

THE ARCHAEOLOGY OF A LATE 18TH CENTURY SEALING POST
IN SOUTHERN LABRADOR
GEORGE CARTWRIGHT'S 'STAGE COVE'

CENTRE FOR NEWFOUNDLAND STUDIES

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KEVIN McALEESE, B.A.



**THE ARCHAEOLOGY OF A LATE 18TH CENTURY SEALING POST
IN SOUTHERN LABRADOR**

GEORGE CARTWRIGHT'S 'STAGE COVE'

by

Kevin McAleese, B.A.

A thesis submitted to the School of Graduate Studies in partial
fulfillment of the requirements for the degree of Master of Arts

Department of Anthropology
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Abstract

Clarke suggests that text-aided archaeology can "increasingly provide vital experiments in which purely archaeological data may be controlled by documentary data, bearing in mind the inherent biases of both" (1973:18). This thesis uses artifacts and text in order to investigate life at Stage Cove, a small sealing post in southern Labrador. Its occupation during the 1770s by approximately 20 to 30 Anglo-Irish sealers, fishermen, fur trappers, and a few Inuit was documented by George Cartwright, the merchant who managed Stage Cove. His journal contains a wealth of general and specific information on the social and economic structure and operation of this and other late 18th century frontier posts in southern Labrador. Like the journals of many explorers or traders however, it presents a singular view of that social and economic structure tailored for a select audience, apparently the British elite (Cartwright 1792 vol.1:xiii-xvi).

This thesis compares artifacts and architectural remains recovered during an archaeological excavation of the site in 1986, with Cartwright's journal and other site documentation. Comparing these independent lines of evidence should provide a more comprehensive interpretation of site activity than would archaeology or the documentary record alone. The degree to which the lines of evidence converge will help strengthen interpretations of the site's history.

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Chapter One

Theory and Method

1.1 Introduction

George Cartwright's journal record of his 16 years as a Labrador merchant has survived to provide a fairly detailed account of life at small sealing and fishing posts in Labrador during the late 18th century. At one of these, Stage Cove, he employed approximately 20 to 30 Anglo-Irish servants. Neither they, nor the generally transient Inuit and Indians who met with them, appear to have documented their life there. There is only Cartwright's documented account since he was apparently one of the few literate inhabitants at the post. As a result, we know the least about most of the people who lived at Stage Cove. Even during the 18th century little was known of these servants; "they are either employed by the merchant or boatkeeper. If by the former, there is rarely anything heard of them. If by the latter, they are subject to all the vicissitudes of his circumstances" (Colonial Office 194/f.301-303).

Considering this documentary bias, information about particular events and general processes in the historic record is not necessarily more accurate than archaeological data reflecting them (South 1977b; Martin 1985:6). The site architectural remains and artifacts are studied here with this problem in mind. Cartwright's singular view of Stage Cove life is compared with a small sample of the site's archaeological record. This sample presents a singular view as well, but the recovered material culture remains are assumed to reflect the activity of most if not all of the Stage Cove inhabitants. Artifacts and text are treated as potentially complementary lines of evidence in this model of text-aided archaeology. Their comparison will help strengthen interpretations of the site's history.

1.2 Research problems

1.2.1 Artifact dating formulas and artifact models

Tables 1.1-1.4

The site artifacts provide a case study for evaluating recognized artifact dating formulas. Ceramic and clay tobacco pipes per feature and for the site as a whole are quantified in these formulas. The results are compared with the documented occupation and dates derived from stylistic analysis. Close convergence of the formula derived dates with the documented ones would support the use of the formulas. This result was noted for only some of the feature and site formula dates (Chapter 5).

The Mean Ceramic Date formula developed by South (1977b) combines the number of recovered pottery sherds of a particular style with the estimated median production date of each ceramic type. The median date for a type is determined by the peak on its popularity curve in comparison with the type's documentary record. Taken together, each median date per type gives an estimate of the median date of site occupation (South 1977b:202-12; Chapter 5.2.4). The Harrington-Binford and Hanson (Binford 1978a:66, 67; 1978b:246-49) Pipestem Dating formulas, which use clay pipestem bore reductions over time, were also employed in dating the site (Chapter 5.3).

The whole artifact assemblage was also classified according to, and compared with, South's Frontier and Carolina Artifact Patterns (South 1977b). These models represent a standardized artifact classification system for artifact assemblages from 18th and 19th century British frontier and colonial sites (Martin 1985). The mean of the frequencies of the Stage Cove artifact groups were compared with those for South's patterns in order to provide a case study for evaluating the patterns.

South's artifact models have been used to study and help explain culture change since they are assumed to represent generalized behavior (South 1977b:230-35; Martin 1985:13). The models are based on assemblages from sites with well documented

occupations and therefore well dated artifacts. South grouped the artifacts into a taxonomy based on function. This taxonomy was divided into a class/group hierarchy, with artifact types in this taxonomy defined by regular attribute clustering characteristic of industrial manufacturing processes (Martin 1985:8).

Within this hierarchical organization South studied artifact frequency, distribution and style using quantitative analysis. Based on this analysis he was able to date the occupation of sites which had these artifacts but little or no documentation. The results also enabled him to determine functional variability within and between frontier sites (South 1977b). Given that Stage Cove was a documented sealing and fishing post, this activity should be reflected in similarities and differences between the frequency means of the site artifact groups and those in the Frontier and Carolina patterns (Chapter 5.5).

1.2.2 Architecture

Map 1.1

The Anglo-Irish occupation of Stage Cove, the buildings and their coastal location represent a settlement pattern based on commercial exploitation of resources. Trigger (1978:169) suggests settlement patterns can be studied at three levels: the individual building or structure, the manner in which these are arranged in relation to one another and the manner in which communities are located on the landscape. In order to study building construction and use, and following the first level of research, exploratory excavations were conducted in several structures, particularly Cartwright's house.

It supposedly measured a substantial 70 x 25 feet (21.4 x 7.6 m) with a large chimney partially constructed of brick by a mason (Cartwright 1792 2:15). Further references to his house and all other information contained in Cartwright's *Journal* will hereafter be referred to by the 1792 date alone. The building was divided into a kitchen, 6 bedrooms, a hallway and a dining room, the latter at least having a wooden floor (1792 2:24-41). The house had at least one door with a porch and the house

walls were apparently comprised of two layers of vertical posts infilled with clay and moss, and attached to sill beams and wall plates (1792 2:14). The roof planks and at least some walls appear to have been sheathed with tar paper (1792 2:14-64). The roofs of the other houses and structures were similarly covered or sheathed with birch bark (1792 2:21-22).

Other initial Stage Cove buildings included a stage for processing seals and cod, fishing flakes, and a shoremen's house, all in use as early as 1771 (1792 1:133). During the summer of 1774 more buildings were constructed including Cartwright's house, a storehouse, a married servant's house, a carpenter's house and a cooper's shop. A house for the sealers, pens for domestic animals and a fenced garden were also built or renovated during this period (1792 2:14-40). Between 1774-1775 Cartwright and approximately 20 servants wintered over at the post (1792 2:2-89).

The site dwellings constitute some of the earliest documented examples of Anglo-Irish winterhouses in Labrador. Anglo-Irish dwelling construction and use is documented, but architectural development of these dwellings has received relatively little scholarly attention (Mills 1977:80-93; O'Dea 1982:55-64). For example, it is not clear to what degree factors such as ethnicity, religious affiliation or community size affected their architecture (Smith 1987:245). This lack of information appears partly due to the short term occupation of many coastal settlements (Dyke 1966:40). Where documentary evidence is available, the information may only cover the end products of a possible evolutionary development of these structures.

Exploratory excavations were undertaken in the Stage Cove structural remains in order to study this probable architectural development of Labrador winterhouses. Cartwright's accounts of building construction were used in conjunction with the excavations. His style of selective and brief record keeping has been described as being similar to the "characteristic reticence of a ship's log" (Story 1980:2, 27-30). In other words, he recorded valuable information for interpreting the Stage Cove

archaeology, but it is often frustrating in its brevity and vagueness. For example, his record of constructing the site buildings, the layout of their interiors and their site locations. Yet combined with the archaeological data, his record is a valuable documentary source for investigating his winterhouse in particular and the site architecture in general.

1.3 Historical Sources

Cartwright's Journal of Transactions and Events During a Residence of Nearly Sixteen Years on the Coast of Labrador, hereafter the *Journal*, is the main documentary source used. Cartwright has been described as "marvellously articulate" in writing his *Journal*, which was published in 1792 (Whiteley 1977:6). It is largely a record of his day to day business activities as a merchant managing a multi-purpose fishery and furring operation between 1770 and 1786:

I do not pretend to give animated descriptions of a country I have never visited, nor of the custom and manners of a people I have never seen. The transactions of the day were in general entered at the close of the same; and little did I then suspect, that they would ever be exhibited to the eye of the public. They were written for no other purpose than to serve as memorandums for my own use and personal reference (1792 I:iii).

The *Journal* covers a wide range of topics. These include the coastal Labrador environment, faunal and floral resources, their methods of procurement including specific descriptions of sealing, fishing and fur trapping, trade with Labrador natives and descriptions of the way of life of the Europeans conducting this business. Cartwright's coverage of these topics is uneven, but it includes descriptions of the technology and methods used to capture seals and salmon, as well as information on diet, clothing and use of buildings. He makes only a few brief references to the goods brought to Stage Cove from Europe and abroad, and the resource commodities exported. It is a selective description of material culture set within its social and environmental context.

The four years of Cartwright's *Journal* that cover Stage Cove describe what is primarily seasonal use of the site. The sparse detail on servant activity is repetitive and vague. For example, Cartwright rarely describes servant activity in his household or in servant houses, how many servants he employed, their organization or the tools and personal goods they used. Nonetheless, he recorded a year in the life of this semi-sedentary community of European fishermen, sealers and trappers when Stage Cove was his headquarters for regional commercial activity during the year 1774-1775.

The *Journal* entries were usually made on a daily basis but there are some gaps of a few days to a week. These gaps appear to coincide with peak periods of activity, such as during the height of the sealing or salmon fishing seasons when Cartwright travelled amongst his many fishing stations and hunting camps. He usually summarized his activities during these trips in his first *Journal* entry upon return to his current headquarters post.

The detail and space he gives some topics suggest they were written either over a period of days or weeks or at a later time from previously collected notes (Story 1980). Apparently he rarely wrote in his *Journal* when wintering over in Britain, except just after returning from or just prior to leaving for Labrador. These were the official beginnings and endings to one of his voyages, a term he used to describe the two and one-half to three and one-half year period a specific group of creditors would fund him, as well as the period he employed his servants.

Correspondence and official reports written by Cartwright or others about sealing and fishing posts are the other primary and secondary documents used in this study. These provide supplementary information not covered in his *Journal*. For example, in 1785 he published a poem called *Labrador: A Poetical Epistle*, whose 365 lines describe the seasonal round he and his servants followed, as well as seasonal activities of the Labrador Natives with whom they traded and worked. The poem's appendix, *Notes*, is similar to a glossary in that Cartwright defines terms supposedly unfamiliar to

the British audience for which the poem was intended. Within it there is also additional information on Cartwright's commercial and subsistence economy.

He also wrote another set of notes entitled *Additions to the Labrador Companion*, which he appears to have been working on during his retirement years in Britain, and perhaps earlier. These incomplete notes, hereafter referred to as the *Cartwright Additions*, contain no specific reference to Stage Cove but include information on how to build structures. Considering the amount of detail the notes include on geography and architecture, it would appear they are based on Cartwright's building experience in Labrador. The notes are personal research material stored at the Centre for Newfoundland Studies, Memorial University (Chapter 7). Access to them is restricted (Marshall, pers. comm. 1989).

Documented references to Stage Cove by visitors were also investigated, such as the log books of two British naval vessels, the *Nautilus* and the *Sandwich*, which anchored in Stage Cove in the summer of 1774 (1792 2:9, 25). The Public Record Office in Britain and the Maritime History Archive at Memorial University were used in order to investigate the logs. Unfortunately, no references to the site were found in either the ships' or captains' logs.

Archaeological research reports for comparable 18th century sites were studied for background and comparative information. These include North American fur trading posts and fishery and trading stations in the North Atlantic region (Faulkner 1985; Trigger 1985; South 1977a). These commercial outposts all had different functions, but like Stage Cove they were similarly connected to their homelands through a trade in resource commodities structured by late 18th century British mercantile capitalism. Ethnohistoric and ethnographic descriptions of Inuit and Innu were also referred to since a few aboriginal people lived at, or visited Stage Cove.

1.4 Stage Cove in the 19th and 20th centuries

Maps 1.1-1.2, 4.1

During this period there are occasional documentary references to Cartwright's former posts near Stage Cove. These were made by agents of European merchants and by naturalists and missionaries travelling through the Strait of Belle Isle (Battle Harbour Diary 1832; de Boileau 1861; Stearns 1884). None is to Stage Cove however, nor to details of Cartwright's business. It was not until July, 1906 that Stage Cove was partially described by Charles Townsend (1908:217-218), a medical doctor and naturalist from New England. He noted one major feature in particular:

Here is the evidence of an ancient house site. There is a small depression in the ground, a number of large stones, some of them flat, bits of what might have been mortar, and some portions of rough bricks, some red, some yellow, some particoloured. The clay of the red bricks is rough, with small contained pebbles...On either side of this depression, and extending back some thirty paces, two low parallel mounds of earth overgrown with curler berry and reindeer moss can be dimly traced. These low earthworks, not over a foot high, are nine paces apart, and a flat gravel floor, moss-covered, separates them. The end of one of them turns squarely at right angles, and extends three yards in front of the depression where the bricks are found.

Assuming Townsend's pace averaged a common two and one half to three feet or slightly less than one m, the "two low parallel mounds...nine paces apart" encompass a distance ranging from less than 23 to 27 feet. Since this dimension compares favorably with the 25 feet width listed by Cartwright, there is little doubt Townsend was viewing the foundation remains of Cartwright's house.

In 1980 Dr. John Kennedy, an anthropologist familiar with Cartwright's *Journal* and Townsend's 1906 account, was conducting field work in southern Labrador. While visiting Stage Cove he noticed a number of features, including one that was relatively large. This depression was characterised by external and internal wall divisions barely visible in a pebble gravel pavement (Kennedy, pers.comm., 1986). Kennedy suspected this feature was part of the foundation of Cartwright's long, rectangular house and, very likely, the same feature seen by Townsend in 1906.

1.5 Stage Cove fieldwork

Map 1.2

Tables 1.1.1.2

Plates 1.1-1.6

Surface evidence for a number of historic structures was quickly noticed upon arriving at Stage Cove in July, 1986. This evidence took the form of soil, brick and rock alignments both above and below the surrounding surface, lush grassy spots, and a small number of surface artifacts visible at a few disturbed locations. Nearly all of the brick, rock and artifact concentrations appeared to be the remains of structures.

Features 1, 2 and 4 contained varying amounts of building foundation remains and were subsequently renamed Structure Areas 1, 2 and 4. Numbers 1 and 2 are on the ridge overlooking Stage Cove while Structure Area 4, on a gentle slope to the north-west and slightly below the other two, has no view of the Cove. Feature 3 is a refuse deposit, marked at surface by a thick patch of grass, and located roughly midway between Structure Areas 1 and 2 on a south-east facing gully leading up to the ridge. Features 5 and 6 located along the shore edge were marked by two artifact concentrations, with the latter also containing surface and sub-surface brick remains. The total site area bounded by the location of the features measures 200 m on its north-south axis by 150 m on its east-west. Future research should help to delineate the site further.

Approximately 7500 artifacts were recovered in total, the majority being lantern glass and nail fragments. Approximately 1400 artifacts were eliminated from artifact pattern analysis because they could not be clearly identified (*i.e.* many metal fragments). Brick fragments were removed as they are not an artifact type used in the pattern research, and shore edge glass fragments were not included as their provenience was weak. The approximately 6100 artifacts used for artifact pattern analysis including trade beads, gun flints, ceramic sherds and various iron and copper items. A few special artifacts such as a door lock and key, a shoe with a heel, a hammer head, and a few pieces of retouched chert were also recovered. The small

faunal assemblage was mainly characterised by native bird remains and domesticated stock such as pig and cow. Leather, wood and bird feathers comprised the organic material. In general the site assemblage indicates a single late 18th century occupation.

Site formation processes were distinguished as much as possible from the site's culture history. This differentiation is necessary given that archaeological data, including structural remains and animal bones, reflect both the "systemic context" and the "archaeological context" (Schiffer 1972:156-65). The former context pertains to material culture use while the latter includes material culture deposition and post-deposition processes. Therefore, material culture use, loss and discard patterns were considered during interpretations of area function within and between structures. At the same time reclamation, disturbance and reuse processes such as scavenging, frost-heave, soil acidity and recycling were also considered.

