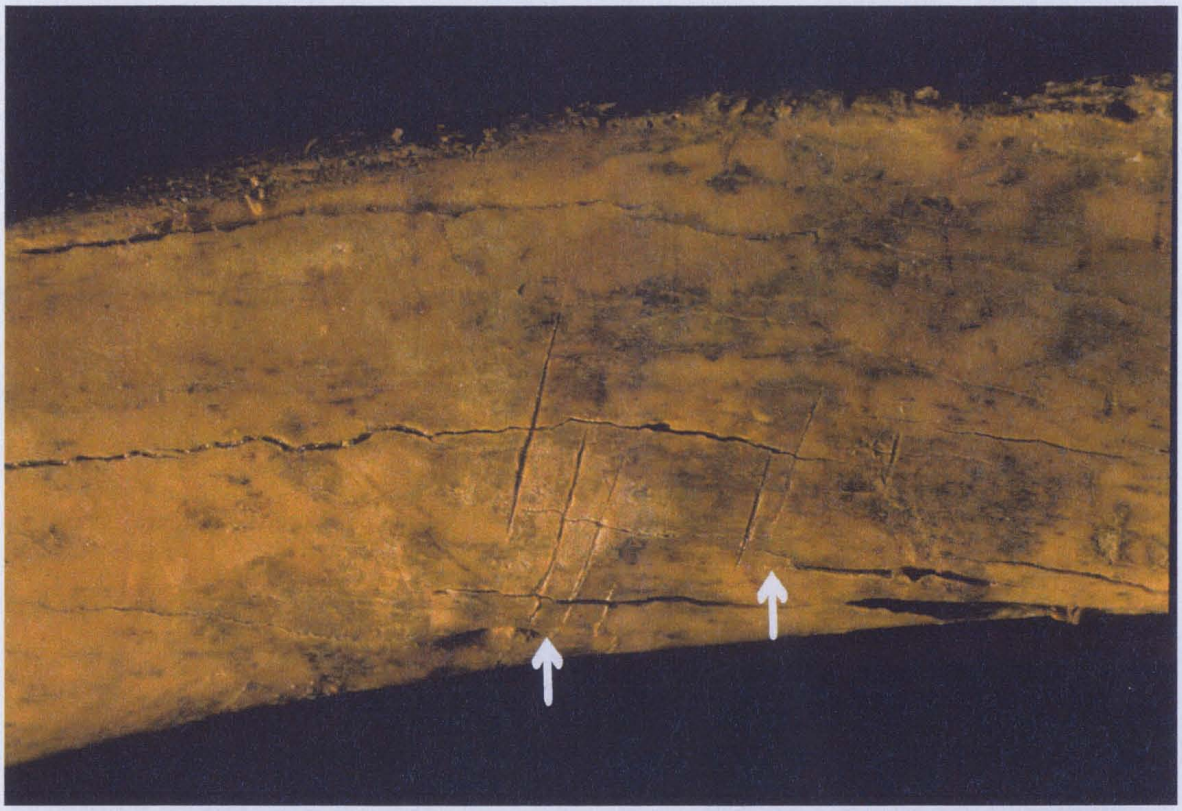


Figure 10.2. Knife Cut Marks on a Bird Humerus, Catalogue Number 70530. The white arrows indicate the location of the knife marks. Photo by Ron Hyde.

During the eighteenth century, swine and cattle husbandry increased and in 1790 Mrs. Keane of Ferryland was reported owning 14 cattle (Smallwood 1984:59). Ownership of such a large number of cattle suggests that Mrs. Keane may have sold fresh meat or by-products such as milk and butter to local residents or fishing crews.

Early accounts of the south Avalon also describe the array of indigenous mammals available to the early colonists such as caribou, bear, beaver, otter, muskrat, fox, ermine, marten, and lynx (Poynter 1963:58; Pope 2004:339). Wild fowl included geese, ducks, murres, falcons, ospreys, ravens, gulls and owls (Hoskins 1622). The waters off the coast were inhabited by a variety of commercially exploitable marine resources such as codfish, and at specific times of the year, seals.

During the eighteenth century, the inhabitants of Newfoundland relied heavily on imported food supplies: bread, peas, cheese, rum bought from New England traders and salted pork and beef provisions from Ireland. Residents supplemented their external food sources with produce from small garden plots; plots containing possibly peas, beans, lettuce, radishes, carrots, cabbage, turnips, and after the mid-eighteenth century, potatoes (Wynne 1622a, Webb 1999:9.5). Wild provisions included strawberries, raspberries and blueberries (Poynter 1963:58).

Analysis of the faunal assemblage from the structure in Area E suggests that the inhabitants obtained the bulk of their dietary protein from domestic stock, mostly hogs, and marine mammals such as seals. Subsistence-based big game hunting does not appear to have played an important role in meat procurement. Examining the faunal remains from four seventeenth-century middens

in Ferryland, Hodgetts (2006) discovered a similar subsistence trend, one that was dictated by the cod fishery. Hogs provided the main source of meat. Being omnivorous animals, they could easily be reared on fish entrails and table scraps. Cattle, sheep and goats were also slaughtered, but in smaller quantities, possibly due to the fact that they require a specialized fodder, the preparation of which would conflict with the summer cod fishery (Hodgetts 2006:135). Seals and caribou were also hunted most likely to provide fresh meat during the winter months (Hodgetts 2006:135). The reliance on hogs and seals by the inhabitants of Area E suggests that they played an active role in an intensive industry and lacked the time to provide the specialized fodder for other animals.

The assemblage contains both cooking and table refuse: the burnt bone and the avian humerus with knife cut marks. Butchery waste, such as cranial and foot bones, is present indicating that animals were also butchered at the site. The basic diet exhibited some variety. In addition to the staple meat stocks, wild fowl and quality lamb (or kid) was also consumed. Potential horse remains were also uncovered within the assemblage. As horse meat was culturally taboo amongst English settlers, I believe that the animal may have died accidentally (Yentsch 1988:150).

The faunal remains also suggest that the site was occupied year-round. During the summer months, the residents most likely dined on codfish, imported food sources and local produce and game. Domestic stock was likely left to fatten on grass and hay at this time. Some time in autumn or at the beginning of the winter, adult pigs, aged at least 1.5 years, appear to have been slaughtered. Aided by the cold weather, some of the hog meat may have been cured to provide a winter food supply. Cattle may have also been butchered at this time. During the winter and

spring, food sources tended to be meagre and the inhabitants relied on seal meat for their protein intake. Young adult seals, older than 5 years, were preferred although pups were also hunted. Fowl and possibly caribou, although not present in any significant quantity, provided year-round sources of fresh meat.

10.10 Conclusion

The faunal remains from Area E indicate that the residents of the structure dined on a varied seasonal diet. Swine and seals provided the majority of their meat requirements, supplemented by cattle, sheep, goat and wild species; the latter of which were present in small quantities suggesting that livestock production had intensified in Ferryland during the eighteenth century. The reliance on swine versus other domestic stock suggests that the residents played an active role in an intensive industry and could not provide the specialized fodder required by the other animals. The presence of seasonally-available resources indicates that the site was also occupied year-round.

Chapter Eleven
Miscellaneous Artifacts

11.1 Introduction

A brief analysis of the miscellaneous artifacts was undertaken to develop a better understanding of the activities carried out by the residents of the structure in Area E. Many of these artifacts were metal, largely ferrous, quite corroded and have undergone chemical treatment. Lead and oxidized copper artifacts in a fair state of preservation, a gun flint and flint spall were also recovered. The identified miscellaneous artifacts are presented according to functional categories such as small arms and ammunition, trade and commerce, and fishery-related equipment.

11.2 Small Arms and Ammunition

A total of six cast pieces of lead shot were recovered from two exterior middens (Events 95 and 98). The most common was bird shot, averaging 5 mm in diameter. The balance consisted of one musket ball measuring 16.5 mm. Three small fragments of lead casting waste were also uncovered suggesting that small arms ammunition was manufactured on the site.

A grey gunspall from a flintlock was also recovered. Produced by the removal of individual flakes, the ventral face has a slightly convex surface and exhibits a positive bulb of percussion (Figure 11.1; Kenmotsu 2000:346). The dorsal side is relatively flat and the heel has been finely retouched. The specimen is burnt indicating that it was used and the greyish colour suggests that this gunflint is of English origin.

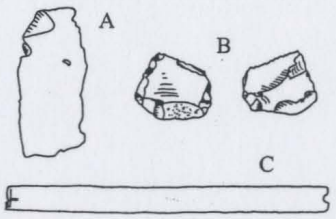


Figure 11.1. Miscellaneous Artifacts from Area E, Ferryland.

Notes:			
	A	Copper fragment	64783
	B	Gunflint	65976
	C	Copper fragment	58862

11.3 Trade and Commerce

A small, cast, lead bale seal used to seal, identify and possibly represent quality control for the contents of packaged goods was excavated. The seal, 31 mm in total length, consists of two circular knobs, each 13 mm in diameter, connected by a narrow band 3 mm in width (Figures 11.2 and 11.3). The seal was attached to the bale or goods by passing each knob through a hole in the parcel and then clamping the seal together. A faint, unidentified relief decoration is visible on each knob. Future identification of this pattern may indicate the manufacturer, country or city of origin of the sealed goods (Stone 1974:281).

11.4 Fishery-Related Equipment

The residents of the structure practised fishing as demonstrated by the presence of three barbed fishing hooks and one fishing weight. All three ferrous fishing hooks are corroded, and two are incomplete. The last appears to have a flattened shank end indicating that the line was attached by winding string around the flattened shank and the line. The ferrous fishing weight, also corroded, is conical in shape, measures 6 cm in length and has a maximum diameter 2 cm. The weight was most likely used as a net sinker and tied to the edge of a cast net or to the bottom of a bait net used to catch bait fish such as caplin and herring (Mills 2000:98; Poynter 1963:60).

11.5 Hardware and Tools

The assemblage also included a ferrous shovel blade. Belonging to a pointed spade with a wooden handle about 37 mm in diameter, the blade is fairly complete and measures 29 mm in length, 25 mm in width and 5 mm in thickness.

Figure 11.2. Lead Bale Seal from Area E, Catalogue Number 61591. Photo by Ron Hyde.

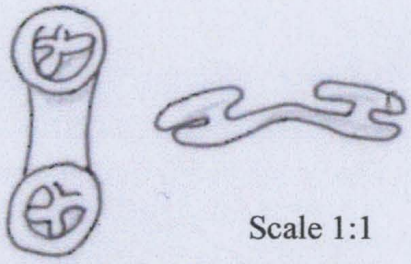


Figure 11.3. Lead Bale Seal from Area E, Catalogue Number 61591.

A multitude of corroded, wrought ferrous nails were uncovered at the site. The majority of the identified heads were rosehead and at least one was clinched and had wood adhering to it. Rosehead nails were general purpose nails used for framing, lathing and most concealed work. Sometimes their head was used for a decorative effect.

11.6 Clothing-Related Artifacts

The Area E assemblage contains one convex copper crown from a button measuring 20 mm in diameter. The back and shank are missing suggesting that the crown and back were cast separately and perhaps joined by brazing. Mainly imported into the colonies until the late eighteenth century, buttons greater than 18 mm in diameter were often sewn onto coats (White 2005). During the eighteenth century, buttons were almost exclusively worn by men. The example excavated from Area E may have, therefore, belonged to a coat worn by either a male occupant or guest of the structure.

11.7 Miscellaneous

Sundry fragments of oxidized copper affiliated with the eighteenth-century structure were uncovered. The first is a rectangular strip, slightly bent, measuring at least 150 mm in length, 12 mm in width and 1 mm in thickness (Figure 11.1). One end of this copper strapping has been punctured and the other end possess linear markings in the shape of a "T". It is unknown whether or not these markings are intentional or the result of use. The second copper artifact is a small scrap sheet 74 mm long, 32 mm wide and 1.5 mm thick (Figure 11.1). One side is clearly hammered suggesting this piece was reused, perhaps as a patch for a boat.

A large flat sheet of iron was uncovered on the surface of Event 488b. Measuring roughly 150 cm in length, 15 cm in width and 25 mm in thickness, this sheet contained at least three small holes along one edge, each measuring about 3 mm in diameter. As this piece is highly corroded, more holes may actually exist beneath the corrosion. This ferrous sheet may have been related to the construction or maintenance of the house or other features such as a boat.

Three pieces of unworked flint were excavated. Used as ballast by the fishing ships, two pieces are honey coloured suggesting they may have come aboard French fishing ships, whereas the last is greyish brown suggesting it arrived on an English fishing ship.

No pewter artifacts are within the Area E assemblage. Although pewter was procured by all classes of society at this time -in Maryland during the early eighteenth century over half of 5 per cent of the least wealthy owned pewter- its absence in the collection is not surprising considering that it is a lead-and-tin-based alloy and when broken or cracked is easily melted down and refashioned rather than discarded (Martin 1989:7).

11.8 Conclusion

The several miscellaneous artifacts recovered from Area E were presented according to the following functional categories: small arms and ammunition, trade and commerce, fishery-related equipment, hardware and tools, clothing-related artifacts and miscellaneous. Analysis of these findings indicates the use of small arms and suggests the on-site production of small-scale arms ammunition. The owners of the structure practised two different methods of fishing and possibly

performed routine maintenance of their house or other features such as boats. The presence of a copper button also suggests the existence of at least one male occupant or guest.

Chapter Twelve
Additional Eighteenth-Century Artifacts

12.1 Introduction

Following the abandonment of the dwelling, Area E was reclaimed, regraded and employed as farmers' fields. Archaeological investigations of the upper disturbed layers revealed several additional artifacts that appear to date to the eighteenth century. As these items may have been affiliated with the house, and thus used by the occupants, the following chapter will briefly describe the most notable finds.

12.2 Ceramics

The ceramics are presented according to waretype.

12.2.1 Bristol-Staffordshire Combed Slipware

A Bristol-Staffordshire Combed Slipware fragment from a bulbous cup was recovered from Event 66 (Figure 12.1). The body is buff in colour with tiny black inclusions. The rim is everted with a diameter of 0.13m.

12.2.2 Bristol-Staffordshire Brown Mottled Ware

A Bristol Staffordshire Brown Mottled Ware straight-sided mug base was unearthed in Event 66 (Figure 12.1). The base, diameter 0.11m, has a knobbed foot.

12.2.3 Westerwald

A polychrome Westerwald jug body fragment was found in Event 90. The exterior is cobalt blue and decorated with numerous incised scrolls and an applied glazed purple rosette (Figure 12.1).

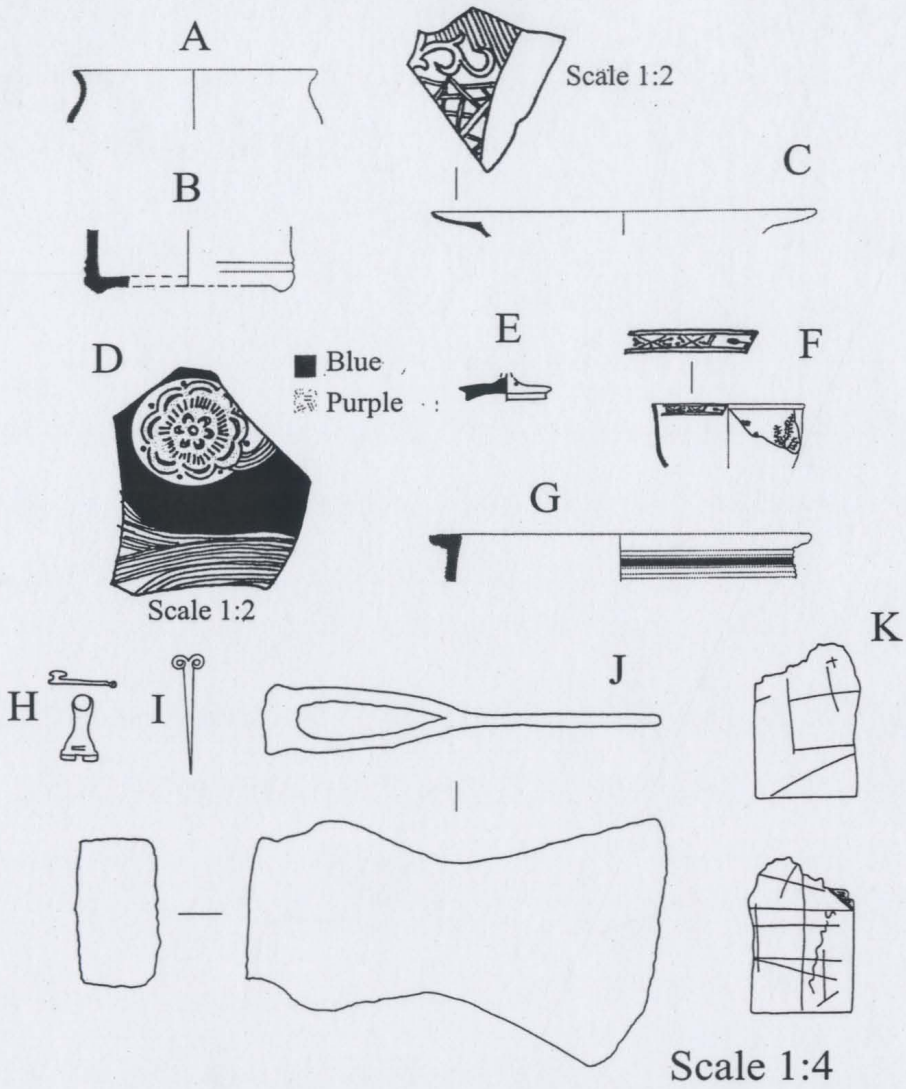


Figure 12.1. Miscellaneous Artifacts from Upper Strata, Area E, Ferryland.

Notes.

A	Bristol-Staffordshire slipware cup	50223
B	Bristol-Staffordshire brown mottled ware mug	59144, 57557, 69470
C	English white salt-glaze plate	54948
D	Westerwald jug	392634
E	English white salt-glaze teapot lid	63490
F	Chinese Export porcelain tea bowl	44994
G	Westerwald chamberpot	47212
H	Copper shoe buckle stud	64784
I	Unidentified copper artifact	381891
J	Axe blade	64648
K	Slate	65631

A rim fragment from a buff-coloured Westerwald chamber pot was discovered in Event 66. The rim is everted with a diameter of 18 cm (Figure 12.1). At least four cordons appear beneath the rim, one enhanced by blue cobalt staining.

12.2.4 English White Salt-glaze

An English White salt-glaze teapot lid was recovered from Event 52 (Figure 12.1). The fabric is beige in colour and has tiny black inclusions. The footring, diameter 4 cm, slants outwards. A moulding scar is present on the underside measuring about 1 cm in length. A tiny hole, to allow steam to escape, was pierced adjacent to the handle.

An English White salt-glaze plate rim was also uncovered in Event 52. The rim, diameter 20 cm, exhibits a moulded dot, diaper and basket pattern (Figure 12.1). The fabric is beige with tiny black inclusions.

12.2.5 English Brown Salt-glaze

An English Brown salt-glazed mug body sherd exhibiting an "AR" relief mark was found in Event 66. This straight-sided mug, body diameter 10 cm, has a grey core and is coated with a shiny metallic brown glaze. During the late seventeenth century, tankards of pint or quart capacities were frequently stamped below the rim with the cipher of the ruling monarch to indicate that the vessels were manufactured according to Crown-prescribed standards of capacity: an impressed crowned WR for William III (1694-1702), AR for Queen Anne (1702-1714) and GR for either George I (1714-1727), George II (1727-1760) or George III (1760-1820) (Noël Hume 1970a:113).

12.2.6 British Delftware

A fragment of a British delftware bowl or teacup was recovered from Event 66. The body is yellowish buff in colour and is coated with a white tin-glaze. The exterior exhibits a painted cobalt blue floral pattern, and two tiny blue dots present on the interior suggest that a decorative pattern also existed on the inside.

12.2.7 Chinese Export Porcelain

A polychrome Chinese Export porcelain saucer fragment was recovered from either Event 51 or 52. The interior of the saucer exhibits an under-glazed, hand-painted, cobalt floral design with pink and ochre over-glazed accents. The footring is straight and measures 5 cm in diameter.

Two tea bowl fragments were unearthed in Event 66. Both exhibited under-glazed, hand-painted cobalt patterns. The first is a body fragment with a floral pattern on the exterior and a single line on the interior. The second tea bowl is a rim sherd with a geometric border on the interior, and a floral and dendritic design on the interior (Figure 12.1). The rim is straight and has a diameter of 8 cm.

12.2.8 Montelupe/Iberian

A Montelupe olive jar rim was excavated from Event 66. Micaceous orange in fabric with an interior brown lead glaze, this rim measures 22 cm in length, 13 cm in width and 18 cm in thickness. The rim appears to be a later style identified with a simplified Type C rounded rim (refer to no. 121 Pryor and Blockley 1978:83).

12.3 Glass

Sometime during the seventeenth century, glass wine bottles began to be marked with a seal. Consisting of a molten glob placed on the shoulder of the bottle, the seal was impressed with a name, initials, date and/or crest (Wicks 1998:99). It appears that gentlemen were first to adopt this practise perhaps to assert ownership as well as to proclaim to the public that they literate and, therefore, powerful (Wicks 1998:99; Pope 1992:282-284). Soon after, taverns and colleges also began to mark their bottles. Tavern keepers most likely began to seal their bottles to protect them from theft when they were sent to the vintners for filling (Banks 1997:1). Bottle seals also served as a form of advertising for the tavern (Wicks 1998:100). Three bottle seals were recovered from Area E.