The next chapter will review the physical environment of Stage Cove and its surrounding area. Chapter 3 follows with a review of the history of European settlement and commercial activity in the Strait of Belle Isle, especially that of the late 18th century British. Chapter 4 describes the Stage Cove excavation and finds, Chapter 5 the artifact dating, Chapter 6 the faunal remains and Chapter 7 the architectural remains. Description and discussion of the structural remains follow that of the artifacts as the latter help to interpret the construction and use of the former. Results of the assemblage and documentary analysis are discussed in the concluding Chapter 8 and evaluated in terms of the research goals.

Chapter Two

Site Description and Environment

2.1 Introduction

A general overview of the environment of the east end of the Strait of Belle Isle, including the Stage Cove site, will first be presented followed by a detailed account of the region's contemporary climate. The particular characteristics of Stage Cove's microclimate midway between the outer coast and the head of the inner bays will also be described. Floral and faunal resources are then reviewed along with an outline of the site's historic climate and a description of the seasonal round practiced by Cartwright and his servants.

2.2 Overview

During the historic period Labrador contained a rich bounty of resources such as seals and whales, cod and salmon, a rich variety of sea and shore birds plus thick forest patches home to caribou and fur bearing animals. By at least the 16th century Europeans began to exploit what Labrador aboriginal people had exploited for millennia, seal herds in the hundreds of thousands, large numbers of whales and countless fish and birds (Tuck 1976; Fitzhugh 1972:12; Audubon 1926). In the ice free months Europeans used boats such as schooners and skiffs in order to take whales, cod, seals and salmon along the coast. When winter cold turned the sea to ice, snowshoes and dog sleds replaced boats, enabling the capture of winter resources such as fur bearing animals, caribou and seals (Cartwright 1792).

The Labrador climate has been characterized by Tanner as "exceedingly unstable weather" (1947:289). In summer he states that "abundant rain and sunshine succeed each other several times a day and now and then violent thunder storms cross the

coastal regions" (1947 1:289). Temperatures for the area are generally cool to cold while wind conditions fluctuate rapidly resulting in frequent storms, fog and substantial snow drifting in winter (Tanner 1947 1:304).

2.3 Site location and terrain

Maps 1.1.1.2

Plate 1.1

Stage Cove is positioned on the east side of White Bear Point, a small, relatively exposed peninsula located approximately midway between the inner bays of St. Lewis Sound and the mouth of the Strait of Belle Isle. White Bear Point is located on the south-west shore of a long, narrow inlet known as St. Charles Channel, an arm of St. Lewis Sound. The site's contemporary map latitude coordinates compare fairly well with Cartwright's, $52^{\circ}17'50''$ north versus $52^{\circ}18''$, respectively. With the west longitude coordinates however there is a notable difference, with the contemporary ones measuring $55^{\circ}42'28''$ versus Cartwright's west longitude of $53^{\circ}29'$ (1792 3:240). The discrepancy in longitude is due to the greater precision of modern marine chronometers versus 18th century ones. Highly accurate chronometers necessary for determining precise longitude were still being developed in the late 18th century (Brown 1951:228-40).

Most of the presently known site features are on high ground of the White Bear Point ridge, a fairly narrow, isthmus bridge to the mainland. The ridge's largest area of relatively level terrain is a small plateau measuring approximately 50 m north-south by 40 m east-west and mainly composed of a sand and gravel matrix. At the north end of this plateau, approximately 60 m back from (west of) the Stage Cove shore, the high ground averages 11.5 m above sea level. Since this plateau and most of the ridge-top is virtually treeless, Structure Area 1 commands an excellent, nearly 360° of the surrounding area.

The site terrain is relatively flat although a few bedrock outcrops, either on the

edges or summits of low hills, break the fairly level topography. Separating these moderately sloping hills are a few short, shallow gullies. These are generally oriented east-west and ascend in elevation from the east side of White Bear Point towards the west side, where they terminate. The west side of this ridge is considerably steeper and in some areas bordered by near vertical ledges and short cliffs.

There is little fresh water on the ridge-top, though some flows intermittently over the east side slope in a gully just south of the bottom of Stage Cove. The main fresh water supply near the site is a small pond about 200 m southeast of the Cove's southern shore, and a small stream in White Bear Bay about a kilometre west of the site.

The best known community near Stage Cove is probably Battle Harbour, established during the late 18th century and abandoned by the mid-20th (Battle Harbour Diary 1832; Dyke 1966). The two closest inhabited communities, Lodge Bay and Cape Charles, are about seven kilometres north and south of Stage Cove respectively. During the summer cod and salmon fishing seasons the residents of Lodge Bay at the head of St. Charles Channel shift out to Cape Charles on the coast, a form of seasonal transhumance.

2.4 Contemporary environment

Stage Cove's latitude of approximately 52° N. is generally considered to be a temperate climate with considerable sunshine. However, extensive fog in the Strait of Belle Isle greatly reduces the amount of sunlight received (Hare 1950:288-89). The cooling effect of the region's fog can also shorten the area's total frost free days. The frost free period from about mid-June to mid-September gives the area's vegetation a relatively short growing season of between 90-120 days, approximately 20-40 days shorter than the average for the rest of Atlantic Canada (Banfield 1981:102, 104). Vegetation, especially tree growth, is restricted by this short growing season at Stage

Cove.

Southern Labrador has a generally subarctic climate for which the Labrador Current and its arctic pack ice and icebergs are largely responsible. Contributing to the cooling effect of ocean and ice is the large centre of low pressure east of Labrador, the Icelandic Low, which pushes cold arctic air south over the Labrador Sea, especially in winter (Hare and Thomas 1974:67). Following Banfield's Climatic Zones of Newfoundland and Labrador, Stage Cove lies within the Coastal Labrador zone (Banfield 1981:128, 129). This zone is described as being frequently stormy, generally with strong winds from the southeast. Summers can be warm when a southwesterly air flow is blowing offshore, but a switch to an onshore flow can quickly cool the coast. This is especially noticeable for the north shore of the Strait of Belle Isle where mean annual precipitation ranges between 900-1200 mm (Banfield 1981:110-12, 128-29).

2.4.1 Snow, ice and ocean conditions

Precipitation in the Strait, the greatest part being snow during the winter months, is deposited over 153 days per year on average. The 300-400 cm mean annual snowfall is considerably more than the rest of Newfoundland and Labrador, though still not as large as the four to five hundred 400-500 cm that falls on parts of the southeast Labrador interior (Dyke 1966:7; Banfield 1981:110-29). Though the mean January temperature for the northeast Strait is minus 12°C and can drop to minus 35°C, Stage Cove appears to be only on the edge of the discontinuous permafrost border (Banfield 1981:116-18, 128; Dyke 1966:7).

Pack ice and fast ice are the two main kinds of ice Europeans and aboriginal people in the site area had to contend with. The former is Arctic ice carried south in winter by the Labrador Current from the eastern Arctic while the latter is sea ice that forms in the winter along the coast. Icebergs are present in the Strait of Belle Isle during the summer months, calved from Greenland glaciers and carried south by the

Labrador Current. One iceberg grounded near Cape St. Charles for a week during the 1986 field season. It was one of the estimated maximum of nine hundred icebergs that annually reach the Belle Isle area in the Strait (Farmer 1981:75). The chain of islands, or skerries, at the mouth of St. Lewis Sound kept it iceberg-free in 1986. Since Cartwright makes no mention of icebergs near Stage Cove, the skerries and ocean currents may have had the same effect during the 1770s.

The site area seems to have been iced in from mid-November to the end of May, a period which coincides with the contemporary transition dates of seasonal freeze/thaw (1792 2:35-36, 68-72; Dyke 1966:5-6). In addition to relatively severe ice conditions Stage Cove is also subject to the effects of ocean storms. Summer storms for the area are usually shorter and less violent than winter ones, which are characterized by high winds and heavy seas, especially along the outer coast (Tanner 1947; Taylor 1974:23, 53).

2.5 Physiography

Southern Labrador has been described as a "rough undulating plateau, the surface of which is marginally quite severely dissected" (Hare 1959:46). Various types of gneiss comprise the basement rock of this plateau, with the north shore of the Strait of Belle Isle forming its southern boundary (Bostock 1983:xv). Stage Cove lies within the physiographic area sometimes known as the south-eastern plateau belt, a hilly region of generally low relief (Fitzhugh 1972:13). There are impressive coastal cliffs in the vicinity of Cape St. Charles however, and along the north shore of the Strait ranging from 125-185 m above sea level (Fitzhugh 1972:13; Canada N.T.S. Maps, St. Peter Bay/Fox Harbour 1965). The plateau is inland to the north and west of these cliffs, drained by various rivers such as the St. Charles, St. Lewis and Alexis. These empty into the ocean near Stage Cove at Lodge Bay, St. Lewis Inlet and Alexis Bay, respectively. Cartwright and his servants used all of these rivers as routes into the

interior for wood harvesting as well as for fur trapping and salmon fishing (1792 1:231-33; 2:10-13, 33).

At the coastal edge of the south-eastern plateau belt there are many locations where "marine submergence has stripped the land clear of all (glacial) drift" (Hare 1959:47). This process is illustrated by the generally rocky and barren Stage Cove shore and that of the surrounding capes, bays and inlets. The rocky shore at the site is only occasionally interspersed by sections of flat or slightly sloping ground comprised of clay.

The soil on which the Stage Cove structures rested is a podzol type noted for its peat and rock outcrops (National Atlas of Canada 1982). This soil usually occurs in "coarse to medium textured, acid parent materials, under forest or heath vegetation in cool to very cold humid to perhumid climates". It is a type which also occasionally occurs in "wet, sandy sites in areas of subhumid climate" or "where parent materials were once calcareous" (Clayton 1977:93). The geology, climate and vegetation of Stage Cove satisfy most of these conditions and, in fact, the site's soil is a mosaic of peat plus patches of sand of varying densities and grain size. Peat dominates the soil profile, but areas of sand and sandy peat are located along the ridge top where many of the features representing site structures are located.

An average pH level of 6.0 was recorded from sandy peat at various locations within Structure Area 1 and on its edges. Very acidic to very alkaline soils range between 4.0-10.0 pH, respectively, with a neutral pH of 7.0 (Crozier 1981:43). The Structure Area 1 pH is not overly acidic, a factor that probable contributed to the relatively good preservation of bone and leather artifacts from this feature.

2.6 Vegetation

Plates 1.1,1.6,1.7.7.10

Though not on the outer coast Stage Cove is still within a coastal tundra vegetation zone. Much of this zone in Labrador extends southward from at least the Hamilton Inlet area as a relatively narrow coastal strip. This strip is adjacent to a number of different types of vegetation on its inland border, which in the site area is sparse forest termed a forest-tundra sub-zone. This sub-zone, an ecotone or "transition belt," has groves of primarily stunted conifers intermingling with larger areas of tundra. The tundra is comprised mainly of a lichen/heath cover with occasional patches of grasses and alder or willow thickets near bogs, ponds, creeks and rivers (Hare 1959:33-35).

Lichens, mosses, grasses and flowering plants comprise the major vegetation types at the site as they do on much of this relatively treeless coastal edge (Taylor 1974:24). Sphagnum moss, usually associated with peat deposits, is quite common near bogs and waterways in the site vicinity while 'caribou moss' or the genus *Cladonia*, is usually found in drier conditions (Hare 1959:27-32). Flowering plants growing at the site include orchids, violets and buttercups. These intermingle with various berries such as bakeapples (cloudberry), crow berry, crackerberry, tundra cranberry and wild currants. Cartwright actually mentioned only wild currants growing at Stage Cove (1792 2:66).

An unusual patch of vegetation was located along a portion of the cove's shore edge. It consisted of lush grass and a tall plant with large, green leaves which had coarse-toothed edges. The patch measured approximately four by two m and was positioned in a notch on the landward edge of a slab bedrock ledge approximately one and one half metres above sea level. No artifacts or faunal remains were recovered during the coring and shovel testing of the dark brown, slightly greasy soil. Nonetheless, this ledge seemed suitable for building fish drying 'flakes' and/or other fishing related structures.

Many yellowish-green flowers, each on a single, thin stem were growing in a fan shape from the distal tip of the plant's thick, main stalk. The plant was tentatively identified as 'Alexander' (*Smyrniololus atrum*, Ross-Craig 1972 12:Plate 7B) by local informants and by a visiting archaeologist (Fitzhugh, pers.comm 1986). Alexander is a member of the umbelliferae or parsley family, native to both Britain and North America (Montgomery 1965:105; Ross-Craig 1972 12, 13). The plant can be used in salads or as a boiled vegetable (Scott 1979:33).

Whether Alexander was used as a wild vegetable at the site or planted on this bedrock ledge is unknown, but Cartwright was aware of a large cluster of the plant near the site at the mouth of a river in St. Lewis Inlet. He named it the Alexander River due to the "abundance of that plant growing on its banks" and, as with his use of the native plant Labrador Tea (*Ledum groenlandicum*) he may have been aware of the culinary use of Alexander (1792 1:130). Cartwright grew root vegetables at his Stage Cove garden and planted potatoes on a nearby island (1792 2:14,9). He also grew peas and watercress as well as root vegetables at Ranger Lodge, one of his posts approximately five km north (1792 1:229; 2:20).

A few shrubs of various types were also noted at the site, as were a very few stunted spruce and pine. Forest groves in southern Labrador have been described as lichen woodland as they can contain a considerable variety of lichens and shrubs with a smaller number of tree types (Hare 1959:23). The dominant tree species is black spruce though white spruce and balsam fir are widespread, as is the larch. Pines are infrequent whereas common hardwoods are the white birch, balsam poplar and aspen (Hare 1959:23).

Trees at Stage Cove do not actually give way to tundra but exist as patches within it, giving the area a dual boreal/arctic character which Dyke has described as a 'Scrub and Submarginal Forest' zone (Dyke 1966:9). Larger stands of spruce forest are only 8-12 km distant from the site in Lodge Bay and St. Lewis Bay. Using timber

from stands like these, Cartwright and other Europeans built houses, boats and ships with decks (Lysaght 1971:444). Nearly all the aforementioned coniferous species were represented in the wood samples taken from Structure Area 1, with spruce and pine predominating (Young 1987). Additional species represented were hemlock, cedar or fir and oak. The oak was very likely imported since no Canadian oak species grow in Labrador (Hosie 1979:192).

2.7 Fauna

Seals were one of most important economic resources at Stage Cove. The harp, ringed and bearded were all hunted by Europeans in the area, but harp seals were the primary prey. Oil from these seals, as well as oil from whales and seabirds, was being increasingly used in late 18th century Europe and North America as fuel for lamps, in cooking, as a lubricant and in the manufacture of jute, leather and soap (Lavigne and Kovacs 1988:106). According to Cartwright, seal meat was used mainly for sled-dog food during the winter and not human consumption (1792 1:68, 98).

Salmon and cod were two other important marine resources that Cartwright exploited, for both commercial and subsistence purposes. Cod were netted and taken on hook and line in Stage Cove as well as in various other locations in St. Lewis Sound and were later processed on the stage or covered wharf (1792 1:130). This stage was presumably the structure for which Stage Cove was named. Salmon were usually taken on the nearby St. Charles, Alexis and St. Lewis Rivers with nets set at, or upstream of, the river mouths (1792 2:10, 11-14). They were set in a series at these locations to form traps or pounds that generally stretched across a river, sometimes from bank to bank. A structure, often called the salmon house, was built to process and store the fish at these fishing stations as well as provide shelter for the fishing crew (1792 1:122, 138; 2:9-11).

Caribou were the preferred subsistence species of the large terrestrial mammals,

and these may have been Woodland, not Barren Ground caribou. Woodland caribou inhabiting southern Labrador today are usually found "in small groups summering on the alpine slopes and uplands...with winters spent in the forest" (Fitzhugh 1972:21). According to Cartwright small groups of caribou kept to the hilltops and ridges in the summer and travelled between forest patches and coastal or pond islands in the winter (1785 Appendix:1, 4; 1792 1:75-81, 103, 242).

Black bear and polar bear were hunted and eaten as well, though their skins may have been more valued than their meat (1792 1:196; 2:100, 480-87). Various other mammals were included in this dual commercial/subsistence category such as wolves, wolverines and many other fur bearers such as fox, marten, otter and beaver (1792 1:94-116; 2:154). These mammals were all occasionally eaten as were rabbit and porcupine (1792 2:44, 58).