12.3.1 Wm. Smith 172?

Recovered from Event 52, this seal may have belonged to William Smith, a successful planter operating out of Trinity, Newfoundland in the first half of the eighteenth century (Figure 12.2; Wicks 1998:103). Smith employed 27 servants and owned three boats. He died around 1754.

12.3.2 Thos Holdfw? in Da? 17?

Excavated from Event 52, this is the seal of Thomas Holdsworth of Darthmouth (Figure 12.2; Wicks 1998:103). The Holdsworth family were venture capitalists in the Newfoundland fishery, and Thomas Holdsworth owned extensive properties on the north side of Ferryland during the first half of the eighteenth century. During the late-nineteenth century, a Mr. Brooking, also called Thomas Holdsworth, managed the Holdsworth firm affairs in Newfoundland (Prowse 2002:228).

Not to scale

Figure 12.2. Bottle Seals from Area E, Ferryland.

Notes:			
	A	Thos Holdfw? in Da? 17?	56294
	B	Wm. Saunders [Ferr]yland	60676
	C	Wm. Smith 172?	47843

Images courtesy of James Tuck.

At least two additional variations of the Thos Holdsworth bottle seals were uncovered in England. One on a bladder onion bottle (ca.1725), and the other on a squat cylindrical bottle bearing the date 1755. (Dumbrell 1983:96).

12.3.3 Wm. Saunders [Ferr]yland

Unearthed in Event 52, this seal possibly belonged to William Saunders, a Ferryland planter who was fishing out of "Peggins room" in 1763 (Figure 12.2; Wicks 1998:106).

12.4 Clay Tobacco Smoking Pipes

Several marked clay tobacco pipes were recovered from the disturbed zones.

12.4.1 PA/IH

A pipe with a relief mark stamped on its heel and rouletting around its rim was unearthed in Event 66 (Figure 12.3). The bowl form dates between 1680 and 1720, and along with the mark is attributed to Barnstaple, Devon. The pipe was possibly manufactured by John Horwood, free in 1713 (Gaulton 1999:50).

12.4.2 Two Hearts

A pipe with two relief hearts stamped on either side of its heel and stem bore size of 5/64 inches was uncovered in Event 66. The source is unknown, but pipes with this mark were also uncovered in eighteenth-century deposits at the forts of Pemaquid (Bradley and Camp 1994:103, 105) and Fort Michilimackinac (Stone 1974:146-147).

Not to scale

Figure 12.3. PA/IH Clay Tobacco Smoking Pipe from Area E, catalogue number 57733. Images courtesy of James Tuck.

12.4.3 TD

One partial specimen with the relief moulded letters *T* and *D* on opposite sides of a flattened heel was recovered from Event 51. The stem bore is 5/64th inches. Pipes bearing the *TD* mark were produced from the mid-eighteenth century onward. If this pipe is indeed from the eighteenth century, possible makers include Thomas Dormer of London and Thomas Dennis of Bristol (Walker 1966).

12.4.4 SIDNEY

A pipe stem with a stamped "RVB SIDNEY" mark and bore diameter of 6/64th inches was recovered from Event 66. This mark is identified with the Southhampton pipemaker Reuben Sydney, 1687-1748 (Gaulton 1999:44). Additional specimens were uncovered in late seventeenth- to early eighteenth-century contexts.

12.5 Metals

12.5.1 Axe Blade

A corroded iron felling axe head was recovered from Event 51 (Figure 12.1). The blade flares slightly and is 21 cm in length, 8 cm in base height and 4 mm in breadth.

12.5.2 Shoe Buckles

A partial square copper shoe buckle, a ferrous tyne and a copper stud chape were recovered from Event 66. The buckle has a slightly convex frame, which would have measured roughly 6 cm in length and 3.2 cm in width. Square shoe buckles were common in the eighteenth century, and by the 1720s shoe buckles were used by both men and women of all social classes, except the very

poor, who continued to use shoe ties (Whitehead 1996:96; White 2005; Sullivan 1986:76). The tyne, also slightly curved and 22 mm long, 5.5 mm wide and 2.7 mm thick, may belong to the copper buckle. The solid cast copper stud chape is, however, flat and 3.5 cm in length indicating that it does not correspond to the abovementioned buckle (Figure 12.1). Stud chapes were secured to shoes by pushing the stud through a buttonhole slit in the under-latchet and thus only suitable for small buckle frames (Whitehead 1996:97). As shoe buckles increased in size ca.1720, stud chapes gradually fell out of fashion around this time.

12.5.3 Sleeve Link

Sleeve links functioned like modern-day cufflinks, but during the eighteenth century were mostly worn by men of means (Sullivan 1986:77). Sleeve links were made of silver, gilt brass and faceted glass. A slightly worn, clear, faceted glass inset secured to a metal backing with a pearl border was recovered from Event 66. The button measures 14 mm in diameter and is 8.5 mm in thickness and originally belonged to a sleeve link.

12.5.4 Key

A large ferrous key with a solid shank and an "L" shaped ward was recovered from Event 51. Measuring 76 mm in length and 31 mm in height, with a shank diameter of 4mm, this key was most likely used for a door lock.

12.5.5 Weight

A rolled lead piece, most likely employed as a small weight for a fishing net, was uncovered in Event 52. The sheet of lead measures roughly 2 mm in thickness and was rolled to create a

weight with an outer diameter of 14 mm and an interior hole measuring 5 mm in diameter. The total length of the piece is 35 mm.

12.5.6 Unidentified

An interesting unidentified, wrought copper artifact was recovered from Event 90. It was essentially formed by a copper sheet rolled into a cone, with its wider end cut into two lengthwise and each end curled outward (Figure 12.1). The tapered shank, about 61 mm long, is hollow with a maximum outer diameter of 56 mm. Although this piece has yet to be identified, perhaps it was an early pin for a hat or some such item, and the hollow shank was used to hold a feather.

12.6 Coinage

During the early modern period, the Newfoundland economy was largely dependent upon the migratory fishery. Every summer, fishing ships arrived at the island to catch and process cod for foreign markets. This industry was predominantly a cashless industry and relied heavily upon bills of exchange and payment by goods, usually fish, or shares (Berry 2002:3). Small cash payments were, however, often used to pay the monthly wages of men on sack ships or to supplement shares on voyages exceeding six months in duration (Berry 2002:5). On the shores of Newfoundland, fishers often used their coinage to purchase commodities such as tobacco and alcohol. For example, in 1708, Captain Robert Harlin paid £16.7.0 cash for a hogshead of rum (Pickering 1708). Despite the infusion of coinage via fishers, coins regularly left the colonies to pay for imported manufactured goods from Europe and the supply of coinage in colonial Canada remained low (McCullough 1984:12.1).

12.6.1 William III halfpenny

One William III halfpenny was recovered from Event 66. It is 28 mm in diameter and 8.60g in weight (Berry 2002:37). The obverse legend reads "GVLIELMVS TER..." and a faint draped bust of William is visible. The reverse is completely worn smooth. Issued between 1695 and 1701, the halfpenny of William III is the most common type of coinage found at Ferryland (Berry 2002:33).

12.6.2 English Halfpenny

One badly worn coin found in Event 66 is 28 mm in diameter and 6.86g in weight. The partial obverse legend (GE)OR(G)IVS (-) REX suggests that it is an eighteenth-century British halfpenny (Berry 2002:41).

12.6.3 Token

A lead piece with a maximum diameter of 31 mm and roughly 3 mm thick was uncovered in Event 66. This piece may be a merchant's token for it is simple in design, only a scratched "A" appears on the obverse, and the sides are slightly pressed together (see example 84 in Berry 2002:63). Although not legal tender, tokens were used during the early modern period to fulfill the need created by the shortage of British coinage in the colonies.

12.7 Beads

Two beads were unearthed in the disturbed upper strata. The first is a crudely made semi-translucent dark amber bead recovered from Event 90. It exhibits two offset rows of four facets encircling either end of the bead that join in the centre to form an apex. The bead is about 8 mm

in length with a maximum exterior diameter of 11 mm and a central bore diameter of 4 mm. Similar examples identified as necklace beads were excavated at Fort Michilimackinac (refer to example R in Stone 1974:104-105). The second bead is a tiny, white, opaque drawn seed bead found in Event 66. It has an exterior diameter of 2 mm, and an interior hole diameter of about 0.4 mm.

12.8 Miscellaneous

A grey writing slate fragment was recovered from Event 66 (Figure 12.1). Tiny linear scratched lines are present on either side, one side exhibits what appears to be an "S". The slate is 82 mm in length, 55 mm in width, and 4 mm in thickness.

12.9 Conclusion

Several artifacts possibly dating to the eighteenth century were recovered from the upper disturbed strata. As these items may have been associated with the house, and therefore, used by its residents, this chapter briefly described the most notable archaeological specimens. Artifacts were presented according to the following categories: ceramics, glass, clay tobacco smoking pipes, metals, coinage, beads and miscellaneous.

Chapter Thirteen
Discussion

13.1 Introduction

Little is known about Ferryland during the eighteenth century and the structure in Area E helps to shed light on colonial life in a rural setting at that time. Analysis of archaeological evidence from the site and historic documentation can provide the opportunity to uncover aspects of the domestic and social environment. The following chapter will use the artifact assemblage to determine the function of the structure in Area E and to draw inferences about consumption habits and eighteenth-century social milieu.

13.2 Artifact Assemblage

The artifacts in the Area E collection are of a domestic nature. The presence of ceramics related to food and drink storage, preparation and consumption, lighting features, medicinal vials alluding to health ailments, and fish hooks and lead shot indicative of subsistence hunting might lead one to conclude that the structure was indeed a domestic home. Closer examination of the assemblage, however, reveals a high concentration of artifacts associated with beverage consumption such as mugs, punch bowls and wine bottles, all indicating that much drinking was done in this house. A key question that arises is whether or not this is a normal consumption pattern for a domestic family assemblage during the early modern period.

Using the functional division of ceramics proposed by Beaudry et al. (1988) and Yentsch (1991) with a few modifications, ceramic assemblages from various domestic sites were grouped accordingly and compared with the Area E collection. Table 13.1 illustrates that domestic assemblages were versatile: some favoured food consumption wares, while others consisted of a

Table 13.1. Functional Division of Ceramics from Area E, Ferryland and Selected Domestic Sites.

	Food Processing	Food and Drink	Beverage	Food	Health/Hygiene	Other	Unidentifie	Total
John Powell Plantation Kent County, Delaware 1691-ca.1721	10	7	25	11	1	0	0	54
	19%	13%	46%	20%	2%	0%	0%	100%
Joseph Howland Kingston, Massachusetts 1694-1750	22	17	52	45	0	0	0	136
	15%	13%	38%	33%	0%	0%	0%	100%
John Hicks Site St. Mary's City, Maryland 1723-1743	38	30	120	79	9	1	0	277
	14%	11%	43%	29%	3%	0%	0%	100%
Jean-Pierre Roma House Brudnell Point, P.E.I. 1732-1745	11	10	10	31	1	6	5	74
	15%	14%	14%	42%	1%	8%	7%	101%
Domestic Pit Group Staffordshire, England ca.1775	7	3	26	67	12	2	2	119
	5%	3%	22%	56%	10%	2%	2%	100%
Area E Structure Ferryland, Newfoundland ca.1697-1765	5	6	26	11	0	1	4	53
	9%	11%	49%	21%	0%	2%	8%	100%

Notes: The top row of numbers in each row represents the minimum number of vessels, and the bottom row of numbers is the percentage to the total assemblage.

Discrepancies in total percentages due to rounding off.

Sources: Area D Dwelling - Crompton 2000, 2001
John Powell Plantation - DelDOT Archaeologist 2005
Joseph Howland - Bragdon 1988
John Hicks Site - Wheeler Stone et al. 1974
Jean-Pierre Roma House - Blanchette 1979
Domestic Pit Group - Kershaw 1987

higher proportion of beverage consumption related artifacts, a pattern similar to early modern period taverns. During the seventeenth century, it was not uncommon for planters in Newfoundland to operate taverns from their own homes (Crompton 2000:25). Known as tippling houses, these dwellings served as both a residence and as centres for community life offering alcohol and tobacco, and in some instances meals and accommodation, to locals, travellers and seamen. Similarities between the Area E assemblage and those produced by colonial taverns suggests that the Area E dwelling did indeed also function as a tavern (Table 13.2).

13.3 Taverns During the Early Modern Period

During the early modern period taverns played an integral role as centres for community activities. Intertwined in everyday life, the tavern constituted the only large secular public building in which people could meet both formally and informally to exchange information. Offering alcoholic beverages, food, and occasionally overnight accommodations, the tavern functioned as a place for business activities, political elections, sport gatherings, educational performances and jovial banter. The tavern also served as a recruitment post; the British Army was known to draw its personnel from the heavily drinking clientele (Kopperman 1996:460). Entertainment including dances, assemblies, and games such as billiards, backgammon and cards were sometimes offered (Rice 1983:107, 111; Riley 1943:15).

From the sixteenth century, three types of public victualling establishments were statuted in England: the alehouse, the inn and the tavern (Clark 1983:5). Alehouses tended to be smaller establishments that offered ale, beer, or spirits alongside basic fare and accommodations to the lower classes. Inns were larger establishments that served wine, ale and beer and provided meals

Table 13.2. Functional Division of Ceramics from Area E, Ferryland and Selected Tavern Sites.

	Food Processing	Food and Drink Storage	Beverage Consumption	Food Consumption	Health/Hygien	Other	Unidentifie	Total
Wellfleet Tavern Great Island, Massachusetts ca.1690-1740	37 16%	30 13%	96 41%	73 31%	0 0%	0 0%	0 0%	236 101%
Cosby Tavern Grassy Island, Nova Scotia 1730s-1740s	5 12%	3 7%	17 41%	14 34%	2 5%	0 0%	0 0%	41 99%
Nags Head Inn Somerset, England ca.1700-1760	17 19%	7 9%	21 23%	33 37%	9 10%	0 0%	3 3%	90 101%
King's Arms Assemblage Middlesex, England ca.1785-1800	22 10%	3 1%	80 37%	75 35%	8 4%	17 8%	9 4%	214 99%
Area E Structure Ferryland, Newfoundland ca.1697-1765	5 9%	6 11%	26 49%	11 21%	0 0%	1 2%	4 8%	53 100%

Notes: The top row of numbers in each row represents the minimum number of vessels, and the bottom row of numbers is the percentage to the total assemblage.

Discrepancies in total percentages due to rounding off.

Sources: Wellfleet Tavern - Bragdon 1988, Erkholm and Deetz 1971
Cosby Tavern - Crowe 1986, Ferguson 1980
Nags Head Inn - Pearson 1979
King's Arms Assemblage - Pearce 2000

and lodging to travellers, and taverns sold wine to a more prosperous clientele, but did not offer ample accommodations (Clark 1983:5; Burke 1943). In colonial America, no legal distinction appears to have been made between drinking establishments selling alcohol. The tavern was synonymously known as an ordinary, punch house, victualling house, inn and public house (Rice 1983:19, 20). Small taverns known as grog shops, slop shops and tippling houses were clustered around city docks and catered to a transient population of fishers and day labourers (Rice 1983:33). Fishing crews frequently furnished themselves with distilled alcohol for each haul; in New England, at least a quart per day of beer, cider and brandy for each crew member was provided (Vickers 1985:113). This demand for drink in port cities spurred on local victualling establishments. In Ferryland, the number of enumerated taverns ranged from as few as 1 to as many as 35 in any given year, but averaged 3 (Censes). This tally does not include the unlicenced private homes that also functioned as tippling houses.

Non-alcoholic beverages such as coffee, chocolate and tea could also be purchased at taverns. As coffee gained popularity during the seventeenth century, specialized taverns or coffee houses began to be established. By 1688 London had roughly 100 coffee shops (Wood 1997:457). Across the Atlantic, the first coffee house in the American colonies was opened in Boston in 1678, and in Halifax, the first licence was granted to William Piggott in 1751 (Rice 1983:38; Mullane 1933:1). No coffee houses are known in the Ferryland district during the eighteenth century.

13.3.1 Laws and Licensing

In England, official licensing of drinking establishments was attempted in 1495 and reenacted in

1552 (Clark 1983:48, 169). These early measures to control taverns were generally uncoordinated and, therefore, ineffective that severe criticism against taverns erupted in the late sixteenth century (Clark 1983:145, 166). Critics argued that taverns posed a threat to the moral and social fabric of Britain: grown children and servants spent their time and money at these establishments away from their parental or master's control; taverns separated husbands and wives; taverns were centres of disorder and drunkenness; taverns served as places for casual sexual liaisons; taverns encouraged drink in all sorts of company; and taverns impoverished the lower class clientele (Clark 1983:147, 167). The government responded in part with the Acts of 1603 and 1606, which set the prices of ale and beer, and forbade drunkenness, brewers from selling to unlicenced tipplers and "tippling", drinking for more than one hour in one's own township (Wrightson 1981:11; Clark 1983:172). These acts were further extended in a series of other statutes which introduced higher licencing fees, official standards for taverns, and forbade tippling, dancing and singing on fast days or Sundays (Clark 1983:180-181; Wrightson 1981:12).

In seventeenth-century Newfoundland, the hospitality industry was second only to the fishery, and many planters' homes functioned as tippling houses, providing seamen with alcohol and tobacco (Pope 1989a, 2004). David Kirke, prominent planter in Ferryland from 1638 to 1651, kept "a common Taverne in his owne house" (Cruse 1667). To restrict the market in alcohol and secure additional profit, Kirke introduced tavern licences to Ferryland (Pope 1989a:85; 2004:277). During the eighteenth century, Admirals, and later local magistrates, were responsible for the judicial licencing of public houses and a portion of the funds went to the state (Prowse 2002:287, 356). A tavern licence in St. John's in the 1780s cost 4½ guineas and the funds were split, half for the magistrates and half to the public fund (Prowse 2002:356).

As in England, regulations were passed in the colonies during the seventeenth century to circumscribe the immoral aspects of tavern life, direct the general behaviour of the tavern keeper and their clientele, and regulate prices of alcohol (Rice 1983:25, 28). Although English common law attempted to impose social responsibilities, the lack of central supervision in Newfoundland undermined the campaigns. Additionally, the government of eighteenth-century Newfoundland was largely in the hands of the Royal Navy, a judicial administrator not strongly opposed to drinking and smoking. Servants and seamen reportedly continued to spend their wages on drink obtained through planters or at one of the many taverns, and drunkenness was regularly blamed for a poor work performance (Head 1976:143). In 1712, Governor-in-Chief Trevanion requested that "orders be put up at public houses and other places for suppressing drunkenness, &c." (cited in Prowse 2002:272). In 1787, a notice was issued by the Ferryland magistrate Robert Carter that fishing servants were not to be served liquor "unless it be by and with the Consent of his Master or Mistress in writing" (Keough 2001:212). Like their seventeenth-century counterparts, eighteenth-century campaigns continued to focus on the consumer and tavern keeper, and regulate time spent in the public house, rather than on the reduction of the supply of alcohol into Newfoundland. Taverns were also criticized as promoting irreligion and in 1749, laws in Newfoundland decreed that "the Lord's Day be strictly and duly observed, and [that] the Inhabitants who keep any sort of publick Houses for Entertainment, do forbear on that Day, to utter or Sell any Sort of Strong Liquor or Tobacco (Anonymous 1749).

13.3.2 Tavern keepers and Clientele

During the early modern period, the tavern was a male-dominated institution. Women and children worked in taverns, but were rarely patrons. Any female customer wishing to visit a

tavern was generally regulated by social conventions to arrive with a spouse or as a group (Clark 1983:225). Some taverns also restricted access to select males. In New England, African-Americans, apprentices, servants and seamen were not permitted in taverns without permission of their owners, masters or captains (Rice 1983:26).

Unlike in rural localities, urban set taverns were rarely operated out of the proprietor's home, and those tavern keepers that lived and worked in the establishment were rarely the owner (Rice 1983:31). Tavern keeping was generally a middling occupation for it provided a steady income and modest opportunities (Rice 1983:31). Alehouse keeping in England, however, was not as prosperous as inn or tavern keeping and licenced alehouse keepers were also reportedly employed as tailors, weavers, wheelwrights, husbandmen, shoe makers, or dyers (Thirsk 1978:172). Being one of the few business opportunities for females at the time, several widows were tavern keepers (Rice 1983:50). In 1794, Mrs, Tree, "Widdow of Captain Tree" kept "a kind of House of Entertainment called the London Inn" in Ferryland (Murray 1968:110). Mrs. Tree was "in a very comfortable situation" and her tavern was "a large and roomy House [with] Genteel Furniture" (Murray 1968:110).

13.4 Rural versus Urban Taverns

The distinction between the three types of contemporary English taverns - the alehouse, inn and tavern- does not appear to have applied to colonial America. The colonial tavern by definition was a house that afforded alcoholic drink, food and usually overnight accommodations for a price (Rice 1983:19). Some taverns also provided horse or cattle pens for those travelling with their livestock.