Besides furbearing animals a great variety of land, shore and sea birds such as grouse, various ducks, geese and ptarmigan were hunted for domestic consumption (Cartwright 1785 Appendix:1-4). Two favourite shore birds hunted near Stage Cove were the curlew and eider duck (1785:2-18; Appendix:1-6). Since very large numbers of these birds nested along the Labrador coast at this time substantial quantities of eggs from some of the island and cape nesting sites were also collected (1792 1:128; 2:39, 46-56).

2.8 Historic environment

The Europeans had to deal with a variety of environmental conditions, some harsh and all based on a well-defined seasonality. There were occasional warm days in August and September, but much of the year was cool with winter days often quite cold. Between November 16 and December 21, 1774 Cartwright recorded temperatures colder than 32° Fahrenheit for 34 days, with most days in the 15° to 20° range (1792 2:34-41). The most difficult yearly periods appear to have been during

the transition between open and 'closed' or ice-covered water when water travel or storing boats onshore for the winter could be abruptly terminated by rapid weather changes (1792 1:283).

Considerable winter snowfall occurred in the site area during the 1770s, though the amount is not given in feet or inches but only vaguely described in relation to covering windows or doors (1792 2:44-50). The mean annual snowfall for this area may very well have been greater during the mid-1770s than today as that was a period when colder temperatures have been recorded world-wide. These periods of cold seem to be related to periods of low sunspot activity, the longest of which occurred in a period between 1645 and 1715. The solar astronomer Eddy (1977:87) has called this period the 'Maunder Minimum' after the British solar physicist E. Walter Maunder who first noted the possible significance of this phenomenon. Its effects are not completely understood but this seventy year period, and a number of succeeding shorter ones "corresponds almost precisely with the coldest excursion of the little ice age from the 16th century through the early 19th century" (Eddy 1977:87).

Eddy was able to chart the cycle of sunspot activity through his study of historic records and correlate it with world-wide climatic conditions. This cycle varies in amplitude and frequency, but during the mid-1770s his graphs indicate the virtual absence of sunspot recordings, a situation which corresponds to one of many peaks in world-wide winter severity (Eddy 1977:87). Therefore, the large snowfalls and substantial quantities of ice that Cartwright recorded could have been influenced by a low period of sunspot activity at that time. Tanner and others have also mentioned though, that snow depth in southern Labrador may depend more "on the wind than the actual amount of precipitation" (Tanner 1947 1:304; Hare and Thomas 1974:118).

The seasonal round of activity practiced by Cartwright and his servants in this subarctic climate is described in Table 2.1. The next chapter describes the historic context for this commercial settlement.

Chapter Three

Settlement and Mercantilism in the Strait of Belle Isle

3.1 Introduction

This chapter presents an overview of the late 18th century social and economic context in which Europeans and aboriginal people operated. British settlement in the Strait of Belle Isle, characterised by sealing and fishing posts, will be highlighted. Earlier commercial activity by the Basques and French will be briefly reviewed. British-Inuit contact will also be discussed as this relationship appears to have been crucial to the sealing, fishing and trading which occurred at Stage Cove.

3.2 Late 18th century resource exploitation, settlement and trade

Map 1.1

When Europeans began commercial operations in the Strait of Belle Isle in the late 16th century A.D., both the Innu, known ethnographically as the Montagnais-Naskapi Indians, and the Inuit, occupied the region (Jordan and Kaplan 1980; Tuck 1983:58-59). The initial attraction to the area for the Europeans appears to have been sea and land resources that were abundant and profitable (Jordan and Kaplan 1980). Whales, cod fish and seals were sought after first by the Basques, then in the 17th century by the French and in the 18th century by the British. French Canadians and colonial Americans competed with them in this commercial activity (Trudel 1981).

Each group concentrated on certain species and subsequently built fishing stations at appropriate locations (Barkham 1980). The European and colonial participants in these fisheries changed over time, but operation of the fisheries changed little in two hundred years (Head 1976:141). For example, both the French and British took seals and cod inshore, often fishing from the same bays and coves the Basques used (Trudel 1981). Yet unlike the Basque reliance on whales, the French and British could not depend on a single

fishery, but relied on both cod and seals for their economic stability. Both groups also trapped and traded furs with aboriginal people, while the British developed a river mouth salmon fishery as well (Whiteley 1976). These types of resource exploitation were preferred by British merchants such as Cartwright in order to secure financial success and repay debts to those financing their various entrepreneurial ventures.

The British multi-purpose seal and salmon fishery in the Strait was characterised by European servants occupying posts year-round (Thornton 1977:157-60). This fishery contrasted with the more seasonal cod fishery in the waters around the Island of Newfoundland. This more migratory fishery was the Island's principal commercial activity during the 17th and much of the 18th centuries, with large numbers of fishermen and merchants regularly sailing across the Atlantic. But during the late 18th century this fishery with its transient servant population was slowly being supplanted by a resident fishery, despite British government reluctance to sanction this development. The transition from a servant fishery to a resident one took longer to occur in the Strait of Belle Isle, the northern edge of Newfoundland's coastal frontier, and had only just begun during the 1770s Stage Cove occupation (Thornton 1977:159-61).

As with the Europeans, Labrador aboriginal people were probably initially attracted to the Strait of Belle Isle by the abundant marine resources, especially whales, seals and cod (Martijn 1980). During the 17th and 18th centuries however, European material culture, especially iron ware, boats and boat gear rapidly became a very important commodity, especially for the Inuit (Kaplan 1983). They acquired these goods through raiding and scavenging European fishing stations, peaceful trading with their occupants and, in later years, employment as servants (Hiller 1967; Clermont 1980). The Inuit highly valued European manufactured goods, and by the early 18th century were moving them north within a trade network which at its peak included most of the coast of Labrador, a distance of approximately 1100 km (Kaplan 1983).

The European/aboriginal exchange of manufactured goods for animal pelts and

whale bone, when it did occur peacefully, was not of uniform importance to all the participants. For example, Cartwright appears to have traded only infrequently with the Innu and exchanged smaller quantities of furs and European goods with them than with the Inuit (1792 2:9, 21-54). Trade in the Strait of Belle Isle seems generally to have been sporadic, fluctuated in its magnitude and often resulted in only limited profits for Europeans (Trudel 1981:332, 385; 1978:115). They appear to have generally amassed greater profits through their own whaling, sealing, fishing and fur trapping (Martijn 1980; Taylor 1980).

3.3 Aboriginal/European contact and conflict

Map 1.1

It is clear from the archaeological record that aboriginal people occupied southern Labrador during the late prehistoric/proto-historic period. The predecessors of the Innu, known archaeologically as the Point Revenge Culture, occupied much of southern Labrador between 1200 and 500 B.P. (Fitzhugh 1978:66; Loring 1983). Like previous aboriginal inhabitants of the area these groups hunted seals, though a greater reliance on terrestrial resources such as caribou and animals of the forest is evident in their subsistence pattern (Fitzhugh 1978:68-69; Loring 1985:134).

During the proto-historic period c.500 B.P. these Indian people began to share their territory with the Neo-Eskimos, also known as the Thule (Fitzhugh 1985:25-26; Loring 1983). These Inuit journeyed south from the Arctic along the north and central Labrador coasts during the late 14th and early 15th centuries (Jordan and Kaplan 1980; Kaplan 1983). By the 17th century the Thule appear to have displaced the Point Revenge Culture people from much of their coastal territory, possibly because of conflict over procuring coastal resources (Fitzhugh 1985:26).

At present, there is only slim evidence for aboriginal occupation of the Stage Cove area. Random surface finds of stone tools and flakes have been recovered near Stage Cove, at Cape St. Charles and at Mary's Harbour though no systematic survey or large-

scale excavations have been undertaken in the area. The recovered artifacts have been attributed to Point Revenge, Maritime Archaic and Palaeo-Eskimo groups (Fitzhugh 1985; Tuck 1983:58-59).

Relations between Inuit and Europeans throughout the historic period took a variety of forms, though mutual mistrust and frequent hostility appears to have characterised much of this interaction. Gosling (1910:150), in an ethnocentric assessment of this violence, called it "the depredations of the Eskimos." In fact, this conflict characterises what was probably an unstable and dangerous social climate which seems to have prevailed from at least the late 16th century up to and including the early 1770s (Trudel 1978:114-17).

Frequent skirmishes were fought at that time between the Inuit and Europeans. Inuit raids on French sealing and fishing posts, such as *La Forteau* and Red Bay, and French counter-attacks appear to have peaked between 1715-1730 (Trudel 1978:115-16). Sometimes the posts were pillaged during seasons when the French were absent, but the Inuit also made direct attacks on the French, often by ambush (Trudel 1978:115-16). By about 1730 Inuit raids on the French appear to have declined in favour of trade with French merchants, such as Riverin and Marsal at Cape St. Charles (Trudel 1981:317; Privy Council 1927 7:3284-85). Yet, during the mid-18th century large parties of Inuit were still making annual raiding and trading journeys into the Strait of Belle Isle, especially in the open water season (Kaplan 1983).

Following the British takeover of southern Labrador in the 1760s, they became the main adversaries of the Inuit. During this period both groups fought a number of skirmishes at Cape St. Charles, with lives lost on both sides (Rothney 1934). According to Cartwright, conflict in the Strait of Belle Isle during the 1760s "deterred every other adventurer from extending his business to the north of Chateau Bay" where there was a "blockhouse with an officer and twenty men plus a Sloop of War" (1792 1:1). By the 1770s, however, this adversarial climate began to be supplanted by peaceful trade and

Inuit employment at British sealing and fishing posts (1792 1:138-50; Trudel 1981:380-83). Factors responsible for this development included a growing and well-armed British work force backed up by British armed forces. They appear to have intimidated an Inuit population decreasing in numbers as a result of recurrent conflict with Europeans, and as a result of contracting European disease (Kaplan 1983). Other important developments were the establishment of Moravian missions north of the Strait of Belle Isle and sealing/trading posts within it (Hiller 1967).

During the late 18th century a number of missions along the central and northern Labrador coast were established by the Moravians, a Protestant missionary sect comprised mainly of people of German ethnic background. A small number of Moravians could speak Greenlandic Eskimo, based on their previous missionary work (Kennedy 1985:14, 151). The Moravian ability to communicate with Labrador Inuit made them useful for the British and resulted in a *de facto* alliance between both groups of Europeans. With the Inuit diverted or contained along the central Labrador coast at the Moravian missions, violent encounters with Europeans, especially the British, would decline (Trudel 1981:382-84). The new *Pax Britannica* would then allow British commerce to flourish in the region, including trade with aboriginal groups (Trudel 1981:380-83). Cartwright participated in this commercial expansion, a process which included linking up with the still operating Inuit trade network.

In the late 18th century approximately 1300 Inuit lived on the central coast south of Nachvak Fjord in northern Labrador and approximately 1700 north of the Fjord (Taylor 1974:30, 34-39). Inuit groups numbering 30 to 40 visited Cartwright's posts at Lodge Bay, Cape St. Charles and Stage Cove during their seasonal trading journeys into the Strait of Belle Isle. Both Inuit and Innu traded furs there as independent trappers or trapped fur for Cartwright using traps, guns and ammunition he lent them. Inuit also hauled his equipment on their komatiks. In return they received goods such as iron ware and beads, and they stored equipment at his sealing and fishing stations (1792 1:93-118;

2:17, 73). He encouraged their year-round occupation of the Stage Cove area in the early 1770s and employed a few Inuit and Innu on both a full and part-time basis (1792 1:138-50; 2:33-34). During the winter of 1772-1773 Cartwright persuaded an Inuit extended family group of about 10 people to winter over at Stage Cove (1792 1:262). During this same winter he took a group including two men, two women and a child to Britain on a good will visit (1792 1:259, 262). Tragically, all but one died there of smallpox (1792 2:243, 424).

3.4 British fisheries in Labrador

During the late 18th century the annual migratory fishery between Britain and Newfoundland was on the increase, largely because of economic and political factors in Europe and America. The European population was slowly increasing, which resulted in greater demand for fish. Much of this fish was caught by fishermen from Newfoundland, from colonial America, and by the French. However, the colonial American and French fisheries in the waters around the Island of Newfoundland were drastically curtailed as a result of the American Revolutionary War and war between England and France. British and Newfoundland fish merchants and fishermen expanded their Newfoundland operations in order to take advantage of this lack of competition and increased demand.

This economic expansion extended into the Strait of Belle Isle on a smaller scale as the British had only recently gained control of it, an area peripheral to their main fishery and population centres around south-eastern Newfoundland (Head 1976:181). This northern expansion was characterised by a greater reliance on the lucrative seal fishery, not just cod, the mainstay to the south. The total amount invested by British merchants in southern Labrador at this time is unknown, but Cartwright and his partners alone invested approximately £20,000 during his sixteen year career (Whiteley 1977:8). The larger merchant houses such as Noble and Pinson of Bristol and Dartmouth, competitors of Cartwright, must have invested considerably more.

These investments coincided with a time when the British market for seal oil was growing, particularly for use in lamps (Rothney 1934:266). Although profits from the trade in oil fluctuated considerably, sealers at Fogo and Twillingate in north-eastern Newfoundland earned over £12,000 from seal oil exports in 1742 (Sanger 1977:141). By the 1770s Labrador merchants exported seal oil worth an average of approximately £7,000 annually, surpassing seal oil export in the Fogo-Twillingate and Bonavista Bay regions at that time by approximately £1,500 each (Candow 1989:23).

The first British merchants at Cape St. Charles, Cartwright's initial sealing post, were Bayne and Brymer. In 1763 they were granted a four year lease by the new British governor of Quebec to operate a seal and cod fishery (Trudel 1981:367). Their grant territory is described in a very general way as the "tract of land ...commonly known by the name of Cap Charles" (Privy Council 1927:3671). The next merchant in the Cape St. Charles area, Darby, operated a seasonal whaling, sealing, fishing and trading post there between at least 1767 and 1770 (1792 1:3; Trudel 1981:370). He built his winterhouse 12 km north of Cape St. Charles at the head of Charles Channel, which by 1770 became Cartwright's headquarters (1792 1:2).

The business of Cartwright and his servants took place in relative isolation, but his posts were linked with international economic activities via yearly supply ship visits from Britain, Newfoundland or Quebec plus the occasional visit from a British naval vessel (1792 1:283; 2:16). All the supplies imported to these posts were traded for, or purchased with the profits from whalebone, seal oil, pickled salmon, dried cod and furs (1792 1:151, 282; 2:11-44). Cartwright's operation then was similar to that of 17th and 18th century Newfoundland planters who prosecuted the inshore fisheries, except that his sealing, fur trapping and trading with the Inuit and Innu were of greater economic importance.

3.5 Servant fishery

The servants involved in the fisheries came mainly from south-west Britain and

south-east Ireland (Thornton 1977:160, 161). These novice sealers and fishermen were generally young men from both urban and rural communities who brought a variety of skills with them such as coopering, carpentry and fishing (179, 2:1-10). In addition to servants from overseas, there is also evidence that a small labour pool comprised of resident Newfoundland fishermen, sealers and fur trappers was available during various seasons. For example, Cartwright occasionally mentions hiring fishermen and sealers from Chateau Bay approximately 25 km south-west of Stage Cove (1792 1:279). He employed furriers from Fogo Island off the north-east coast of Newfoundland and some men may also have come from fishing ships present in the Strait as part of the summer floater fishery (1792 1:156; Head 1976:181).

During the 1760s the total British labour force fishing for cod and salmon at the height of the summer season in the Strait of Belle Isle appears to have averaged about 635 (Head 1976:144). The total winter population during the late 1760s and early 1770s, though not documented, was probably smaller. The Newfoundland government's restrictions on settlement policy and the incipient nature of the British winter seal fishery in the Strait of Belle Isle contributed to this seasonal decline (Head 1976:181). In St. Lewis Sound during the 1770s merchants' records indicate a range of between 200 and 250 sealers and fishermen (Trudel 1981:370; Whiteley 1977:3, 14).

Cartwright's general references to servants whose presence was not documented by other merchants suggests the total population may have been greater, especially during the summer (1792 2:2, 15, 25-74, 106). In the early 1770s this population would probably have decreased considerably during the winter, but after 1775 it may have averaged close to the summer total. The Quebec Act was implemented that year sanctioning winter occupation of sealing/fishing posts. Cartwright increased the size of his own servant crew in 1775 to at least 73 following the expansion of his business in Sandwich Bay (1792 2:365-67).

The wages paid to these servants during their two or three year voyage varied from £

5-7 for an inexperienced youngster, that is "a person in the first year or early part of his servitude," to £ 18-25 a season for a skilled fishermen (Mannion 1977:1; 1792 1:x). Alternative means of payment were shares in the profits made from fish and other resource commodities produced during their voyage, or a combination of shares and wages. Cartwright appears to have paid most of his European servants in wages while some of the men he hired in Labrador were paid in shares. Both were also supplied with some of their work clothing and equipment (1792 1:vii, 46, 146).