Rockman and Rothschild (1984) studied and compared artifact assemblages from four seventeenth- and eighteenth-century colonial taverns and determined that their setting dictated the services offered. Urban taverns provided different social functions from their rural counterparts and thus generated different artifact assemblages. Drawing in particular affinity groups, city taverns were specialized meeting centres catering to socializing and drinking. Business activities such as auctions and political meetings were quite common. Rural taverns, on the other hand, offered general services and predominantly provided meals and overnight accommodation for a fee. Rural tavern artifact assemblages had a higher frequency of artifacts related to food preparation, whereas, urban taverns, due to their specialized nature in socializing, yielded assemblages with a higher number of smoking pipe, glass and wine bottle fragments (Rockman and Rothschild 1984:114). The rural nature of the Ferryland tavern becomes clearer when it is compared to other colonial taverns (Figure 13.1). Lovelace Tavern, representing the upper end of an urban tavern with a high frequency of pipe-related artifacts, but few ceramics, was located in Lower Manhattan, New York City and also temporarily served as a city hall (Rockman and Rothschild 1984:115). Wellfleet Tavern and Rumney's Tavern stand at the other end of the continuum with a high number of ceramic vessels, but few pipes. Situated on Great Island in Cape Cod Bay, Massachusetts, Wellfleet Tavern was set in an isolated rural setting and may have offered meals and overnight lodging to its clientele: whalers passing the time while waiting for their kill (Rockman and Rothschild 1084:115; Ekholm and Deetz 1971:52). Rumney's Tavern was located in London Town, Maryland, a rural tobacco town with a ferry crossing that served local merchants, planters and travellers waiting for ships sailing down the South River (Kerns-Nocerito 2004:241-242). Between the extremes are John Earthy's Tavern located in the small fishing town of Pemaquid, and the tavern in Jamestown, possibly the Woodhouse Inn, situated in

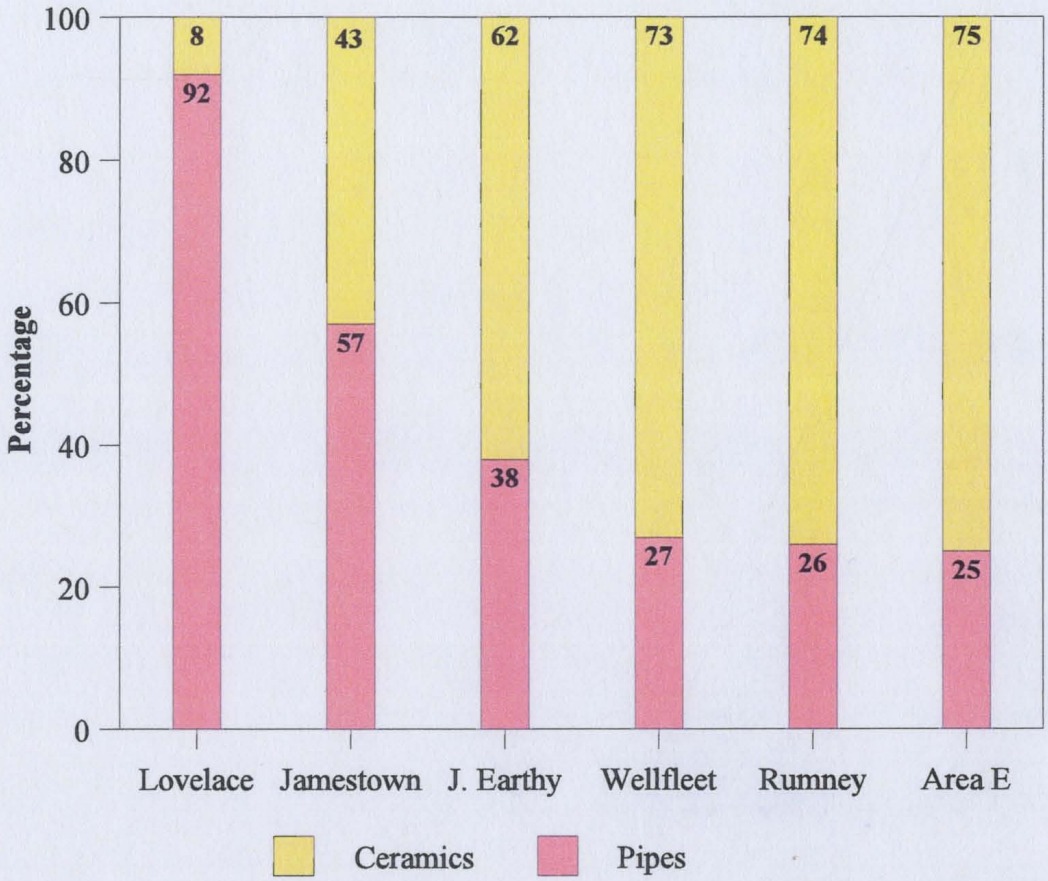


Figure 13.1. Proportions of Smoking Pipes and Ceramics for Area E, Ferryland and Select Tavern Sites.

Notes: Glass drinking fragments were not used in the artifact comparison as drinking overlaps with both eating and socializing activities (Rockman and Rothschild 1984:117). As well, the percentages of drinking and bottle glass varied greatly site from site, possibly a result of fragility and not use.

Sources: Lovelace, Jamestown, J.Earthy and Wellfleet - Rockman and Rothschild 1984
Rumney - Kerns, Nocerito, Michelle

an early Virginia urban setting (Rockman and Rothschild 1984:116). Figure 13.1 illustrates that the tavern in Area E, situated in a rural seaport during the eighteenth century, has a similar pipe-to-ceramic ratio as Wellfleet Tavern and Rumney's Tavern, both also situated in relatively isolated settings. The relatively high number of ceramics suggests that the tavern did fulfill the role of a "rural" tavern and offered more general services including meals, rather than acting as a specialized meeting place. The higher proportion of ceramics particular to food services and beverage consumption supports this (Table 13.2).

13.5 What Services did the Area E Tavern Offer?

13.5.1 Fare

The meals afforded in urban taverns could be quite elaborate, whereas the fare in rural taverns tended to be quite simple and consisted of whatever the tavern keeper had on hand. In English taverns, roast beef was a prominent dish during the eighteenth century; supplemental dishes included goose, swan, venison, kid, hare, boar, sturgeon, carp, pike, and pigeon pie (Burke 1943:12). Sweet dishes consisted of olive pie, saffron cake, gingerbread, custard, citrons and nectarines. In 1794, Aaron Thomas wrote that at the London Inn in Ferryland he "din'd...[on] a Boiled Leg of Pork, Fowls, Lamb, Ducks, Pudings, Green Pease and other Vegitables, served up with Sauces and Gravys" (cited in Murray 1968:110). The faunal assemblage from Area E indicates that pork was the favoured dish, supplemented by beef, mutton, goat and wild fowl - resources all available locally such as those consumed by Thomas.

13.5.2 Alcoholic Beverages

Alcohol, imbibed by men, women and children alike during the early modern period, was

believed to be beneficial for one's health. Liquor was used as a water purifier, wine was regularly employed in hospital treatments, and wine and spirits were used to warm bodies and as remedies for frostbite (Kopperman 1996:461-462). Ale, or hopped beer, was adopted as a nutritional staple for the lower orders (Wrightson 1981:2).

Trade records from the first quarter of the eighteenth century indicate that Ferryland residents imported Canary and Madeira wines, cider, rum, brandy, and large amounts of molasses, possibly for the production of spruce beer (Ruck 1715a and 1715b). Lemons and limes were also imported most likely used in the preparation of punch. Punch, a popular warm drink in colonial America served by the bowl, was easy to concoct by mixing water, brandy or rum, lime or lemon juice, sugar and nutmeg (Kimball 1945:352; Olive and Smith 1985:11). Other mixed alcoholic beverages popular at the time include toddy, distilled liquor mixed with sugar, grog, a mixture of rum and water, and flip, beer and rum with sugar or molasses added (Phil Dunning, personal communication, 2001). On a visit to Ferryland in 1794, Aaron Thomas wrote that Mrs. Keene, the tavern keeper of the London Inn, apologized to Thomas for not having any Gin or Rum to give him (cited in Murray 1968:110). Gin makes its appearance in trade records only at the end of the eighteenth century, despite reaching its height of popularity in England in 1738, at which time, one house in every four in London was reportedly a gin-shop (Anonymous 1789a; Hackwood 1910:128). Gin, however, could have been easily smuggled into Ferryland on American privateer ships and thus available earlier in Ferryland.

The presence of wine bottles, punch bowls and tankards in the Area E assemblage suggests that wine, distilled liquor and weaker ales were consumed in the tavern. Interestingly, ceramic mugs

intended for ales outnumber drinking vessels for wines and spirits (a minimum of 14 mugs, as opposed to 2 wine glasses and 3 punch bowls). Comparison of the artifact assemblage from Area E with two contemporary colonial taverns shows a marked alcohol consumption pattern (Table 13.3). Historic documentation reveals that Freeman's Tavern situated in Annapolis, Maryland was frequented by local workmen and labourers (Kerns-Nocerito 2004:250). If it is assumed that stonewares were intended for the consumption and storage of weaker ales or beer, and delftwares and glass wares were for distilled alcohol, then Freeman's workmen and labourers consumed slightly more weaker ales than spirits. Rumney's tavern yielded a high quantity of vessels for distilled liquor, punch and tea suggesting a wealthier clientele. To a degree, Ferryland tavern patrons appear to have preferred wine and liquor to beer. Tankards of one quart or less capacity were possibly used to drink distilled alcohol as well, and porcelain teawares imply that tea was also served. Although the mass consumption of distilled alcohol was not common during the early modern period, Pope (1989a, 1994) notes that during the seventeenth century, fishers in the North Atlantic consumed unusual quantities of wine and brandy, both considered a middle-class luxury in England. Such an unique consumption pattern was possible at Ferryland because there was little else fishers could spend their high wages on.

13.5.3 Items For Sale

Smoking and chewing tobacco were closely affiliated with the consumption of alcohol for it was believed that tobacco enhanced the effects of beer or ale (Clark 1983:135). Additionally, alcohol and tobacco may have functioned as "little hearths", thought to satisfy physiological needs for warmth in intolerably cold climates (Pope 1989a:89). Smoking pipes and tobacco were commonly sold in taverns, but the lack of even two identical tobacco pipes in the Area E

Table 13.3. Beverage Vessel Comparisons for Area E, Ferryland and Selected Tavern Sites.

	Rumney's Tavern (ca. 1700-1780)			Freeman's Tavern (late 17th- early 18th)			Area E Tavern (ca.1697-1765)		
	MNV	% of MNV	% of MNV	MNV	% of MNV	% of MNV	MNV	% of MNV	% of MNV
English Brown Stoneware	7	6%	8%	34	37%	51%	2	6%	36%
Westerwald Stoneware	2	2%		13	14%		11	30%	
Chinese Porcelain	10	8%		3	3%		2	6%	
Tin-glazed Earthenware	39	32%	92%	24	26%	49%	3	8%	64%
Bottles	44	37%		18	19%		14	39%	
Table Glass	18	15%		1	1%		4	11%	
Total	120	100%	100%	93	100%	100%	36	100%	100%

Notes: Only beverage drinking and storage containers were used in the comparison: bottles, jugs, mugs, cups, punch bowls, bowls, wine glasses and decanters.

For the Area E tavern, table glass includes wine glasses and decanters, and bottles are solely glass wine bottles.

Source: Kerns-Nocerito 2004:252

assemblage suggests that the Area E tavern keeper did not supply their clientele with smoking pipes.

In some instances, tavern keepers were also licenced retailers offering an array of goods in their shop: alcohol and tobacco for home consumption, flour, grain, meat, nails, tools, cloth, leather goods, paper, flints and shot (Thorp 1991:391). Inventories from the Sun Tavern in Boston for 1728 recorded sales of porcelain bowls, dishes, cups, saucers and teapots as well (Mudge 1986:121). The Area E artifact assemblage reflects the diversity of goods available to the Newfoundland population during the eighteenth century. A majority of the fashionable goods such as ceramic wares, glass items and clay tobacco smoking pipes was supplied by England; provisions for the fishery were acquired from Ireland. The presence of English coarseware, popular stonewares, and delftware demonstrates participation in the British economy, access to a disposable income and knowledge of tastes and fashions of the day. The lack of identical items including smoking pipes and tableware sets in the Area E assemblage, however, suggests that the tavern did not function as a retail shop. Rather, the tavern keeper imported small lots of goods for personal use and niceties for his tavern patrons; patrons which possibly included locals, seamen, dieters, and ship passengers in need of food and drink.

13.6 Conclusion

Integral to English settlements, taverns were popular community centres for patrons to drink, smoke, socialize and exchange information amongst fellow company. Severe criticism of the tavern and its threat to the moral and social fabric of society arose during the late sixteenth century; after which, attempts were made to regulate tavern behaviour, prevent drunkenness, and

limit the number of drinking establishments. The lack of a centralized local government in Newfoundland undermined the campaigns.

In colonial America, the setting of the tavern often dictated the services provided: urban taverns specialized in socializing whereas rural taverns afforded meals and overnight accommodation. In Newfoundland, it was not uncommon for planters' homes to be converted into tippling houses offering food and drink to the transient maritime community. The structure in Area E served as both a domestic residence and a tavern catering to the migratory seamen and local population. As a rural tavern, it provided alcohol and meals of local livestock and game to its clientele. The tavern did not function as a retail shop for other goods. Distilled liquor was the preferred drink of the clientele. Although a middle class luxury in England, distilled alcohol was commonly consumed by well paid fishers in the North Atlantic. Tea and punch were served in delft and porcelain wares indicating that the tavern keeper not only invested in middle-class novelties for tavern patrons, but was knowledgeable of the latest fashions.

Chapter Fourteen
Conclusion

14.1 Conclusion

Excavations in Area E, Ferryland revealed the remains of an eighteenth-century earthfast timber-framed structure with a stone gable-ended chimney. The structure measured roughly 4.6 m by 10.8 m (15' by 35') and comprised a two-roomed hall and parlour layout. In later years, the building was renovated and extended: a new floor was laid in the parlour and a linhey was added to the south. Both the parlour and linhey had earthen floors and served as storage rooms. The hall appears to have had a wooden floor. The formal entryway stood along the north wall of the house.

The ceramic assemblage together with the historical record date the site between ca.1697 and 1765. This is supported by the independent dates of the glass bottles of 1698 to the 1760s, and the clay tobacco pipes of 1650 to 1760.

The artifact assemblage is mostly of a domestic nature and includes ceramics related to food and drink storage, preparation and consumption, medicinal bottles and lighting features. Closer examination of the ceramic assemblage reveals a high proportion of vessels associated with beverage consumption. Comparison with other contemporaneous dwelling and tavern assemblages illustrates similarities between the Area E ceramic assemblage and those produced by colonial taverns. The Area E building, therefore, served as both a residence and tavern. The glass assemblage consists almost entirely of bottles and glasses for the storage, serving, and consumption of alcoholic beverages. The range of glass forms recovered is in keeping with the function of the site as a tavern. Only a small quantity of smoking pipes was recovered from the

site.

The animal remains along with the ceramic and glass items provide a snapshot of tavern fare and drink in eighteenth-century Newfoundland. The residents fished and hunted themselves for year-round subsistence, as indicated by the presence of fish hooks, a net sinker, lead shot and specific faunal bone. In the public hall, tavern guests were fed pork, seal, beef, mutton and local fowl on Staffordshire plates, and washed down their meals with wine, spirits, ale or beer in Westerwald and Staffordshire stoneware mugs. Punch was consumed from Agateware and delftware punch bowls; tea was drank from porcelain teacups. Given the rural setting, overnight accommodations may have been provided to travelling clientele.

Tavern keepers customarily supplied their guests with tobacco and disposable smoking pipes. The small quantity of clay tobacco pipes recovered and the lack of identical pieces implies that the Area E tavern keeper provided neither tobacco nor smoking paraphernalia to his clientele. Furthermore, the lack of any similar items in the artifact collection illustrates that the tavern was not a retail shop selling alternate provisions such as leather goods and ceramic wares, as was customary in rural colonial America. The artifact collection does, however, illustrate that fashionable goods were reaching the mass consumer market in Newfoundland. Aware of British tastes and able to afford the new items of the day, the tavern keeper invested in middle-class niceties to serve his customers food and drink: English white salt-glazed stoneware plates, glass decanters, porcelain teacups and a delftware punch bowl. As well, the presence of plates and individual drinking containers such as mugs, teacups, and bowls of less than a pint in capacity illustrate that the new ideology of individualism was gradually adopted in Newfoundland during

the eighteenth century; meals and drink were no longer shared.

An assortment of alcoholic beverages were dispensed at the Area E tavern, but the customers favoured more expensive imported wines and spirits to ales and beer. Such an affluent consumption pattern was possible in Newfoundland as fishers had sizable cash incomes and little else to spend their high wages on. A serving of exotic wine such as Madeira or Canary may have ended a busy day's work and delighted a newly refined palate.

Over half of the artifact collection is of English manufacture trucked in on British migratory ships and American trading vessels. Historic documentation reveals that at the start of the eighteenth century, the southern shore of the Avalon was occupied almost exclusively by vessels from the North Devon ports of Bideford and Barnstaple. British ceramic waretypes recovered reflect trade links with North Devon, but also Plymouth, during the early eighteenth century. The ceramic assemblage also illustrates a shift to the ports of Bristol and/or Liverpool following the increase in distribution and popularity of Bristol-Staffordshire wares around 1720. The wine bottle and smoking pipe assemblage both underline the trade connection with Bristol as well.

The reason for the abandonment of the house is unclear, although some suggestions can be put forward. Six years after the Seven Years' War began in Europe, the fighting spread to Newfoundland and French troops were sent to the island to eradicate all English settlement and impair the British fishery. Ferryland came under French attack in 1762, but the local inhabitants and British fishing crews successfully defended the harbour. From fear of another French attack, the residents in Area E may have decided to pack up their things and leave. Their departure,

however, may not have been due to a concern for safety, but rather a result of economic downfall. During the Seven Years' War, the number of fishing ships venturing to Ferryland significantly decreased. As fewer and fewer fishers were making their way to Ferryland, the demand for services related to the fishery declined. Employed as a tavern keeper, the owner of the Area E structure most likely witnessed his business shrink as the demand for drink greatly diminished. Unable to sustain a comfortable living, the tavern was abandoned.

14.2 Future Research

This paper throws light on tavern society and life in a prosperous colonial town in eighteenth-century Newfoundland, the fashions and tastes of a local middle class and migratory seamen, and patterns of trans-Atlantic trade throughout the period. During the course of the analysis, several interesting questions arose: how quick were new products being shipped to Newfoundland; could Newfoundland have been a last-stop for ships to dispose of unwanted goods; and could this assemblage have belonged to a heavily drinking family? Further research is required to answer the first two questions, the latter will be analysed below.

As alcohol consumption was quite common amongst many classes of British colonial society during the early modern period, the question regarding what an archaeological assemblage from a heavily drinking family would look like is a difficult one to tackle. In a comparative study of assemblages from two colonial sites in Massachusetts, the Joseph Howland farmstead and Wellfleet tavern, Kathleen Bragdon (1988) proposes that domestic assemblages are characterized by:

1. a large percentage of food preparation and storage vessels in relation to the entire

ceramic assemblage;

2. predominantly local coarse redware
3. fewer wineglasses;
4. pipestem fragments in the hundreds rather than the thousands.

In contrast, tavern assemblages typically exhibit:

1. a high number of vessels;
2. a large proportion of drinking vessels in relation to the ceramic collection as a whole;
3. a larger percentage of ceramic waretypes associated with drinking vessels;
4. a high number of wine glasses;
5. the presence of specialized glassware (i.e. decanters);
6. a larger number of pipe stems.

The distinction between domestic and tavern assemblages, however, is not always so apparent. For example, tavern sites can yield low numbers of smoking pipe or absolutely no pipes at all, and domestic sites can yield large numbers of smoking pipe (Pearce 2000:173; Crompton 2001). As well, are we to assume that the criteria for the domestic assemblage is based on a typical family with an average alcohol consumption pattern. If so, what sort of imprint would an eighteenth-century heavily drinking family have on the archaeological record?

Spude (et al. 2006) examined various nineteenth- and twentieth-century artifact collections and determined that liquor-related items were more frequent in assemblages from families that consumed alcoholic beverages. This should not be surprising when compared with an assemblage from a temperate family, but what does become interesting is that temperate families, by not spending their earnings on alcohol, spend more on medicinal items and/or personal goods.

Using Spude's findings and Bragdon's characteristics for a domestic assemblage, the author proposes the following untested criteria for determining whether an assemblage could have derived from a domestic family that consumed large quantities of alcohol:

1. a large quantity of storage vessels intended for liquids in relation to the total ceramic and glass assemblage. These may include wine bottles used for maturing wine, their bases should lack or exhibit minimal usewear marks indicative of heavy tableware usage.
2. a slightly larger proportion of drinking vessels. This is based on the assumption that frequent usage of a drinking vessel would decrease its uselife, and result in the constant replenishing of vessels.
3. fewer medicinal goods and personal items.

To test the abovementioned hypothesis, further archaeological investigations are required of domestic sites with good historic records. By being able to connect assemblages to particular families with known consumption patterns, can a clearer model for early modern consumption habits be developed.

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Abbreviations

CNS	Centre for Newfoundland Studies, Memorial University of Newfoundland, St. John's, Newfoundland.
CO	Colonial Office, National Archives, London, Great Britain.
K.M.F.	Keith Matthews Fond. Series 4, Sub-series 4.68: Colonial Office Newfoundland. Original Correspondence 1698-1820. In the Maritime History Archives, Memorial University of Newfoundland, St. John's, Newfoundland.
LAC	Library and Archives Canada, Ottawa, Ontario.
MHA	Maritime History Archives, Memorial University of Newfoundland, St. John's, Newfoundland.
NA	National Archives, London, Great Britain.

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Appendices

Appendix I. List of Inhabitants' Names of Ferryland for Select Years.