3.6 Cartwright's sealing and fishing posts

Map 1.2

Cartwright began using Cape St. Charles in 1770 as a seasonal, multi-purpose fishery station up until approximately 1772 whereupon he lost control of it to the merchants Noble and Pinson. From 1770 to the winter of 1773-1774 he resided in Darby's renovated winterhouse at the head of Charles Channel. He called this house *Ranger Lodge* after the British naval vessel H.M.S. Ranger, his first supply ship then moored in Lodge Bay (1792 1:38). *Ranger Lodge* was his winter headquarters post for four years during which time he built new structures at various other locations in St. Lewis Sound, including Stage Cove, his sealing and cod fishing post approximately six km south.

As with most European sealing stations of the time, sealing was usually done with nets in the early winter when certain crucial ice and ocean conditions aided its success. The seals were taken at a number of locations near Stage Cove just prior to freeze-up in the fall as the large herds migrated southward. Stoppers, or set nets, and shoal nets rigged in tandem would form a net wall stretching across a tickle or channel (1792 1:64; 2:30-37). These seal net pounds could be easily blocked off or closed by raising the net or nets from their slack or floating position using capstans (1792 1:64). The nets surrounded the seals and when pulled taut, this mesh barrier trapped them within a semi-submerged corral where they were clubbed or shot.

Smaller nets were used where coastal topography or currents precluded the construction of seal pounds. These floating nets or floppers had floating poles attached to their tops. The poles helped to spot the nets in the ice-covered water, as well as remove them from the ice (1792 1:64). For example, even after an area had been frozen over seals could still be removed from the ice by cutting holes in it. A pole was threaded through the net mesh, and the net drawn up through the ice with its seal catch (de Boilieu 1861:37). At Stage Cove most of the seals were then cached on shore or pelted and cached over the winter to await rendering of their blubber into oil during the warmer days of spring and summer (1792 2:26, 33).

During the summer of 1774 the site became more of a multi-purpose post following the construction of what was essentially Cartwright's winterhouse plus a number of servant winterhouses and shops. From this new headquarters he managed all of his mercantile activities in St. Lewis Sound. At this time the post was occupied by between 20-30 young Anglo-Irish men plus a few women and children of both Anglo-Irish and aboriginal descent. Cartwright's common-law wife and his personal servants lived with him in his house from August 1774 to August 1775. Certain skilled personnel such as a doctor and his supply ship captain also resided there. The other servants such as the sealers, carpenter and cooper had their own quarters as did at least some of his aboriginal servants (1792 1:282; 2:14-42).

In August 1775 Cartwright made an unexplained move north to Sandwich Bay where he built a new house and headquarters post called *Caribou Castle*. He probably moved in order to establish a new business territory where there were no competing merchants. During his move he shipped most of his household goods and supplies from Stage Cove to *Caribou Castle* and to other posts he established in Sandwich Bay (1792 2:105).

Cartwright continued to use Stage Cove in some fashion up to 1779 at least as a supply harbour. He also operated at least one salmon fishery post in St. Lewis Sound at

this time, so at least a half dozen servants may have occupied Stage Cove on a seasonal basis based on the logistical requirements of the fishery (1792 2:362). In the autumn of 1775 he employed a servant, possibly a planter, as his agent to manage this fishery operation. After 1775 he made extremely few Stage Cove references, which he often then called "Charles Harbor" (1792 2:211, 485; 3:240).

In 1778 Cartwright records that the privateer who raided his Sandwich Bay post also "plundered my possessions" at Ranger Lodge in Lodge Bay and at Charles Harbour (1792 2:362). Charles Harbour is last mentioned during a visit in the summer of 1779 when he noted that all his houses were "shut up" as they had been since the spring of 1779 (1792 2:485). At that time he gave his salmon fishery equipment, apparently out of generosity, to a planter living at Port Marnham in St. Lewis Sound (1792 2:485-86). After 1779 Cartwright ceased to record any Stage Cove activity, which suggests he abandoned or sold the post. The excavation of building remains at the site and the artifacts recovered will be described in the next chapter.

Chapter Four

Excavation and Artifact Descriptions

4.1 Introduction

Table 1.3

Excavation of each site feature is first described, followed by a description of diagnostic artifacts organized according to South's Group-Class artifact taxonomy. Artifact descriptions are further subdivided per feature.

The ceramics and tobacco pipes are described separately in Chapter 5. They were quantified and used as dating tools in comparison with stylistic and documentary research. The nails are described separately in Chapter 7 in order to help interpret the structural remains.

4.2 Methodology

Map 1.2

Plate 1.1

The three person field crew and one part-time assistant from the community of Cape Charles worked for nine weeks from July 4 to September 9, 1986. All of the Stage Cove shoreline and ridge top were surveyed on foot by non-systematic traverses prior to excavation. Cultural depressions and artifact clusters representing remains of structures were found on the ridge top. None was located along the shore edge but locations suitable for test excavation were noted. These were level spots along the shore and where boats could easily have been unloaded. These areas were surveyed more intensively later in the field season and numerous shovel tests were dug at that time.

Excavation within and around features representing buildings comprised the bulk of the field work, especially at Structure Area 1, the feature least disturbed. It appeared to be Cartwright's house, the building with the most detailed *Journal* description. With nearly a 10 % sample this feature provided much of the site data.

The balance came from test excavation within and between features.

Subjective sampling of features representing structures was followed rather than random sampling. Random sampling was considered inappropriate since a study of architectural remains was one of the main objectives of this research. A subjective sample seemed more appropriate given that a sufficient amount of structural remains were visible at surface for testing. This testing was largely exploratory because of the short field season and the small crew. The excavation units were stripped of their sod with shovels and trowels. Natural stratigraphic levels were used during excavation and all units were either taken to bedrock or to sterile sand and gravel. Excavated soil was generally sieved through quarter inch mesh, and flotation of column samples was done in order to ensure adequate recovery of any small mammal and fish bones.

All artifacts were recorded in three dimensional provenience in relation to an established datum and all units were mapped, profiled, photographed, backfilled and resodded. During fieldwork iron artifacts were kept in fresh water. Along with the rest of the assemblage they were conserved and catalogued as completely as field conditions permitted. The faunal sample of 383 pieces was studied by James MacLean at the Howard Savage Faunal Laboratory, University of Toronto.

4.3 Feature description and excavation

4.3.1 Structure Area 1

Maps 1.2, 4.1

Figures 4.1-4.3, 7.2, 7.3

Plates 1.2, 1.3, 4.3-4.8

This feature, the site's largest, was defined by a long but shallow rectangular depression bordered by two parallel rows of slightly raised soil and rock, sloping slightly eastward. It measured 24.63 by 10.4 m overall and enclosed a space of 256.2 m². Within the structure area at its east end was a smaller but deeper mound/pit feature which measured 5.7 m north-south by 4.5 m east-west. Scattered within and around it were numerous brick fragments and cobbles partially covered in mortar. This mound/pit

feature was obviously a chimney foundation.

The long rectangular depression, clearly the remains of a building, measured 23.8 m long by 8.6 m wide (78 x 28 feet) from the outside of its somewhat slumped north and south edges. The two long ridges of peat and rock covered in moss and lichen had no specific crest. They averaged 30.0 cm wide by 30-50 cm high. The structure's width is 8.3 m based on an approximate edge crest, while from the inside of its raised border it measures 8.0 m. The latter is closest to Cartwright's measurements of 70 by 25 feet (21.4 x 7.6 m).

Close to 10% was excavated ($n=25.0 \text{ m}^2$), the largest sample taken from any feature. The excavation consisted of various combinations of one by one and one by one half metre units placed on a subjective basis at a number of locations within the feature and on its border. The 26 excavation units were placed at a diagonal of about 20° to the structure area's long axis. This slightly diagonal excavation was done in order to avoid overlapping the assumed original rectilinear layout of the building. The excavation strategy was somewhat successful since the main trench cut across the remains of what appears to be a partition wall that separated the kitchen and diningroom.

Seven one by one half metre units were placed at various positions along both sides of the feature's rim in order to investigate stratigraphy. Three of these comprised the north and south ends of the large trench at the feature's east end which measured 11.5 x 0.5 m. The trench was placed to cut across the feature's long east-west axis, thereby providing a continuous profile. The trench was also located here in order to investigate what was assumed to be the kitchen, a potentially artifact rich area. The trench was positioned to run through a gap in the south-east corner of the feature's raised rim or border. The gap suggested a doorway and turned out to be exactly that. The remaining four units were placed along the feature's west and east ends.

The second trench was positioned in order to bisect an approximate two metre diameter pit in the Structure Area 1 east end. This trench, measuring three by one half

metres, paralleled the structure area's long axis and was eventually widened northward along most of its length to a full metre. The enlargement was necessary in order to investigate the pit's stratigraphy.

Units were also located exterior to the feature proper at its extreme east and west ends where foundation remains were largely absent, especially at the west end. The unusually thick vegetation cover here hid the ground surface and any possible foundation remains. The vegetation primarily comprised a low-spreading shrub with flat, linear, pointed leaves that resembled the Canada Yew (*Taxus canadensis* Marsh.), also known as Ground Hemlock (Hosie 1969:110). The vegetation suggested organically enriched soil such as might grow over a midden deposit, which the area turned out to be. A 2.0 x 2.5 m unit was placed here, with a number of shovel tests dug around it.

The relatively thick, west end bush cover contrasted with the more barren east end where the large chimney mound and pit were located. The lack of vegetation also made it possible to discern both a short shallow trench and a slightly raised ridge of peat oriented north-south three metres east of the chimney feature. Along the chimney feature itself four 1.0 x 0.5 m units were placed at its west and south sides and a one metre square at its south-west corner.

The peat ridge east and north of the chimney appeared to be a building footing or border, the trench a drain. The ridge was approximately five metres long, its north-east corner better defined than its south-east. From the north-east corner the peat ridge extended west for approximately three metres and was one metre north of and parallel with the Structure Area I north perimeter. Three one by one half metre excavation units were placed along the ridge at its corners.

A number of shovel tests were also dug throughout the structure area and a soil coring device was frequently used. This stratigraphic coring procedure and the shovel testing were conducted on a non-systematic basis throughout the site.

4.3.2 Structure Area 2

Plate 1.4

This nearly square feature was located approximately 75.0 m north-east of Structure Area 1 and about one and one half metre below it. An area of thick, lush grass and berry bushes clearly marked the perimeter. This border measured approximately 15 x 13 m, enclosing an area of 195 m². The vegetation stood out in contrast to the surrounding shrubs, caribou moss and stunted trees, suggesting organically enriched soil. In that area were a number of randomly spaced clusters of rock and brick alignments within a poorly defined depression which measured 8.0 x 8.0 m. This depression appeared to be structural remains and within its south-east quadrant a one metre unit was excavated, about 0.02% of the feature. Small surface clusters of ceramics and nails marked what appeared to be quite recently disturbed areas within the feature. These finds were collected on a non-systematic basis and their weaker provenience noted during artifact and feature analysis.

4.3.3 Feature 3

Plate 1.5

This roughly circular feature was defined by a concentration of lush grass and surface artifacts located on sloping ground measuring four metres in diameter. It is located 35.0 m southeast of Structure Area 2 and 45.0 m northeast of Structure Area 1. The feature is out of sight and downslope from the latter in a small gully oriented north-south and approximately eight metres above sea level. A one metre square, about 25% of the feature, was excavated in its north half. Surface finds were collected on the feature's southern edge from the rim of a small hole dug prior to the 1986 field season. This apparent archaeological shovel test is attributed to a 1985 site visit by Basque archaeologists. In 1986 local residents who visited Stage Cove mentioned that Basque archaeologists dug the test hole the previous year. Dr. Jose Vera, one of the Basque archaeologists, did not respond to inquiries about this matter.

4.3.4 Structure Area 4

Plate 1.6

This pentagonal feature contrasted with the generally rectangular and square features. The unusual perimeter of rocks and raised earth framed a shallow depression which measured four metres across by less than one half metre deep. It was located approximately 75.0 m north of Structure Area 1 on a bare, slight slope facing north, out of sight of the other features and most of the cove. A patch of lush grass was located outside its rim about four metres west of a small gap in the rim's northeast corner. A one metre square excavated in the southern perimeter and a shovel test dug in the exterior grass patch comprised a six per cent sample. The grass patch proved to be a refuse deposit, the source for most of the small European assemblage, though the feature's unusual shape does not conform to European construction style.

4.3.5 Features 5 and 6

Plate 1.7

Both these shore edge features were defined by artifact concentrations. The former also contained surface and sub-surface architectural materials. Feature 5 was located approximately five metres inland from the shore edge. It was defined by a substantial subsurface concentration of fragmented brick measuring approximately two metres in diameter. A 1.0 x 0.5 m excavation unit was placed in the feature proper and numerous shovel tests were dug in the surrounding area.

Feature 6, a grassy, shore-edge area of slab bedrock and boulder concentrations adjacent to the east edge of Feature 5, measured approximately 30 m north-south by 10 m east-west. Non-systematic surface collection and testing by shovel and probe was also conducted here. This area was especially noteworthy for the few retouched chert flakes and a trade bead found along the shore edge, the only clear evidence of aboriginal presence at the site.

4.4 Diagnostic Artifacts

Tables 1.3, 4.1-4.6

Representative examples of diagnostic artifacts are described, followed by their

catalogue numbers. These numbers correspond to numbers in the Map, Figure, Table and Plate Appendices, with each subsection beginning with a list of the appropriate appendix references.

All Structure Area 1 artifacts were found in the living floor stratum, level 2, unless otherwise indicated. This level was also the main deposition stratum in the west end exterior refuse deposit. Levels 2 and 3 are the main artifact deposition strata for Structure Area 2 and Feature 3 and are listed with the appropriate artifacts where necessary. Ceramics from the Kitchen Group and all the Tobacco Pipe Group artifacts are described in the following chapter since they were studied as dating tools in comparison with the site's documentary record.

4.5 Kitchen Group

n = 393

Map 1.2

Tables 4.1.1.2

4.5.1 Kitchenware

Plates 4.9, 4.28

A bent and twisted copper disc 14.0 cm in diameter by 0.3 cm. thick was found 1.5 m south-west of the Structure Area 1 fireplace and 3.0 m north of and inside the structure's doorway, in what would have been the kitchen (1792 2;24). It is probably the lid of a copper vessel such as a saucepan, pot or kettle (Kauffman 1968:94). Two rivet holes, one with a copper rivet, are 7.8 cm apart on either side of the disc. Both holes probably correspond to the attachment points for a handle. A copper rivet head found in association is the same size as the one in the disc. It is probably the rivet missing from the second hole. A small copper fragment, likely from the disc rim, was located 50 cm south of it. (#1065)

The disc would have fitted a vessel with a mouth diameter of about 14 cm (Kauffman 1968:94). If a lid, its bent, handle-less condition suggests it was damaged beyond repair. Its approximate mid-kitchen provenience suggests it may have been

discarded during abandonment of the house.

Three copper or copper alloy rivets were found in level two of the Structure Area 1 west end exterior. Each short, stubby shank measured between 0.6-0.8 cm long and the diameter of their oversize head was 1.2 cm. The head of a similar looking rivet recovered from the feature's east end was associated with the remains of a copper kettle (Light 1987:32-33). The west end rivets and the many other artifacts clearly dating to the 1770s suggest they were deposited as refuse in a trash dump. (#1065a,#109,#111)

The copper rivets are similar to a popular British type in use into the early 19th century. They are comparable in size and shape with type #163 illustrated in an 1812 British Army nail and hardware catalogue, a ready-made hardware taxonomy (Buggey 1976:93, 117-18). This catalogue was produced in order to standardize nail supply and manufacture at British colonial military posts. The functions for rivet type #163 are not specified but the rivet was probably used in construction and maintenance of machinery and household items.

A thin iron rod or pin with a round shank measuring 9.5 x 0.1 cm was found in level 3 of the Structure Area 1 fireplace south-west corner in a black and somewhat greasy, midden-type matrix. The pin, with the tip of one end clinched or bent over at a right angle, resembles an 18th century British skewer used in roasting meat (Yarwood 1981:57). (#747)

4.5.2 Tableware *Plates 4.28.5.1*

A handle-less, oblong shaped tablespoon bowl measuring 8.6 x 4.3 x 0.1 cm was recovered from inside the Structure Area 1 doorway area. The spoon bowl has a stamped, scallop shell design on its somewhat corroded and discolored exterior surface. Stylistic attributes and documentary research indicated the spoon is silver, an identification confirmed by atomic absorption analysis. The scallop shell would have been stamped into the spoon from a swage with the incised design (Davis 1976:177-78).