Year	Inhabitants	Names	Source
Early 1700s	Dobel Family		Community Historical Boards of Newfoundland and Labrador 1996
1704	Mary Benger		Pope 1992:277
1705	John Jenkins	James Benger	Jenkins et al. 1705
	William Shoart	John Hodge	
	John Hill	Thomas Dible	
	Arch Cummings	John Robbins	
	William Roberts	John [Tucker]	
	Richard [Cown]	[?]	
1707	Mary Benger	Thomas Cleasby	Southwell 1707
	Andrew Leake	Timothy Bridge	
1708	Wm. Penpraise	Richard Clugg	Census 1708
	Henry Rex	Wm. Shortt	
	Thos. Dibble	Anthony Parsons	
	Anthony Dibble	John Tucker	
	Edm. Webber	Richard Rogers	
	Oliver Lang	Richard Hamline	
	James Benger	Andw Palmer	
	John Erwin	John Fletcher	
	Anthony White		
1710	Doctor Richard Amass	Anthony Parsons	Marston 1710
1712	James Benger		Prowse 2002:272
	Mary Benger [wife of James Benger]		
	Widow Clapp [widow of Sir William Hopkins]		
	Thomas Reeve		
1715	John Pulling		Anonymous 1715
1730	Thomas Holdsworth	Egerton Filmore	Holdsworth et al. 1730
	Richard Passmore	William Cole	
	William Taylor	Robert Shipard	
	Abraham Filmore	George Holmen	
	Richard Watts	George H. Barbe	
	John Wheaton	John Coleman	
	John Wishale	Robert Howard	
	John Roling	John Ludewig [JP]	
	Arthur Perry	John Keats [JP]	
	Thomas Smith	James Hutchens [JP]	

Year	Inhabitants	Names	Source
1735-1738	Thomas Deeble [fish merchant]		Head 1976:128-129
post-1740s	Robert Carter	Anne Carter	Community Historical Boards of Newfoundland and Labrador 1996
1743	John Benger [JP]		Smith 1743
ca.1763-1800	Henry Sweetland		Smallwood 1984:57
1768	Mary Shea		Keough 2001:213
1769	Mr. Weston		Prowse 2002:334
1773	Mary Shea		Keough 2001:213
1779	William Carter		Edwards 1779b
1787	Francis Free Jr. James Murphy [deceased boatkeeper]	Robert Carter	Bannister 2001:198
1788	Nicholas Murphy [planter] Thomas Norris [tenant of Murphy] John Migault [fish merchant] Justice Robert Carter William Carter [Justice's son and island's sole judge of Vice-Admiralty] Mrs. Tree [proprietor of Ferryland's sole and respected inn] Justice Sweetland and wife [Robert Carter's daughter] William Coman [sole Roman Catholic merchant]		English 1998:477
1789 [-1806*]	Father [Ewer] Yore		O'Donel 1789 Power 1789 *Howley 1979:242
1790	Henry Sweetland [Justice of Peace] Mr.Keene*		Smallwood 1984:57, *59
1794	[Father] Thomas [Anthony] Ewer James Shortall John Coady Jane Holly**	Mrs. Keene* Mrs. Tree*	Burke 1794 *Smallwood 1984:59 **Keough 2001:213
18th-century	Sir William Hopkins* William Bennet* Mr. Morey**	Arthur Holdsworth** Mr. White***	*listed as deceased in 1712 (Prowse 2002:272) ** Prowse 2002:227 ***possibly Anthony White of 1708 (Prowse 2002:227)

Appendix II. Stratigraphy

The following is a breakdown of the events and features uncovered in Area E according to four phases: pre eighteenth-century building occupation, eighteenth-century building occupation, post eighteenth-century building occupation and other events. In some instances, strata that were assigned identical event numbers in the field, were later determined to be separate deposits and thus divided using a letter designator following the event number.

Pre Eighteenth-century Building

Post Moulds

Two rows of post moulds running east-west were uncovered (Figure 5.1). The post mould situated immediately east of Feature 16 was filled in with Event 505 suggesting that at least this post mould, if not the row, predated the structure.

Feature 8

A large rectangular mound located to the north. This feature measured 8 m north-south by 15 m east-west and consisted of loam and rock similar to Event 52. Appears to have been built of soil scraped from a concentric depression up slope south-east of the feature. A William III halfpenny (1696) and a couple of small glass beads similar to those sewn onto Native clothing were uncovered in association with this earthenwork (Tuck 1996a:39).

Feature 8a

A sod retaining wall along the southern edge of Feature 8 composed of alternating humus and subsoil layers. About 1 m high and 1.5 m north-south. Appears as if Feature 8a was built first and then Feature 8 was created by filling in the space between Feature 8a and a wall downslope to the north. This wall most likely pertains to the original fortifications of the settlement (Pope and Tuck 1996:111)

Event 476

Event 476 was assigned to a dark brown silty clay deposit situated beneath Events 90, 479 and 488b and above subsoil. This event pre-dates the structure as it comprises mostly seventeenth-century artifacts and it stratigraphically underlies the dwelling. As the differentiation between Events 90 and 476 was not always clear, mistakes were noted with event changes and strata labelled as Event 476, may in fact have still been Event 90.

Event 505

A secondary deposit of loose brown loam with slag, charcoal, and burnt slate inclusions was located in units E100 S36-101 S36 and continued beneath Feature 16 indicating that

it predates the structure. The origin of the slag, a byproduct of smithing, is puzzling as no blacksmiths were known to have resided in the immediate area. A single pipe stem fragment with a bore diameter of 5/64 inches, consistent with an early eighteenth-century date, was unearthed within this layer (Harrington 1978).

Eighteenth-Century Building Occupation

Post Moulds

Two rows of post moulds running east-west were uncovered (Figure 5.1). The southern row of post moulds were set in Event 476 and covered by Event 90 dating them to the eighteenth century.

Feature 16

Feature 16 was assigned to the poorly-preserved foundations of a fireplace measuring approximately 2.5 m north-south by 4.6 m east-west (Figure 5.1). Constructed from large fieldstones and rubble infill, only a single coarse of the foundation remained.

Event 84

A spotty layer of fine gravel and dark brown sand was uncovered south of Feature 8, beneath Events 66 and 98, and above Event 103. Numerous artifacts including a pipe bowl with a stamped "T" on the side possibly dating to ca.1660 (Oswald 1975:70) were recovered. As this stratum is not natural to the area and is very similar to Event 479, it is believed that this layer was deposited by the tenants of the eighteenth-century dwelling to possibly raise the ground and combat drainage problems.

Event 95

This was an exterior midden located directly to the west of Feature 16. Event 95 consisted of wet brown gravelly clay with a high organic component and was uncovered beneath Event 66. Artifacts from this secondary refuse deposit mend with those from Events 106a, 498 and 504.

Event 98

Located south of Feature 8, this layer contained coarse dark brown sand with a high charcoal component. Event 98 was uncovered beneath Event 66, and above Events 84 and 104. The artifacts recovered from this layer include wrought nails and fragments of pipe, a wine bottle and eighteenth-century ceramics. The artifacts and charcoal suggest this small midden may be the debris from a fireplace cleaning.

Event 101a

Situated within the limits of Feature 16, Event 101a was a gravelly brown clay containing charcoal, fragments of North Devon earthenware, English brown salt-glazed stoneware, English white salt-glazed stoneware, wine bottles, faunal remains, wrought nails and pipes with bore sizes ranging from 4/64 to 7/64 inches. Event 498 was located within this event.

Event 101b

Confined by the outline of the post moulds and beneath Events 487 and 488a, a discretely stratified deposit of charcoal flecked, gravelly brown clay was uncovered. As evidence of an earthen floor, this layer contained a highly fragmented primary refuse deposit of North Devon Gravel, Westerwald and South Somerset ceramic, wine bottles and various pipes.

Event 106a

A gravelly brown soil was uncovered directly west of Feature 16, beneath Event 95 and above Event 504. This layer is a continuation of the exterior midden as artifacts recovered from within mend with those from Event 95.

Event 106b

A layer of gravelly brown soil with English salt-glazed stoneware fragments and a pipe stem was found between Events 98 and 104 in unit E91 S35. Due to its stratigraphic and geographical location, and the fact that the assemblage recovered was similar to that unearthed in Event 98, this event is most likely also a midden associated with the structure.

Event 479

Uncovered southeast of Feature 16 was a layer of dark brown sand and gravel with two mendable fragments from a dark olive green wine bottle. This layer is similar to Event 84 and as it is not natural to the area, it is believed to have been intentionally laid for drainage purposes.

Event 488a

Confined by the outline of the post moulds, beneath Event 487 and above Event 101b, was a discretely stratified deposit of compact grey loam. As evidence of an earthen floor, this layer contained a highly fragmented primary deposit.

Event 488b

A layer of compact grey loam located beneath Event 90 was uncovered southeast of Feature 16 as well as observed in the E93 S40-E99 S40 profile. As evidence of an earthen floor to a later addition to the structure, artifacts were recovered lying in-situ directly on the surface of the stratum.

Event 498

A deposit of fine, loose brown soil with rocks of varying sizes (pebbles to fist-sized) was uncovered within the limits of Feature 16. Designated to separate the interior of the fireplace from the remainder of the structure, this layer included soil that accumulated after the 1993 excavations, and possibly a portion of Event 101a as mends between the two layers were discovered. Mends were also noted with Event 95, a result of either debris from the fireplace being thrown outside, behind the chimney, or frost heave and plowing displacement. Artifacts recovered include fragments of North Devon Smooth earthenware, English white salt-glazed stoneware, dark olive green wine bottles, flint, faunal remains and pipes with bores ranging from 5/64 to 7/64 inches.

Event 499

This event consisted of dark brown loam with rocks of varying sizes (pebbles to boulders) and was situated beneath Event 488b and above Event 479 and subsoil. Two wrought iron nails were uncovered within.

Event 503

A deposit of red silty clay filled an oval depression, measuring 0.63 x 0.9 m, in Event 101b in units E92 S38-E93 S38. At maximum 13 cm thick, this clay deposit contained the odd charcoal fleck and 40 oxidized iron nails; the latter of which discoloured the soil, giving it its red colour, not a result of in-situ burning as originally assumed.

Event 504

Comprising dark brown silty clay with some waterworn rocks and shell, this stratum is a continuation of the exterior midden unearthed to the west of Feature 16. Situated beneath Event 106 and above subsoil, Event 504 contained artifacts that mended with Events 95 and 106.

Post Eighteenth-Century Building Occupation

Feature 17

A scatter of native rock located to the east of Feature 16. It was originally believed that the rock originated from a stone fireplace situated at the east end of the structure, however, there was no obvious in-situ burning uncovered on, around or beneath the stone to support this. Identical to Event 487, this feature is actually evidence of the structure's demolition as it overlies stratigraphic layers representative of past floors as well as capped the post moulds.