This fancy-back or picture-back spoon design was popular in English domestic contexts on both sides of the Atlantic from the mid to late 18th century, especially c.1750-1775 (Hughes 1963:97; Ensko and Wenham 1937:81). The shell motif appears identical to one illustrated in Davis (1976:177). (#470)

A large piece of a knife blade measuring 7.8 x 2.5 x 0.2-0.4 cm was excavated from the Structure Area I west end trash dump. Its proximal end is broken approximately at the haft point and the tapered distal end is snapped short of the point. The blade edge is slightly bevelled and thinner than its back. It is comparable with a knife from Fort Michilimackinac, Class II, Series A, Type 4 dated c.1700-1775 (Stone 1974:267-70). Similar attributes are the 2.5 cm blade width and centred, square-section shaft of the Michilimackinac example, of which there is only a nub on the Stage Cove piece. (#1035)

4.5.3 Pharmaceutical Bottles

Plate 5.1

One aqua-colored bottle base from a slightly disturbed area in Structure Area 2 measured 3.2 cm in diameter and 2.0 cm between its heels. This not quite circular base has a small, well-formed push up in the base, 1.6 cm high. This push up has a conical profile and its rounded heel has been modified by chipping and scouring on one half (Jones and Sullivan 1985:101, 120). The base was apparently a rocker type, imperfectly manufactured and subsequently modified in order to form a flat surface on the heel for better balance (Jones and Sullivan 1985:77, 85-87, 113, 123). (#146)

The full bottle size and shape is difficult to estimate since very little remains of the sides. It is probably a free blown cylindrical vial on the order of 15.0-20.0 cm long (Jones and Sullivan 1985:73, 92-93). Since many of these bottle types were used to store pharmaceutical products, this one may have served that function. Cartwright occasionally acted as a doctor dispensing medicines and bleeding his servants and also employed doctors as part of his servant staff (1792 1:189, 196; 2:2).

4.5.4 Wine Bottles/Case Bottles

Map 4.1

Table 4.2

Plate 5.1

Round, green 'wine' bottle glass sherds were found throughout Structure Area 1, but most of the 76 sherds were concentrated in the east end pit and fireplace. Some sherds have surface fractures and a mottled surface colored in yellowish-brown and reddish-brown. This crazing may be due to burning since most sherds recovered from the fireplace were crazed while most from the east end pit, a possible cellar, were not. (#936)

This crazed glass is not the same as French crizzled or crystalline glass found in small coloured glass or pinkish glass tumblers from mid-18th century sites in North America (McNally 1982:33). The crystalline surface on French crizzled glass is caused by "a glass too rich in alkalis, that is, without sufficient stabilizing oxide to make it insoluble" (McNally 1982:33-37). This permits "sweating of salt" or crizzling on the vessel exterior.

The 25 sherds of round, green, bottle glass from Structure Area 2 are similar to those found throughout the site and resemble 18th century liquor bottle glass (Jones 1986:9-19). The 25 sherds are half what was recovered from Structure Area 1 and just slightly more than the Feature 3 sample (n=22). The Structure Area 2 sherds may reflect alcohol drinking by Cartwright's servants since this feature probably represents a servant household. At least rum, porter and spruce beer were bottled off and drunk at Stage Cove (1792 1:197; 2:116; Townsend 1908:194).

The 22 green bottle glass sherds from Feature 3 are similar to those excavated from the other features. These sherds, coupled with the midden's ceramics, nails and faunal remains suggest the glass was discarded as part of general trash dumping.

Along the bedrock shore edge of Feature 6 a scatter of 44 pieces of 'wine' bottle glass fragments were found, plus one transparent and one crazed piece of glass. Because of the weak provenience of this glass it was not included in the total assemblage count for comparison with South's artifact patterns. The Feature 6 glass is generally similar to that

found in the other features, and the glass is also associated with the retouched glass piece #139 described below. Therefore, use of the Feature 6 area may be contemporaneous with the occupation of the other features.

4.5.5 Unidentified glass

Plate 5.2

A single small piece of melted glass colored a deep duck-egg blue and measuring 1.1 x 1.1 x 0.6 cm, was excavated from Structure Area 2. Its incomplete and altered state prohibits determining its function or artifact class. (#897)

4.6 Architecture Group

(n=1327)

Tables 1.2.1.3

4.6.1 Construction Hardware

Plate 4.10

Two incomplete screws were excavated from the Structure Area 1 west end trash dump. The smaller one measuring 2.9 x 0.4 x 0.35 cm has a short, twisted shank fragment with no visible threads but with a large, circular, somewhat mounded head and a shallow incised groove within. The larger example (#645) has a similar groove down the middle of the head but it has large, coarse threads and a raised, mound-shaped head. (#617, #645)

Four roves, or small, thin metal pieces roughly trapezoidal in shape with a hole punched through at about centre were excavated from Structure Area 1. The unused rove, measuring 1.9 x 1.5 x 0.1 cm (#553), was found in the mortar matrix of the south-west corner of the fireplace while the others came from the feature's west end. These roves may have been used as a device to secure a nail without clinching, as was their documented 19th century use. The nail would be driven through both wood and rove, the latter functioning similar to a lock washer on a metal screw or bolt (John Light, pers.comm., 1987; Light and Unglik 1987:32). Larger rove-like pieces of metal, sometimes called tins and tacks, are used today to secure tar paper on roof and wall exteriors in Labrador and on the Island of Newfoundland.

4.6.2 Door Lock Parts

Plate 4.12

An incomplete, very degraded door lock measuring 10.0 x 8.0 x 1.6 cm was found as a single unit in level two of the Structure Area 1 doorway just outside the feature's southern raised perimeter. The shape and composition of this lock, with its single, one-sided keyhole, suggest it is either a plate stock or a rim lock type (Priess 1979; Martin 1985:190). (#474)

The back plate is attached to the lock frame, perhaps by riveting, while the fragmented front plate has broken away from the lock case. The main or front plate with the keyhole is smaller than the back, and projects forward from it one and one half cm. This housing probably contains the lock wards, but its rusted state did not permit viewing the interior. However, since the key associated with it (#473) is of a ward-lock type, their association suggests use together. The ward projections, or rings within the housing, would have required this key type during use (Priess 1979:72, 94). Sliding bolts, springs and other working mechanisms of the lock are either absent or else contained within its housing.

The loose pieces of iron at the bottom and right side appear to be the detached bottom and side of a rim lock case. A notch in the upper left corner of the lock's back plate resembles that for such a lock, similar to Priess' Category 1 rim lock, common during both the 18th and 19th centuries (1979:18-19, 95, 152). However, it is missing the front cover plate that most rim locks appear to have needed in order to enclose the ward(s) or bolt(s) for locking (Priess 1979:65, 103, 139). Fixing screws and rivet holes in the back plate of the lock for attaching it to a door are also absent.

The lack of fixing screws and rivet holes, if not a factor of corrosion, suggests attachment by mortising, a plate stock lock characteristic (Priess 1979:9, 65). British manufacture of mortise locks appears to have begun during the late 18th century, with the plate stock locks possibly costing less than rim types (Priess 1979:9). This lock type would not need a metal front cover to enclose the mechanisms since part of the wooden

door would have done that, especially if it was set flush into the door rather than surface mounted (Priess 1979:9). A wooden housing would be an advantage over a metal one in damp climates since the latter was more susceptible to corrosion (Priess 1979:9). Cartwright makes no mention of this corrosion factor, though given the damp conditions that prevail in the Strait of Belle Isle he was probably aware of it.

Based on its attributes the lock is probably a plate stock type, either attached to the door surface or set within it. Plate stock locks were used in Britain by the 1720s and common in North America toward the end of the 18th century (Priess 1979:8-9; Streeter 1983:11). The lock offered little security regardless of its method of attachment since lock technology was unsophisticated up until about 1778, when the first British patent for lock improvements was filed (Priess 1979:8). If wards were used in both the key and lock as suggested, this example may have provided slightly more security than locks without them (Priess 1979:72-73). The direction the lock moved by the key action could not be determined due to the absence of the dead or spring bolts.

If the lock was mortised, the door would have been made in two layers, at least around the lock, in order to secure it. Cartwright gives no details on door construction, but double layer doors were a common style in North American frontier settlements during the late 18th century (Light, pers.comm. 1987). Since the lock was found on the east side of the doorway it may have been attached to the door's east side. If so, the lock bolt and any others probably slid to the right. No other lock parts were found elsewhere at the site, though at least the sealers' house had a lock (1792 1:273; 2:485).

4.6.3 Window Glass

Map 4.1

Table 4.2

Plate 5.1

Just over 350 window glass fragments were recovered from Structure Area I, with a little over half from the feature's south-west corner and most of the remainder from the fireplace area. These two concentrations suggest window locations, especially the former, as most glass was on the inside edge of the low ridge marking the feature's

perimeter, the former house wall position. The probable window reflected by this sherd concentration and the second glass cluster near the fireplace are discussed in more detail in Chapter 7.

Little can be said about window location or glass discard in the other features. Only two window glass fragments were recovered from the Structure Area 2 midden deposit and only one piece came from Feature 3.

4.7 Furniture Group

(n=3845)

Tables 1.2,1.3

Plates 4.13,4.28

A small but solid iron latch, measuring 4.6 x 1.6 x 1.4 cm, was excavated from the mid-section of the Structure Area 1 large trench, north of the doorway. Probably cast, this somewhat curved, capital L-shaped latch has a hole in its bulbous end at the top of the L. Perhaps made for a small cupboard door or window, this latch is also curved and pointed on the outer edge of the lower, right angle bend. The hole may be for a pin or bolt attachment to a frame, or it may be ornamental feature as in some iron latch bars from Fort Michilimackinac (Stone 1974:235, 243). (#1041)

4.7.1 Lamp glass

(n=3780)

Tables 1.1,1.3,4.2

Plate 4.13

The glass is very thin and fragile with bubbles and is generally coloured light green to aqua. A few cylindrical pieces and a few relatively large, curved pieces were recovered, but much of this glass was flat or only slightly-curved, fingernail-size fragments. Given the shape of the diagnostic pieces, cylindrical tapering and curved bulbous, and their similarity in appearance to the numerous small fragments, there can be little doubt all the sherds represent the same kind of vessel. The smooth exterior and interior surfaces on both the tapering and bulbous pieces, and the absence of a mold mark suggests the vessels were made from one piece of free-blown glass (Thuro 1979:27).

When complete the vessels appear to have been on the order of 10-12 cm in length. The bulbous section appears to have had a maximum diameter of approximately 10 cm. This size interpretation is based on the largest curved piece, about 20% of its estimated complete size, and the few long cylindrical tapering pieces, about 80% of this section's estimated complete size. All of these cylindrical pieces are broken at both ends, the smallest tapering to just under two centimetres in diameter (0.75 inches) at its narrow end. The bulbous shape of the large curved piece suggests it was shaped like an elongated onion when complete, though it may have been spheroid. No pieces could be joined however, so the complete shape is unknown.

A whale-oil lamp commonly used in mid to late 18th century New England is the glass vessel that appears most similar to that represented by the Stage Cove sherds (Woodside 1975:49). The shape of this lamp was the inverse of early 19th century lamps with their narrow tops and bulbous fonts, attached to glass, metal or ceramic bases. The New England whale oil lamp was shaped with a narrow bottom and a bulbous top in order to accommodate its special burner, made of cork and tin or cork and pewter. Its narrow bottom fitted into a solid, circular glass base. This type of lamp also helps explain why no base sherds were recovered as the base would have been the narrow end of a cone truncated near its tip where it joined the solid glass, while the top was wide and open to hold the burner. Further, 17th century New England lamps burnt fish liver oil prior to whale oil (Hayward 1962:15). Given this versatility in fuel type, similar lamps burning seal oil a century later in Labrador is not surprising.

Despite the large sherd quantity, only a few lamps may be represented because of the fragility of the glass and probable easy breakage. The glass fragments were often recovered in clusters, which may reflect the discard of one or more lamps. The intrinsic fragility of the glass would have complicated repair and recycling. It would be expected then that most glass would be recovered from middens or the location of use. In fact, the majority of the glass was recovered from the west end midden of Cartwright's house,

though some was recovered in the much smaller sample from Structure Area 2, a probable servants quarters.

Most of the remaining glass came from the feature's living floor or the fireplace area. The glass indicates lamp use in Cartwright's house and suggests some of the seal oil produced at the site was being used there. Cartwright used seal oil for lamp fuel at his Lodge Bay post and probably did at Stage Cove, though its use there is not recorded (1792 I:68). Lamp glass sherds comprise the most abundant glass category from Structure Area 2 as well (n=64). This latter sample, though relatively small, also suggests lamp use.

Lamp glass or parts are not specifically mentioned by South as Furniture Group artifacts (1977b:95). But since lamps would have generally served an interior lighting function like Furniture Group candle holders, the same classification seemed appropriate.

4.8 Arms Group

(n=128)

4.8.1 Lead shot, musketballs

(n=134)

Tables 4.3-4.5

Plates 4.14,4.15

Four pieces of shot preform with attached sprue, measuring 1.0-2.2 cm x 0.8-1.0 cm x 0.6-0.7 cm, were recovered from Structure Area 1 approximately midway between the fireplace and the inside of the doorway. The sprue is probably residue from the gang mould used in their manufacture. Cast shot usually have a seam or cut-off marks reflecting the mould used in their manufacture (Faulkner 1986:84). This seam was absent on most of the recovered shot. (lot #1027)

The T shaped lead pieces at one end of the preforms are the remainder of the lead channel which carried the molten lead to the shot/bullet mould (Faulkner 1986:84-86). The lead stringer would be broken or filed off from each roughly cylindrical preform and the shot filed round for use (Grimm 1970:74, 104-06). The sprue shape suggests a plier-

type gang mould that would have required pliers or tongs to hold it when in use (Brown 1980:279). The iron tong recovered from the doorway area (#1028) could have performed this function as it resembles a late 18th century type used in general blacksmithing (Brown 1980:248).

The 11 shot recovered from Structure Area 2 all have a slightly dimpled surface, a characteristic of manufacture via the Rupert Process (Brown 1980:64-65). This process, named after a 17th century German prince, required dropping molten lead through a heated colander into a container of water. Contact between the water and the molten shot probably produces this shot type's characteristic surface dimple (Faulkner 1986:84-86), noticeable on most Stage Cove shot.

It is not clear if shot were manufactured at Structure Area 2 as no sprue were recovered, but the feature did produce more pieces of lead scrap than Structure Area 1. This material may reflect both source material and by-products of lead working. Yet in terms of artifact density, the 11 shot from Structure Area 2 are still noteworthy. With only one m excavated this feature produced almost the same number of shot as Structure Area 1 (n=14) with 25 m excavated. The substantial difference in excavation area size however, does not permit fair comparisons between the two features, especially since the relatively large sample from Area 2 was obtained from a refuse deposit.

The largest site sample of shot and the site's only musket balls came from Feature 3, 90 and three, respectively. Seventy-nine shot appear to have been manufactured by the Rupert Process compared with only 11 cast. This large ammunition count might be expected given the feature also produced the largest sample of faunal remains.

(#60,#77,#78,lot #73)

4.8.2 Gunflints (n=10) Table 4.5 Plates 4.10, 4.16

Based on clustering of length and width dimensions the five largest gunflints were

relatively complete, though not in pristine condition. Four of these ranged between 24.0-31.0 mm wide, while three cluster between 28.0-31.0 mm. These are comparable to dimensions of spall flints Series C, Type 1, Varieties a and b from the 18th century British occupation of Fort Michilimackinac, Michigan (Stone 1974:255-57). Further, the dimensional means and square shape of Stone's Variety b flints (1974:258) are nearly identical to the means of the Stage Cove flints. Smaller gunflint pieces were also recovered from the Structure Area 1 fireplace area, from just outside the doorway, and from the Structure Area 2 and Feature 3 refuse deposits. (#145,#53)

Two of the larger flints came from the unit in the Structure Area 1 exterior west end midden, one from the unit in the Structure Area 2 refuse deposit (n=3) and two from Feature 3. These are spall gunflints, flaked from a flint nodule or pebble, the bed "slightly concave to flat in longitudinal cross section" (Stone 1974:255, 257). This type often has negative flake scars from prior flint production and the heel and sides are retouched. Spall gunflints "generally exhibit a smooth, slightly convex face and a flat bed, and are thickest at the back edge tapering to the thin front edge" (Martin 1985:194-95). This description fits the five larger, wedge-shaped flints. (#7,#161,#203,#297,#1031)

In terms of dating flint styles, spall gunflints appear to have been used in North America from the mid-17th century up until about 1770, when they began to be replaced by blade-type flints (Witthoft 1966; Hamilton 1964; 1968). Gunflint colour is apparently not a good dating tool because of long manufacture periods using the same source material, but colour can indicate cultural affiliation. For example, gunflints associated with British sites in North America are often dark, such as brown, black and grey (Martin 1985:193-94). In contrast, French gunflints, particularly those from the Seine and Cher River valleys, are light to yellowish-brown (Stone 1974:257-61; Brown 1980:79, 275). Except for the single light brown Stage Cove flint the rest are coloured grey-black or grey-brown, as with British gunflints, especially those from Fort Michilimackinac.