Event 51

Found capping the entire area was a layer of grey loam, thoroughly cultivated to a depth of ca.30 cm and with potato bed furrows spaced approximately every 2.7 m. This layer contained a mixture of artifacts dating from the seventeenth century to the present-day.

Event 52

A stratum of grey loam with large rocks, especially along the southern edge of Feature 8, was found beneath Event 51. The stones may be indicative of Feature 8 settling or of an individual cleaning and levelling the site perhaps to use the area for farming. This layer contained a mixture of artifacts from the seventeenth century to the present-day.

Event 66

A layer of grey loam with large rocks, cobbles and artifacts dating from the seventeenth century to present-day was situated beneath Events 51 and 52. The importance of Event 66 lies in the fact that it overlies the chimney foundation indicating that the building was destroyed or dismantled prior to the deposition of this stratum.

Event 90

A layer of brown sandy clay with artifacts dating from the seventeenth century to present-day and rocks ranging in size from 0.02 m to 0.1 m was uncovered beneath Event 66 and above Event 476. Although similar to Event 66, Event 90 was distinguished from the latter stratum by the presence of distinct yellow stones. This layer overlies the demolition of the structure (Feature 17 and Event 487) and was most likely deposited to level the land.

Event 487

Event 487 was assigned to a deposit of randomly clustered native rock, ranging in size from 12 x 7 x 5 cm to 34 x 25 x 20 cm, and intermixed with brown gravelly soil. Located east of Feature 16, this deposit corresponds with Feature 17 and represents the structure's demolition as it overlies past interior floors and capped the post moulds. This layer is not the remains of a past stone floor as it extended beyond the limits of the infrastructure. Although an additional stone feature may have existed at the eastern gable end of the building, it is difficult to say with certainty. The amount of rock, however, suggests that this is not the case and that Event 487 is the remains of the demolition and scattering of Feature 16.

Other Events

Feature 14

A small irregular deposit of charcoal, iron fragments, a shattered pipe bowl and bits of burned mammal bone enclosed by angular rocks was found in the south wall of E97 S58. The lack of evidence for in-situ burning indicates that this was not a hearth.

Event 70

Event 70 was assigned to a layer of compact yellowish clay and gravel situated beneath Event 66 and above Event 71. Located to the east of Feature 16, this layer is possibly a wash from Feature 8. A single fragment of mottled Staffordshire ware was recovered from this event.

Event 71

A deposit of dark loose silty clay was uncovered beneath Event 70 and above Event 72. The artifacts recovered from this layer include fragments of refined earthenware and North Devon Smooth coarse earthenware, wrought nails, and pipe stems with bore diameters of 5/64 and 6/64 inches, consistent with an eighteenth-century date (Harrington 1978).

Event 72

A layer of large native rocks with numerous bits of wood charcoal, preserved wood and two wrought nails was uncovered beneath Event 71. This layer was the limit of excavation in 1993 for the westernmost units.

Event 91

A deposit of soft brown clay with a few pebble inclusions was uncovered south of Feature 8 beneath Events 66, 92 and 105. Artifacts uncovered in this layer include wrought iron nails and two pipe stems, one with a bore diameter of 6/64 inches. This layer may be a wash from Feature 8.

Event 92

This layer is a mixture of yellowish clay and fine sand uncovered both west of Feature 16 and west of Feature 17, immediately south of Feature 8 and beneath Event 84. Found within this layer were fragments of coarse stoneware, wrought nails, faunal remains and pipe stems with a bore size of 6/64th inches, consistent with a late seventeenth- to early eighteenth-century date (Harrington 1978).

Event 100

Event 100 was a mustard yellow gravelly soil intermixed with fine silty sand and an organic layer. Located west of Feature 16 and below Event 95, this event may be related to the structure, however, as it is almost devoid of artifacts, it is difficult to say.

Event 102

Mottled yellow and brown silty clay with amorphous charcoal inclusions and a single pipe stem fragment was uncovered immediately north of Feature 16. This may be a cultural layer deposited to support the fortification or the eighteenth-century structure.

Event 103

A deposit of yellowish brown gravelly soil was found south of Feature 8 and beneath Events 66 and 84. Almost devoid of artifacts, this layer may be a wash from Feature 8.

Event 104

This is a small patch of dark brown moist clay with a high organic component, which may be the remnants of decayed wood. Beneath Events 98 and 106b, this event contained lead shot, two tiny pieces of Westerwald and a small fragment of a pipe stem. This event may be related to the structure, however, as the artifacts are very small in size, it may also be a wash from Feature 8.

Event 105

Sticky greyish clay with small pieces of charcoal situated between Events 66 and 91, and located immediately south of Feature 8, appears to be a fill or a wash as it is devoid of cultural material.

Event 488c

A layer of compact grey loam with a couple of large rocks was uncovered in units E101-102 S36. Stratigraphically contemporary with Event 505, Event 488c contained two mendable sherds from a dark olive green wine bottle.

Notes: Derived from South's Mean Ceramic Date (1978), the modified Mean Ceramic Date Formula is as follows:

$$Y = \frac{(\text{Waretype Date Range Median} - 1697)(\text{No. of Sherds Per Waretype})}{\text{Total No. of Sherds}} + 1697$$

where:

- 1697 is the earliest date of occupation,
- all calculations that yielded a negative product where assigned a value of zero.

The Waretype Date Range Median was calculated from a date range that took into account the earliest known presence of each ware in North America and was further narrowed by the presence/absence of specific decorations in the Area E assemblage.

Sources: Gerrard et al. 1995:288; Weatherill 1983:18; Miller 2000:11; Allan 1984:135, Pearson 1979:187; Temple 2004; Morris 1980, Pearson 1979:201-204; Allan 1984:128, Pearson 1979, Kershaw 1987:63, Breen 2004:48; Hurst et al. 1986:221, Gaimster 1997a:55, Gusset 1980:15, 149; Gusset 1980:153-154; Gaimster 1997a:268; South 1978:72, Rackham 1951:19, Noël Hume 1970b:249, Gusset 1980:13; Gusset 1980:12-13, 15; South 1978:72; Miller 2000:11; Miller 2000:11, South 1978:72; Blanchette 1979:30, 78; Curtis 1987:123, Mudge 1986:120, 125, Pearce 2000:155; Kershaw 1987:64; South 1978:72, Noël Hume 1970a:125-126.

Appendix III. Mean Ceramic Date for Ceramic Assemblage, Area E, Ferryland.

Ceramic Ware Type	Date Range	Date Range Median	No. of Sherds	Product
Merida-type	ca.1550-1650	1600	31	0
North Devon Smooth	ca.1600-1720	1660	26	0
North Devon Gravel	1675-1760	1718	9	189
South Somerset-type	ca.1600-1750	1675	4	0
Nether Stowey	ca.1500-1750	1625	4	0
Bristol -Staffordshire Combed Slipware	ca.1680-1775	1728	1	31
Bristol-Staffordshire Mottled Ware	ca.1680-1780	1730	4	132
Westerwald	ca.1650-1775	1713	143	2288
"GR" Cipher	1714-1775	1745	8	384
Diamond Pattern	ca.1731-1764	1748	19	969
English Brown Salt-glazed Stoneware	ca1690-1775	1733	3	108
English White Salt-glazed Dipped Stoneware	1685-1770	1728	29	899
English White Salt-glazed Stoneware	ca.1720-1787	1754	31	1767
Moulded English White Salt-glazed Stoneware	ca.1740-1765	1753	1	56
British Delftware with Rim Painted Line	1729-1793	1761	1	64
Mimosa Pattern With Powdered Body	1738-1740	1739	1	42
Rouen Brown Faience	ca.1720-1786	1753	2	112
Chinese Export Porcelain	1720-1792	1756	13	767
Redware	1720-1770	1745	2	96
Agateware	1740-1775	1758	11	671
Feather-edge Creamware	1765-1772	1769	1	72
Total			344	8647

Modified Mean Ceramic Date: 1722

Notes: Bottles are numbered according to the order in which they are presented in the text.

BD1: Bore Diameter 1
BD2: Bore Diameter 2
LSH: Lip to String Rim Height
LH: Lip Height
SRH: String Rim Height
FH: Finish Height
NH: Neck Height
BoD: Body Diameter
BH: Body Height
BaD: Base Diameter
RPD: Resting Point Diameter
IH: Indent Height
PMD: Pontil Mark Diameter
H: Bottle Height
T: Bottle Type
D: Date
E: Event
F: Type F Form
M: Mallet Form
SC: Squat Cylinder Forml
C: Cylindrical Form

All measurements are in millimetres.

Appendix IV. Area E Wine Bottle Measurements in Millimetres.

	1	2	3	5	6	7	8	9	10	11	12	13
BD1	18		22	19			19		17			
BD2	17	17	21			40	16		15			
LSH							6					
LH	3.4		3.8	4.0			6.2	0.6-2.6	4.5-7.3			
SRH	4.3-5.7		4.8-9.2	3.6-4.4			6.8	5.7-6.7	4.4-6.3			
FH	6.5-8.6		11	8.0-8.8			12-13.7	6.6-8.0	10-12			
NH				67			100					
BoD		170										
BH							116					
BaD			200	160	160	120	110					
RPD	130		130	150	150	100	90	150		115	99	120
IH							35			39	37	
PMD			44		40	40	28			60	67	
H							248					
T	F	F	F?	M	M	M	SC	C	C	C	C	C
D	1698-1721	1698-1721	1698-1721	ca.1720-1740	ca.1725-1730	ca.1740-1760	ca.1760s-1770s	1735-1760s	1735-1760s	1735-1760s	1735-1760s	ca.1720-1820
E	95	498	95 498	488a 101b	106 a	106a	488b	95	106	488 b	488 b	488 b

Appendix V. Mean Date of Pipe Stem Assemblage from Area E, Ferryland.

The Harrington Pipe Bore Percentage Distribution

Bore Size	Date Range	Number of Fragments
8	1620-1650	0
7	1650-1680	6
6	1680-1710	45
5	1710-1750	28
4	1750-1800	7

The Binford Regression Formula

Bore Size	Number of Fragments	Product
4	7	28
5	28	140
6	45	270
7	6	42
8	0	0
	86	480

$$Y = 1931.85 - 38.26 \left(\frac{(3 \times \text{Total Product})}{(3 \times \text{Total Fragments})} \right)$$

Mean Date for the Assemblage = 1718.36

Appendix VI. The Minimum Number of Individual Animals as Determined From the Principal Bones from Area E, Ferryland.

	Seal	Pig	Cow/ Horse	Sheep/ Goat	Unidentified Large Mammal
Cranium	1				
Tooth		3*		1	1
Scapula					1
Humerus	3	1			
Ulna			1*		
Talus/Phalanx			1*		
Innominate	1				
Tibia					1
Tibula Fibula	2				
Vertebrae	1				1
Long Bone					1
Unidentified					1
Minimum Number of Individuals	3	3	2	1	1

Note: * indicates that elements were recovered from discrete deposits.