4.8.2.1 Gun parts

Cartwright documents the use and manufacture of gun parts, but only one example was recovered, a bullet worm found on the east side of the east end pit in Structure Area 1 (1792 1:40). These were originally used to clean musket barrels, especially to remove wadding following a misfire (Martin 1985:202). The distal worm end of this corkscrew-like iron fragment, 1.3 cm in diameter, is hollow and jagged with two points, as in a truncated corkscrew. The solid, somewhat rounded proximal end has a roughly squared shank 4.2 cm long x 0.75 cm in diameter. Its degraded condition restricts complete identification but it resembles three different 18th-19th century American bullet worm types (Brown 1980:51, 246). (#294)

Also recovered from Structure Area 2 were two rusted iron pieces, measuring 1.6-2.0 x 0.7-0.8 x 0.5-0.8 cm. Each was comprised of two sides joined by a rivet. Since both contract in the middle and expand at the ends they vaguely resemble small chain links, perhaps from a musket cleaning kit. If so, they may have been used to secure a vent pick or priming wire to a tool belt or a kit bag (Brown 1980:275).

4.8.3 Arms Group discussion

Map 1.2

Tables 4.3-4.5

4.8.3.1. Balls, shot and sprue

The Arms Group artifacts indicate the importance of musketry materials to the Europeans at Stage Cove. Some lead shot were being cast using gang moulds, but most appear to have been made by the Rupert Process. The same size shot could be produced by both methods. Shot manufacture may have occurred only in Structure Area 1, the single location for lead sprue. It was found within an approximate three metre radius of the fireplace, a place suitable for melting lead (Brown 1980:64). Structure Area 2 had the only other probable fireplace remains, defined by a few bricks and large, square cobbles scattered around its eastern half.

The Stage Cove shot dimensions clustered around five mm in diameter. Shot that

were five mm or less were designated very small while those a bit larger than five mm were designated small. In terms of standardized American calibre measurement five mm is approximately one quarter inch, which is the equivalent of approximately .255 calibre (Brown 1980:392). Calibre is the diameter of musket and pistol shot or ball measured in inches (Brown 1980:392). Only one calibre, .250, is smaller (Brown 1980:392). Since shot size is also correlated with weapon barrel bores, shot of .255 calibre would be fired from a gun with a 270 bore (Brown 1980:51-65, 392, 397; Martin 1985:190). This small ammunition, often called "bird shot," is assumed to have been used in fowling pieces (Faulkner 1986:84). Cartwright appears to have been using this type of shot when he refers to "goose" and "mould" shot (1792 I:126, 200).

The three musket balls recovered, all from Feature 3, had diameters which clustered slightly above and below one and one half cm, or approximately .625 inches. The calibre sizes closest to this diameter are .622 and .627, and their musket barrel bore sizes are 22 and 21, respectively (Brown 1980:392). Bore size 22 and its corresponding .622 calibre match those of mid-18th century Jaeger hunting rifles (Brown 1980:339), one of which was used by Cartwright at Stage Cove.

The areal distribution of lead shot in Structure Area 1 (n=14) was not as great as for most of the other artifact classes. Shot was recovered only from the feature's east half, with the doorway having slightly more than other areas. The absence of lead shot from the west half is probably a factor of the small sample, but it might also be expected since bedrooms appear to have comprised most of that area (1792 2:24).

The shot quantities from Structure Areas 2 and 1, 11 and 14 respectively, seem noteworthy given the major difference in excavation area per feature. The former's relatively high shot count may reflect the shooting habits of the servants who presumably occupied this household. Cartwright noted that Newfoundlanders used considerably more musket balls per charge than he did. In his opinion this practice "so over weights the powder, that it loses great part of its effect" (1792 I:14). He also noted that few of his

servants were as skilled in shooting as himself (1792 2:42-43).

Given this lack of musket skill and apparent ammunition wastage, it might be expected that a refuse deposit for a servant household would contain a higher proportion of used ammunition than his own. Some ammunition would probably have been left at butchering sites, and some may have been reused if not too deformed. Yet if Cartwright's evaluation of servant hunting is accurate, game killed by Newfoundland servants would have contained a larger number of shot than necessary. Servants who were poor marksmen would also have used an excessive amount of ammunition to bring down gamebirds and mammals.

Musketballs were also a trade item exchanged with at least the Labrador Innu for furs and country food provisions (1792 2:21). Evidence for this trade was not expected since the activity usually took place off-site, and, correspondingly, few musketballs were found. At least some of those recovered may have been manufactured at Stage Cove, where Cartwright had single "bullet moulds" (1792 1:126; 2:60).

It seems clear that the primary function of balls and shot was hunting wild game. For example, bird bone comprised the majority of the faunal sample from Cartwright's household and bird shot was the most abundant ammunition type. Bird hunting is well documented and much bird bone was recovered from the fireplace and west end midden, probable primary and secondary refuse deposits, respectively. The archaeological and documentary records coincide in this case, though the records differ in the case of large mammals documented as a major food source.

The musket balls were associated with a few medium to large size domesticated mammal elements, not with large mammal bone from native species. This result is especially puzzling in the case of caribou, given its apparent importance in provisioning. Bone from this species may have been discarded or utilised in a different manner, or the lack of caribou and other large mammal bone may reflect kill-site butchering followed by transport to Stage Cove of only select caribou parts.

4.8.3.2 Gunflints

Table 4.5

Plates 4.10, 4.16

The formal attributes of the gunflints, their provenience and documented use were compared with published gunflint data in order to investigate both weapon type and usewear characteristics. Gunflints were made in sizes that corresponded to weapon types, but there are few empirical data demonstrating size/weapon correlations (Hamilton 1964; 1968). They may have been used for up to 35 strikes in a flintlock before they were inverted for further use, though flints used in weapons of the military were generally replaced after 20 strikes (Brown 1980:79-80). Since heavy use and resharpening of gunflints shortens them, the larger Stage Cove flints were considered less used and more complete than the smaller ones.

There appears to have been a preference at Stage Cove for spall type flints, a preference which could have been based on function or ease of supply. Attributes such as a relatively large size and square shape characteristic of spall flints (Stone 1974:255-63) are also characteristic of the three more complete Stage Cove flints. Further, the width dimensions of the three flints cluster relatively tightly and are comparable to the spall type. These relatively large spall type flints suggest use with muskets and not fowling pieces or rifles as the latter two weapons apparently take a smaller, blade-type flint (Martin 1985:193).

Since gunflints are shortened during use and resharpening, their length, not width, appears to be the more important dimension for determining function, usewear and weapon type (Stone 1974:249). Regression formulas have been used in order to predict original gunflint length, and therefore the amount of usewear on spent flints (Stone 1974:249-59). However, the small sample precluded regression formula use here.

In lieu of statistical analysis the refuse deposit proveniences of the grey-black, spall flints indicates they were discarded as either spent or of poor quality. No cores were recovered so gunflint manufacture may not have taken place at the site. A one to one

ratio of more complete to spent gunflints and flakes characterises the sample.

Two small, grey-brown chert flakes may be trimming flakes removed during gunflint sharpening, or when used with a strike-a-light (Martin 1985:194). The one from the inside of the Structure Area 1 doorway (#145) has a bulb of percussion visible on its ventral surface and ripples of percussion visible on its dorsal surface. The colour of the material vaguely resembles a gunflint recovered from Feature 3 and the flake is stained with what appears to be rust. The second (#303) was recovered from the fireplace area, a provenience which suggests removal during striking of a fire steel. The flakes and what appear to be foreshortened flints suggest resharpening occurred, a practice which would seem in keeping at a site where considerable musket use is documented.

Lack of musket skill of Cartwright's servants may have contributed to flint damage, wear and subsequent discard (Townsend 1983:3-5). Like many civilians during the 18th century, few if any of his staff appear to have been skilled with muskets (1792 2:2, 42-43, 132). Flint damage could have resulted from improper positioning in cockjaws, though poor quality could also have led to easy damage (Brown 1980:79). The Stage Cove Europeans, like many other North American fur traders, may have been using "inferior quality gunflints" that fractured all too often (Townsend 1983:5). French gunflints were considered the best quality during the 18th century compared with other European flints (Brown 1980:79).

4.9 Clothing Group

(n=187)

Tables 1.1,1.2

4.9.1 Buttons

Plates 4.17,4.18

Structure Area 1 west end exterior

A small, circular piece of faceted transparent glass measuring 1.1 x 0.7 cm was recovered from this midden area. It is probably the top or core of a button or cufflink which would have sat within or on a metal or bone base, with an eye attached on the

underside of the base (Grimm 1970:59, 61). In this method of attachment the pointed side of this piece would be dorsal and the flat side ventral. (#25)

Two circular, leather buttons were also recovered, each with two holes punched or cut through them (1.4 x .40/1.2 x .30 cm.). Both are dull brown with roughened surfaces and degraded edges. (#107,#117)

Structure Area 2

A decorated metal button, apparently cast and probably made of iron, was found in this feature. Measuring 1.5 x 0.1 cm, this thin, flat, circular button has eight small maple leaf's and a checked or cross-hatched pattern on its topside or dorsal surface. The latter geometric design covers most of the button's centre, while the leaves are evenly spaced around it on the same surface, not the edge. The leaves are oriented with leaf stock pointing inward towards the button midpoint. There is an attachment eye on the inside or ventral surface which has probably been drilled out (Grimm 1970:59, 61, 71). (#118)

4.9.2 Buckles *Plates 4.13,4.28*

A rectangular brass shoe buckle, measuring 6.7 x 5.3 x 0.4 cm, came from level three at the west end of the Structure Area 1 east end pit. It is convex in cross-section in order to fit the contour of the shoe, and there is also a short incised line oriented with the long axis of the buckle on the concave side of its face. The function of the line is unknown, but according to Grimm it would have been added after the buckle was cast (1970:52, 56-57). It is positioned above the thick and wide pin terminal, where both the broken upper and lower forked tongues would swivel if complete. The buckle is of a style dated to c.1760 (Grimm 1970:48). (#148)

Five different pieces of iron shoe buckle tongue parts were found in the Structure Area 1 west end trash dump, approximately one m north-east of the shoe described below. The largest and most diagnostic piece, measuring 4.2 x 0.2 x 0.2 cm, is either the pin and base of the tongue or the upper forked tongue of the buckle. The other pieces are

from either a lower or upper forked tongue (Grimm 1970:48, 52). The part of the shoe's latchet or quarter strap where a buckle would attach is absent, and the pin length of this buckle's upper tongue is incomplete. Therefore it cannot be determined if the buckle to which the tongue was attached is wide enough to accommodate the shoe's latchet strap section. (lot #628)

A degraded, roughly L shaped piece of shoe buckle, measuring 2.25 x 1.2 x 0.25 cm, was also recovered from Structure Area 2. Made of iron and perhaps brass or copper, it is either the upper or lower forked tongue of the buckle. The long side represents either the buckle frame or the swivel pin of a forked tongue, and the short end probably part of the tongue prong (Grimm 1970:48, 52).

4.9.3 Shoes

Plates 4.19, 4.20

An incomplete leather shoe, medium brown in colour and measuring 26.4 x 10.7 x 0.9 cm was found in the Structure Area I midden, along with a detached heel measuring 7.0 x 6.2 x 1.5 cm. A separate piece of cut leather with stitch holes was also found with them. Since no stitch holes for a seam are visible on the remainder of the shoe's latchet or quarter strap, it appears to have been cut rather than split away from the quarter. Similarly, the vamp or top of the shoe has been cut such that only the toe remains. The top of the heel is more degraded and fragmentary than the bottom so it is difficult to determine its parts. The four layers of leather visible are connected with small tacks, not hob nails. From bottom to top the heel layers probably correspond to the heel surface, a lift, a heel extension, a split lift and a rand (Gullov and Kapel 1979:168-73). The stitch holes and curve of the separate leather piece indicate that it is probably a stiffener that fit in the heel seat seam (Swann, pers.comm., 1987).

The shape of the round toe is common with working and or military shoes and boots in the late 18th century, though perhaps no later than 1770 and possibly as early as 1760 (Swann, pers.comm., 1987; Swann 1982:24; Stephen R. Davis, pers.comm, 1987). The latchet or quarter strap for fastening shoes with a buckle went out of fashion in European

shoes c.1790 because of the influence of the French Revolution. It was replaced with the simpler tie by the mid-1790s (Swann, pers.comm., 1987). Despite the demise of shoe buckle use in Europe c.1790, personnel in the British Navy continued using them after that date (Swann, pers.comm., 1987). Therefore, this shoe style indicates a probable date range of c.1760-1790, especially in the early part of this period. (#1066)

The manner in which the shoe vamp has been cut and the absence of an attached heel suggests that the shoe is a slip-on type or slipper, two types of European footwear often found in shipwrecks or sites known for their shipping activity. Heels with tacks or nails were apparently not needed or wanted on board a ship, and long voyages apparently encouraged conservation and recycling of footwear (Swann, pers.comm., 1987). The relative isolation of Stage Cove may have encouraged a similar process of conservation and recycling.

A piece of light brown, worked leather was also recovered from this feature. Its irregular shape, measuring 21.8 x 9.0-9.9 x 0.4 cm suggests it may have been cut from a pattern with dog-leg seams in mind. Therefore it may have been attached to, or removed from, another leather piece. Its step-like bends and curves vaguely resemble the quarter or side of a boot or shoe (Grimm 1970:110). (#1067)

Two additional leather pieces were also found in the feature's interior, one the smaller from the doorway and the larger at the north end of the main north-south trench. This distinctive yellowish grey piece vaguely resembles the bends and curves of a shoe quarter, though there is no evidence of cutting or stitching (Grimm 1970:110).

(#1068,#1069)

4.9.4 Glass Beads

(n=150)

Map 1.2

Table 4.6

Plate 4.22

All of the beads are described using the bead typology developed by Kidd and Kidd (1970). This classification system, modified by Karklins (pers.comm., 1986), is based on

type of bead manufacture and style.

4.9.4.1 Drawn beads

Named after their manufacturing process in which a molten glass tube is drawn out and then cut, all of these beads had comparative examples in the Kidd classification scheme (Kidd and Kidd 1970:47-49). Type IIa7 is a circular bead, opaque and black, but with transparent rose wine on the thin edges. Type IIa11 is a somewhat rounded, barrel-shaped bead that is translucent and oyster white. These two bead types are very small and are sometimes called seed beads. Type IIa12 is circular, translucent and oyster white. Type IIa56 is circular, transparent and bright navy blue. Type IIa59 is circular, transparent and rose wine. The last type of drawn bead, type IIIa3 is tubular, has an opaque redwood outer layer and a transparent apple green core with well rounded ends. Most of the beads are not good dating tools as their periods of manufacture and use cover too large a time period. The distinctive type IIIa3 is the exception as it is indicative of a late-18th to early 19th century context (Karklins, pers.comm., 1986). (lots #55,#57,#1052,#1053)

4.9.4.2 Mould-pressed beads

(*n=4*)

These beads were not listed in the typology developed by Kidd and Kidd (1970) and were therefore designated as a new, mould-pressed type by Karklins:

Flattened-round; ellipsoidal cross-section; circular top view; a distinct mould mark encircles the perimeter; the perforation is in the same plane as the mould mark but is offset from it, i.e. the perforation occupies one hemisphere only; a slight seam perpendicular to the perforation and parallel to it is visible in the glass in this hemisphere.

Examples of type MP I were found in the doorway and west end refuse deposit of Structure Area 1 and in Feature 6 on the bedrock shore at its landward edge from which it appears to have eroded. (#1051,#115)

Type MP II (#1055), found in the west end midden of Structure Area 1, has

an "opaque white body decorated with splotches of various colors: transparent scarlet, transparent apple green, transparent rose wine and opaque bright Dutch blue" (Karklins 1986).

4.9.5 Glass bead discussion

Maps 1.1, 1.2

Table 1.3

South's (1977b) artifact taxonomy with its Group/Class categories can often confuse or hide potential artifact functions, and consequently requires careful use. The site archaeological and documentary records indicate that beads, like most artifacts, functioned in a number of contexts, moving along what could be termed a usage pathway. In the context of a contact site they were used as a trade good, yet for the Inuit they functioned as clothing adornment. Following South (1977b), beads were classified as a Clothing Group artifact.

In terms of functional analysis, glass beads functioned in both a "technomic" and a "socio-technic" sense (Binford 1962:219). In the first instance they were used as a tool or instrument and in the second as an object which articulated people "into cohesive groups capable of efficiently maintaining themselves and...manipulating the technology" (Binford 1962:219). They would also have functioned in an "ideo-technic" sense with symbolic meaning and an ability to enculturate participants in the Inuit social system (Binford 1962:219-20). The technomic and socio-technic functions will be addressed first.

Comparisons with other beads from dated sites are restricted since the mould-pressed beads are unique and the drawn seed beads so common. But both types at least corroborate the documented presence of aboriginal people. The type IIIa3 drawn bead dates to the late 18th century (Karklins, pers. comm., 1986), while the rest of the drawn beads are closely associated with European artifacts clearly dated to the 1770s.

Trading beads to the Inuit appears to have been part of the general British pacification campaign in southern Labrador. Cartwright was part of this campaign as

well as a trader who employed Labrador aboriginal people, some of whom he may have paid in beads. He documents trading beads with Inuit at Cape St. Charles, though not at Stage Cove (1792 1:142-46). However, these beads may have been used and lost by the few Inuit that Cartwright employed as servants (1792 1:281; 2:9). Their work would probably have taken them into his house and around the Feature 6 area, a possible stage location.

In terms of the bead function in an ideo-technic sense (Binford 1962:219-20), this study does not have the scope to address it with much confidence. All of the drawn beads were recovered from a midden and the mould-pressed ones were found in house features and shore-edge activity areas. The drawn beads may have arrived in the midden as a result of being swept off a floor or by discard of a beaded garment. Yet, in terms of popularity, the marked distribution of the beads suggests the drawn ones may have been less popular than mould-pressed ones.

Up to the late 1760s at least (Taylor 1972:140), Inuit clearly valued beads as an exchange commodity, which they traded with Cartwright (1792 1:154). In other words this value, in both an economic and use sense, reflects the popularity of beads in general and probably some bead styles in particular. Given this popularity, beads recovered from house features and activity areas suggests Inuit may have been responsible for their deposition. In contrast, the recovery of all the drawn beads from a refuse area suggests European were responsible. If so, this situation may reflect this bead style's unpopularity with the Inuit during the 1770s.

4.10 Personal Group

(n=1)
Plate 4.12

4.10.1 Keys

A heavy iron ward-lock key with the bit and nose of its shank severely degraded and measuring 9.5 x 3.5 x 0.7 cm, was recovered in the doorway of Structure Area 1. The

frame and slots of the blade correspond to the wards or projections in a key-hole and/or the door lock case (Priess 1979:72-73, 144; Martin 1985:213). The key's bow or finger hold is D-shaped, not circular. (#473)

According to Stone's Fort Michilimackinac key classification this is a Series B, Type 1, with a solid shank extending beyond the blade or distal end projection which moves the lock bolt(s) (Stone 1974:225-29). The shank extension was noted during excavation, but was so degraded it did not survive cataloguing and conservation. The key appears to further correspond to Stone's Variety a which has notches in the distal and proximal blade edges with a flaring or widening bottom edge (Stone 1974:227-33).

The key was found less than two m north of a door lock at the same level. This close association, along with their reasonably good fit, indicates the two were probably used together. Series B, Type 1 keys from Fort Michilimackinac have also been interpreted as probable door lock keys, dating to the fort's mid to late 18th century British occupation (Stone 1974:229).

4.11 Activities Group

(n=126)

Maps 1.2

Table 1.3

4.11.1 Construction tools

Plates 4.10, 4.28

A drill bit measuring 7.9 x 2.1 x 0.6 cm was found in the Structure Area I west end exterior midden. It has a rectangular shank and a slightly concave, wedge-shape, leister-like point with three stubby, evenly spaced tips (Light, pers. comm. June 1987). A second, highly similar bit measuring 8.0 x 2.2 x 0.9 cm was found nearly adjacent. The proximal finished end of their shanks would have been hafted into the cuff of a brace, the distal end of a bitstock or hand-driven drill (Brown 1980:245). Comparable bits, at least one of which was made of steel, were recovered from Fort Michilimackinac, Michigan (Stone 1974:298, 303). (#556, #1038)

Iron bitstocks using bits like these were developed c. 1720 and were used up to the mid-1770s at least (Brown 1980:245). They had an elbow-shaped handgrip which "freely rotated around a button-head palm rest, though the chuck and the bit were stationary" (Brown 1980:245). In a bitstock these bits could have been used for a variety of drilling functions in carpentry, coopering and gunsmithing, such as musket stock repair. Cartwright records one incident when one of his musket stocks needed repair after he broke it while striking a sled dog (1792 1:184).

Associated with the above bits was another possible drill part measuring 13.1 x 0.7 cm. This piece of relatively long, thin iron rod with a round shank had one end split down the middle for approximately one cm. Part of the split end is absent and the remainder is U-shaped in cross-section. The other end is larger and rounded as in a nail head, but is too rusted to enable close identification. This piece somewhat resembles the rods or pins used to attach the button-head of a bitstock or hand-driven drill to its handgrip (Brown 1980:245). (#679)

Two other possible drill bit pieces, found approximately a metre north of #556 and #1038 above, measured 2.9 x 1.3 x 0.45 cm and 3.6 x 1.5 x 0.8 cm, respectively. The smaller one had a somewhat squared end while the opposite thinner end flares out in a V shape. The proximal end of this piece appears snapped or broken while that of the larger item appears complete. Their shape, size and proximity to the other bits suggests they may have been bits or blades for a drill or scraping tool. Alternatively, they may be the distal ends of large nails or spikes with chisel-type points.

A solid piece of iron, measuring 4.8 x 2.5 x 1.3 cm and shaped vaguely like the claw end of a claw hammer, was recovered from the upper half of the Structure Area 1 east end pit. This degraded piece is broken at both ends and split down the middle for approximately one third its length. In size and shape it resembles both the distal end of a nail puller recovered from Fort Michilimackinac, as well as part of a frame pitsaw blade clamp of a style used in New England during the mid-18th century (Martin 1985:218-19;

Sloane 1976:71). (#1040)

An incomplete iron claw hammer head, measuring 8.4 x 4.6 x 2.9 cm and found in association with nail fragments, was recovered from Feature 3. The head is missing its hammering knob or head part as it is broken along the short axis of the head slot where it would have been hafted. The hammer claws are relatively short and appear worn since they are slightly chipped at their outer edges. Although the head is incomplete it appears that the part forward of the break is slightly thicker than the area immediately behind the broken hafting slot. Hammers that have a slight bulge at the hafting slot and which narrow slightly toward their claws are stylistic attributes dated in New England to c. 1760-early 1800s (Sloane 1976:23). (#471)

4.11.2 Farm tools

Plates 4.10, 4.24, 4.26, 4.28

Artifacts which appeared to fit this category of South's (1977b) typology included two pieces or halves of the neck or shank of an iron shovel blade (Light, pers. comm. 1987). They were found approximately 40 cm apart in the Structure Area 1 west end exterior midden. Long, narrow and concave with three evenly spaced holes along the midline, these pieces measured 10.5 x 3.2 x 0.15 cm and 7.3 x 3.7 x 0.1 cm, respectively. The pieces form most if not all of the haft in which the wooden handle would fit, secured by nails driven through it (Noël Hume 1970:275; Grimm 1970:89). (#554, #555)

Two short, narrow concave iron pieces found together in the same area as above, measured 7.0 x 2.2 x 0.4 cm and 6.0 x 1.3 x 0.3 cm, respectively. Triangular in shape, they resemble the shovel blade neck fragments above, but are smaller and narrower and have no holes for screw or nail hafting requirements. They are probably two parts of the hafting neck of a tool. (#1036)

A long, narrow iron tong, measuring 42.2 x 2.5-5.4 x 1.1 cm, was recovered approximately one and one half m inside the Structure Area 1 doorway at the south end of the large trench. It appears to be half of a pair of hammer tongs used in blacksmithing

and lead shot man (Grimm 1970:248). The small, rectangular tong blade is generally aligned with the cylindrical handle, as with a pair of scissors. But the blade is rotated 90° to the handle so that in use it would clamp not cut. The iron swivel at the junction point of blade and handle is rusted solid. (#1028)

A large piece of an iron axe head, measuring 10.3 x 8.3 x 1.0 cm, was excavated from Structure Area 2. The head, probably from a folded strap axe has a break at the edge of one half of the axe's poll or butt (Light, pers.comm.,1987). If complete the axe would have had a bit inserted between the two folded halves where they meet at the end opposite the poll (Light 1987:22-24; Sloane 1976:12-13). (#464a)

4.11.3 Storage items *Plates 4.23-4.25, 4.28*

Six small pieces of narrow, broken band iron of various lengths were recovered from disturbed areas along the south side of the Structure Area 1 east end pit. Their broken ends indicate they were once part of a larger piece, perhaps a barrel hoop or chest lid and edge fittings. (#464B,C,E-G,#466C)

A small, narrow V shape grooved piece of iron, measuring 8.7 x 1.1 x 0.6 cm, was found in level three in the south-west corner of the fireplace. Broken at both ends and triangular in cross-section, it may be part of a storage chest lid or edge fitting. (#847)

A long, narrow and rectangular piece of iron, measuring 42.0 x 3.5 x 0.2 cm, was found closely associated with the door lock in the Structure Area 1 doorway. It resembles a piece of a barrel hoop, though it has no rivets or holes. Its doorway association suggests use as a part of a strap hinge or reinforcing bar for a door (Grimm 1970:95). (#1029)

A long, narrow piece of iron, measuring 23.7 x 2.7 x 0.4 cm, is probably a barrel hoop fragment. Rectangular in shape and broken at both ends, it was found in the Structure Area 1 west end exterior midden. At least six similar pieces of various lengths were found with this example, some of which had either rivets, holes or both along their

length. The overall appearance of the piece and its general similarity to the others suggests it is part of a barrel hoop (Light, pers.comm. 1987). The iron strapping also resembles storage chest edge and lid fittings (Gullov and Kapel 1979:106). (#1042)

A semi-circular shaped piece of degraded oak with a small hole in one end, measuring 34.0 x 10.5 x 0.5 cm, was recovered from the mid-section of the large trench in the east end of Structure Area 1. This oak piece, curved in a stubby, semi-circular shape and with wood grain orientation along its long axis, may be an end part of a small barrel or perhaps a bucket. If this piece is a barrel end, it may be a head cant with a sample hole (Ross 1985:7; Grimm 1970:90). It is not clear if the hole has been drilled or punched for a particular use or if it is from an absent knot. Barrels, casks, pails and tubs were made by the Stage Cove cooper for storing fish, seal oil, venison and rum, though their size and storage location is not recorded (1792 1:215; 2:13, 28). The provenience of the piece appears to be the border between the documented kitchen and diningroom. (#1070)

Eight pieces of band iron of various lengths were recovered from a small disturbed area within Structure Area 2, approximately three metres west of the feature's excavation unit. The largest piece, measuring 11.7 x 2.8 x 0.15-0.25 cm, is rectangular in shape with two slanted corners, probably cut. Some pieces have rivets or holes and all are long and narrow with broken ends. These attributes suggest the pieces were once part of a larger item, perhaps a barrel hoop, or chest lid and edge fittings (Light, pers.comm. June 1987; Gullov and Kapel 1979: 106). (#462A,B,#464B,C,E-G,#466C)

The band iron was recovered in association with a cluster of nails, nail fragments and other similar pieces of iron strapping with a rivets and punched holes. A few additional clusters of similar iron strap fragments (n=50) were found at surface in disturbed areas within the feature.

4.11.4 Aboriginal artifacts

Plate 4.27

A thin retouched chert flake, measuring 1.8 x 1.2 x 0.3 cm, was found in Feature 6 on the landward edge of a section of the bedrock shore. This yellowish-brown flake with splotches of dull red is triangular in outline and wedge-shaped in cross-section. It is retouched on its two bevelled edges and along its distinct pointed end. The opposite bevelled end is steeply retouched on the dorsal surface and the thin long side is retouched on the ventral surface. At its thickest part the slightly curving wedge is not retouched, but forms a right angle with the smooth, flat dorsal surface. The smooth, sloping ventral surface is at approximately 45° to this back edge. The piece has a worked point and various retouched surfaces but lacks a distinct bulb of percussion. (#113)

Its wedge shape and lack of percussion bulb suggests it may be a gunflint flake, but its bifacial retouch and association with a bead and retouched glass piece described below suggests use by Labrador aboriginal people (Martin 1985:194-95). The pointed end resembles a graver or awl, the short bevelled and retouched end opposite a scraper, while the long retouched side may have been used as a knife.

A bifacially flaked green bottle glass piece, measuring 5.2 x 2.4 x 0.9 cm, was also found near the landward edge of the bedrock shore, approximately one m east of the retouched chert. At the pointed, distal end the concave shaped glass piece is retouched in an uneven manner on both sides. The retouch continues on one side of the shaft primarily along the ventral surface. This modification is generally not as steep as the retouch on the dorsal surface, especially at the point. The blunt proximal end is somewhat squared and resembles a prepared platform, though is probably a non-modified fracture. (#139)

The glass appears to be part of the neck from a case or wine bottle as it has a moulded groove on its ventral surface which resembles the inside curve of a bottle neck, perhaps from the area just above the shoulder (Jones 1986:95; 1985:17). This groove forms much of the shaft of the piece and, when held in the left hand, the thumb rests

easily in the moulded groove with forefinger wrapped around behind it along its concave surface. A shaft of wood or bone could be easily hafted here in place of the thumb. In this position all retouched edges are useable. However, no polish was visible on the groove's edges which might indicate hafting material abrasion. The concave, dorsal side has many surface scratches running lengthwise at approximately 25° to the long axis, suggesting it may have been used with a fore and back motion. In any case, because of its weak provenience along the shore edge, it is unclear when the piece was used.

Approximately five metres north of the retouched glass and chert a small, split chert pebble flake measuring 2.3 x 1.4 x 0.4 cm was also found along the bedrock shore. It has a tan colored cortex with a light yellow to green interior. It appears to be slightly edge-battered in two small areas along opposite sides of its length and at one somewhat squared end. (#1063)

These lithics and the retouched glass piece were not counted for comparison purposes with South's (1977b) artifact patterns given their weak provenience.

4.11.5 Miscellaneous hardware

Plates 4.14, 4.15, 4.24, 4.26, 4.28

A piece of cylindrically-shaped wrought iron stock measuring 50.0 x 4.5 cm and weighing 3.9 kg (8.10 lbs.) was found in the Structure Area 1 west end exterior midden. It appears to be a counterweight, with the chain link at the proximal end used as an eye for the hanging/counterweight function. According to Light (pers.comm., 1987), after cutting and breaking the wrought iron stock to size, the link would be attached by first hammering a large metal punch into the end of the stock in order to form the main hole, followed by the use of a smaller punch for a secondary hole just big enough to hold the link. Then the eye would be set in the hole and welded two to three times. Assuming the stock is British, it would have originally been about two metres long (Light 1987:11). (#902)

A large, heavy piece of iron measuring 18.0 x 0.4-1.6 x 0.4-0.6 cm and curved into

the shape of a J was found in level three within the Structure Area I east end pit. Its function was obviously as a hook, but it has no holes or rivets along its long section which might indicate its form of attachment. However, since the long straight side is broken at its top or proximal end, it may have been attached in some manner above that point. Similar examples that served various functions such as hanging kitchen utensils and holding candles, have been recovered from various 18th century European and North American sites (Gullov and Kapel 1979:115; Grimm 1970:12). (#1039)

About 65 thin iron flakes, varying in length and width though generally only one mm thick, were also found in the east end pit. They were recovered as small clusters and separate flakes between levels one to five. Their function is unknown though their wide vertical distribution suggests they may have been part of a larger container, as does their general association with barrel hoop pieces or metal strapping.

A caulking mallet ring made of iron and measuring 6.5 x 2.6 cm was found at the south-west corner of the Structure Area I fireplace in a midden matrix, level three. In normal use the ring would be attached to the mallet head in order to help maintain the head shape during use (Light, pers.comm., 1987). A large fragment of brick is wedged into the ring hole, but it seems doubtful that the brick and ring would have functioned together. Although the brick/ring association is probably fortuitous, the fireplace provenience suggests a possible reinforcing function for the ring during fireplace construction, as in modern rebar used to strengthen concrete. (#472)

4.11.6 Activities Group discussion

Plates 4.10, 4.11, 4.15, 4.26, 4.28

Broken and unrepaired tools such as the axe, hammer and shovel blade neck pieces suggest there was either no blacksmith or no smithy at the site. Cartwright had a smithy during the early 1770s at his Ranger Lodge post, but did not record one at Stage Cove (1792 1:18). The few pieces of coal from Feature 6 and Structure Area I and the latter's single piece of slag (described below) suggest there may have been some repair of iron tools. However, the broken tool parts and probable barrel hoop pieces may also be the

result of a lack of raw iron stock or recycleable iron. This interpretation has also been suggested for the tool fragments and broken metal equipment from a Danish mission in Greenland occupied c.1720 (Gullov and Kapel 1979:201).

4.12 Other

Plates 4.11, 7.4.7.5

This artifact class is designated by South (1977b) for specialized activities. The following artifacts are not counted for comparison with South's artifact models because of their apparent function as scrap, or at least in some unknown function (Martin 1985:226).

Structure Area I

A small piece of grey-brown slag, measuring 2.7 x 2.2 x 1.1 cm, was recovered from a small disturbed area along the interior edge of Structure Area I at its north-east corner. This item, pock-marked with air holes and with one small patch of what is probably brick mortar, suggests blacksmithing activity (Unglik 1987:98-99). The single iron tong lead sprue and single iron tong recovered from this area suggest the activity was lead shot manufacture. The function of the small piece of reddish fired clay associated with the slag is unknown, though it may have been used in brick making. Clay pipe and ballast flint fragments were used as 18th century brick temper material (Gurcke 1987:127-28), so the fired clay may have as well. (#1032 A,B)

A small piece of shiny black coal was found in the middle of the feature's east end. This piece, with dense, tightly bonded layers, measured 2.0 x 0.9 x 0.8 cm. Wood is the site's only documented fireplace fuel, but coal may have been burnt as well, perhaps during an activity such as lead shot manufacture. (#682A)

Associated with the coal were numerous iron flakes positioned immediately below a black matrix of wood and pieces of a yellowish-brown, paper-like material. Cartwright recorded using "pitched paper" as a roof covering and recommended covering board and

pitched paper roofs with moss and peat sods (1792 2:13; *Cartwright Additions*:33, 63). Given this documentation and the layered material's similarity to paper, a sample was sent to the Canadian Conservation Institute for analysis in order to verify its composition (Miller 1988). The material could not be positively identified, given its degraded condition, but it was found to have "fibrous and granular inclusions."

Feature 5

Approximately 12 pieces of lead plus a few pieces of a pitch-like material and wood were recovered during shovel testing of the area surrounding the brick concentration. Another 12 pieces of lead plus more wood, some of it sawn, were also recovered from the test pits scattered within a 30 x 10 m area paralleling the shore.

These materials and their provenience may reflect the boat building and plank cutting associated with building seal oil vats, a probable shore-edge activity (1792 2:27, 33). Further, much of this area immediately back from the shore comprised one of the few sections of Stage Cove shoreline suitable for hauling boats out of the water or building a stage or wharf. This is due to the sloping bedrock and the shore's ledge-like edge. No structural remains were visible at surface though, and none was encountered below ground during testing. (#33,#73,#168B)

This concludes the descriptions of artifacts not used in the study on the site's occupation chronology. Ceramics and tobacco pipes are described in the following chapter as part of that study.

CHAPTER FIVE

Chronology and Artifact Models

5.1 Introduction

Diagnostic ceramic sherds from the Kitchen Group are first described and stylistically dated. They are then quantified in the Mean Ceramic Date Formula (South 1977b:217). The formula provides a median date for ceramic use and deposition and in turn for site occupation. These formula dates for the site and features are compared with artifact style and documentary dates. This comparative process is repeated using the tobacco pipe assemblage and the Harrington/Binford and Hanson pipe dating formulas (Oswald 1975). The results are discussed following each set of comparisons (Tables 5.1-5.9). Lastly, the whole assemblage is compared with South's artifact patterns and the results are discussed (1977a; 1977b; Tables 1.1-1.3).

5.2 Ceramics: description and stylistic dating

Tables 5.1,5.2,5.4

Plates 5.1,5.2

5.2.1 North Devon Gravel wares

Nearly all the North Devon gravel free ware was recovered from Structure Area 2. A small amount was excavated and two relatively large, separate sherd clusters were collected from slightly disturbed contexts within the feature. The sherd body fabric is usually a dull, light red with a grey core, similar to North Devon gravel tempered ware recovered in North America and Britain (Noël Hume 1970:133). The sherds tend to have an amber colored glaze on the exterior with a pale green glazed interior, or else an amber colored glaze on both sides. According to Watkins (1960:48) the tempered ware is:

"a wheel-turned type with a texture that is poorly kneaded, bubbly and porous and it cleaves in an angular and very irregular way because of the coarse temper. It is hard and resistant to blows, but crumbles at a fracture point when broken."

Some of the gravel free ware sherds appear to contain a bit of the coarse, water-worn quartz and feldspathic gravel temper and generally look nearly identical to the gravel tempered (Coleman-Smith 1979:60). Both wares have a similar looking texture and cleave in a similar way. (#1001,#1002)

Gravel tempered ware is considered heavy and crude but practical, a ware which could be used in vessels made to be heated (Grant 1983:61). Yet since many gravel free vessel forms appear to have been pans, jugs, pitchers and storage jars, they may not have been heated during use (Grant 1983:53, 136-137). Certain vessels were made with both types of ware, such as jars with handles, so their producers may have thought them comparable as well (Grant 1983:54). In the 17th century these pans and especially jars of this ware were "essential for preserving and pickling foods and for brewing beer" (Watkins 1960:50). Since these types of food processing continued into the 18th century, and since Cartwright documented these activities at Stage Cove, it is probable the North Devon ware was used in the same manner (1792 1:223, 245, 263; 2:12, 85).

An attempted restoration of the sherds suggested that no less than two and possibly no more than four vessels are represented. They resemble large pans used for cooking or washing as well as large rimmed storage jars (Coleman-Smith 1979:60). Although their side wall height could not be determined, two had diameters of 40.0 cm and 29.8 cm respectively, with reinforcement strips below the rimtop. Gravel tempered pans were made with sides ten to 12.5 cm high and had rims 33.0 to 48.3 cm in diameter, with reinforcement strips below the projecting rimtop (Watkins 1960:48-50). Both reconstructed examples have these strips and their rim diameters are similar to the pans.

A rim sherd from either a small jar or pan with a diameter of approximately 15.3 cm was also excavated. A small jar rim similar in shape has been recovered in Britain dating

to the 18th century (Broadly 1979:67, 99). The extent of the glaze on the Stage Cove piece is different though as it is continuous around the shoulder and on both sides, while that of the British piece stops at the outcurve of the shoulder. A better vessel match is a small pan like the one excavated from a late 17th century context at Jamestown, Virginia (Watkins 1960:56). These pans were also used in the 18th century and, like the Stage Cove example, may be either gravel tempered or gravel free (Watkins 1960:56; Grant 1983:136). (#183)

Two body sherds with three parallel wheel marks probably represent two vessels as the former piece has a green glaze while the latter is orange. The grooves resemble those in small gravel tempered cooking pots. A comparable example, 15.3 cm high with a 24.1 cm diameter top, was excavated at Jamestown, Virginia from an undated context, perhaps 17th century (Watkins 1960:40). These wheel marked pieces however, are very likely from a type of 18th century platter or charger (Grant 1983:136). (#120,#201)

5.2.2 Creamware

Tables 5.1-5.4

Plate 5.3

Creamware comprises the majority of the Structure Area 1 and Feature 3 ceramic sample, though only about 23% for Structure Area 2. This lead-glazed fine earthenware has a cream colored body with a pale yellow glaze. Approximately 86% (n=78/91) of the Feature 3 ceramics were creamware, the highest concentration from any of the excavated areas. These included the only sherds of the deeper yellow shade of creamware first developed in the 1760s and called Queen's Ware (Noel Hume 1970:126; 1973:239). They appear to be plate sherds with two slightly different patterns, each of which was produced for approximately a decade. (#852,#459)

Plate sherds from the fireplace area had a pattern with a feather design on their rim edge called the Old Feather Edged. This pattern, dated to c.1770-1785, was made in at least two types, each with a feather with eight fronds, six small ones positioned between two large (Noël Hume 1973:224-25, 238). Only one type has a gap or break in the

fronds. It also appears to have a more undulating rim edge than the one without the gap. (lot 935,#29,#998,#868)

A source of the design with the break between the fronds was the Melbourne firm's Derbyshire factory which operated c.1760-1785 (Towner 1971:21). The design without the gap is attributed to Wedgwood's pottery factory in Staffordshire (Noël Hume 1973:225, 238-239). Examples have been excavated from Williamsburg, Virginia and dated c.1770-1785 (Noël Hume 1973:225).

Bowl sherds from the base and wall of what is probably a small, undecorated creamware bowl were also recovered from Feature 3 (Noël Hume 1970:132-33). The bowl wall height and rim diameter could not be determined but the base appears similar to those on small creamware and pearlware bowls from throughout the late 18th century and into the early 19th (Noël Hume 1970:132,133). A few cream ware sherds from a different vessel have bead and reel edging on what appears to be their outside surface just below the rim. This design, dated on a coffee pot with a c.1768 British provenience, is in keeping with a site midden largely dated to the 1770s (Charleston and Towner 1977:Fig.72). (#58)

5.2.3 Miscellaneous wares

Tables 5.1,5.2,5.4,5.5

Plate 5.2

Three porcelain sherds from the kitchen area of Structure Area 1 and one sherd from Structure Area 2 appear to be Underglaze blue Chinese porcelain (Noël Hume 1970:137; South 1977b:211). The chinoiserie floral design is sharp and clear, covered with a vitreous sheen. The sherds are made of a whitish-grey paste, hard and dense with a slight blue tint. They appear similar to porcelain saucer and tea bowl rim sherds excavated from a c.1725-1775 provenience at Fort Michilimackinac (Miller and Stone 1970:84). (#69,#113,#934)

These porcelain sherds have a new appearance characteristic of Chinese porcelain, unlike a faded sherd of English porcelain excavated from Feature 3 (Noël Hume

1970:137). This latter sherd's faded transfer print, softer looking paste and crazing distinguish it from the Chinese porcelain. Its paired blue bands at the rim edge resemble those on an English underglaze blue porcelain saucer recovered from a British fort in Pennsylvania occupied c.1760s (Grimm 1970:160-61). (#857)

Most of the site's tin enamelled earthenware (n=22/26) came from Feature 3, with the balance from Structure Area 2. A few of these small, cream colored sherds were enamelled in a light, duck-egg blue but most had no enamel, including the single rim sherd from Feature 3. The fine, untempered, earthenware fabric and light blue enamel suggest both French faience as well as British Delftware. (lot #850)

The shape of the single rim sherd indicates it is a large bowl with a probable vessel rim diameter of 32-34 cm. Examples of French faience bowls comparable in rim shape but with a smaller diameter have been recovered from the Louisbourg fortress, dating to c.1719-1745 (Barton 1981:6, 23-25). However these bowls have a "soft pink/red" fabric and are "generally covered inside only with a white slip" (Barton 1981:23). They are attributed to manufacture in southern France.

A better match appears to be Delftware, a ware made of a "soft-paste," with a "light buff-coloured body and glaze of light blue" (Grimm 1970:159, 163). Delftware wash basin and punch bowl manufacture dates to the late 18th century. Sherds similar to the Stage Cove ones were attributed to a Delftware bowl with a 22.8 cm diameter recovered from a British fort in Pennsylvania occupied c.1760s (Grimm 1970:159, 163). The Stage Cove tin enamelled earthenware sherds might be from either vessel, but in any case they were not used in the ceramic formula dating as their type could not be positively identified (Noël Hume 1970:111, 147; South 1977b:212).

Feature 3 contained the only sherds of slipware, identified as lead glazed (combed yellow) (Noël Hume 1970:104-07; South 1977b:211). These sherds have a buff colored paste with cream-colored glaze. A feather or leaf design on some is coated with a brown slip, as are the engine-turned grooves. Neither rim diameter nor wall height could be

determined, though the curvature of the sherds suggests a bowl.

Final^v. Structure Area 2 contained the only sherd of white salt-glazed stoneware. This excavated rim sherd appears to have been part of a mug as it is nearly identical to a fine stoneware mug from a c.1755 American context (Noël Hume 1970:115). (#119)

5.2.4 Mean ceramic date formula

Tables 5.2-5.4,5.9

South developed the Mean Ceramic Date Formula as a means of estimating occupation periods for British sites. Its use requires that sherd numbers from each British ceramic be multiplied by the ceramic type's median date of use. This date is established via documentary research and calculation of sherd count peaks on a popularity curve. The product of each type median date and sherd count is added and the sum divided by the total number of sherds. The result is the mean ceramic date of deposition. According to South (1974:145) it "equates well with the median occupation date represented by the total ceramic collection" from a site. All the Stage Cove sherds were used in the formula except for the 26 tin-enamelled sherds whose exact type and cultural affiliation could not be determined.

In comparing occupation dates within and between site features, the Mean Ceramic dates for the median occupation of Stage Cove, Structure Areas 1 and 2 and Feature 3 are, respectively, 1722.5, 1781.4, 1733.0 and 1782.1. The dates for the site and Structure Area 2, compared with the documentary record, are obviously too early while those for Structure Area 1 and Feature 3 are a bit late.

The formula may have been skewed by sample size or by incorrect median production dates for certain ceramics. The North Devon gravel free ware was assigned a median production date of 1713 based on stylistic comparisons with the North Devon gravel tempered ware and on documentary research (South 1977b:211). Gravel tempered ware has a relatively long production period of 125 years compared with the other site ceramic types, with a consequent early 18th century median date (South 1977b:211). The

1713 median date assigned the relatively large sample of gravel free sherds (n=122) is suspected of skewing the formula results for the whole site and for Structure Area 2. The more accurate 1780s median dates of Structure Area 1 and Feature 3, features which lacked gravel free ware, suggest this as well. Moreover, when the North Devon gravel free ware sherds are removed from the Structure Area 2 date calculation, the result is a median occupation of 1788.9.

Both the North Devon gravel free ware's long manufacture period and its method of arrival in Labrador are probably responsible for the skewed dates. Gravel free ware may not have been produced throughout the production period of gravel tempered, and therefore may need to be classified as a separate ware with a different median production date. Further, the ware reached Stage Cove in the 1770s, a time when at least the production of gravel tempered ware was decreasing and, presumably, so was gravel free (South 1977b:211). In contrast, the seasonal migration of British fishermen and sealers to Labrador was not decreasing.

Some of the Stage Cove fishermen and sealers presumably came from Devon, other areas of south-west England and south-east Ireland, just like many of their countrymen who worked as servants in the migratory fishery (Matthews 1973:180; Thornton 1977:160-61). All of these areas would have had access to North Devon gravel free ware based on local and coastal trade (Watkins 1960:27). The gravel free sherds then probably represent a ceramic connection between these areas and Labrador via a pottery tradition that was fading in popularity. This connection, plus the ware's production period suggests why a popular early 18th century ceramic type was used and discarded approximately 60 years later.

The 1780s dates of Structure Area 1 and Feature 3 may be due to sample size and relatively early 18th century median production dates, respectively. The Structure Area 1 1781.4 date, seven years later than its documented occupation median of 1774.5, was based on only 19 sherds. With such a small sample the production date of one ceramic

type can easily skew the date produced from the total ceramic assemblage. Therefore, the 1781.4 date is considered suspect as a median occupation date, as is the 1782.1 Feature 3 date. The latter may have been skewed by the relatively early 18th century median date of 1733 for lead glazed slipware (South 1977b:211).

Some degree of Structure Area 1 occupation into the 1780's or later in the century cannot be ruled out since the Strait of Belle Isle historic record indicates a small but steady increase in the European servant population (Thornton 1977:159-61). Yet a single, circa early 1770s occupation of Stage Cove is supported by most of the site assemblage stylistic dates. Further, Cartwright's last site reference during the summer of 1779 mentions the buildings "shut up" as they had been since early in the year, suggesting little if any house occupation then (1792 2:362, 485). A general comparison and discussion of each feature's ceramics follows.

5.2.5 Ceramic discussion

Tables 5.3-5.5

Plates 5.1-5.3

The range of ceramics recovered has been limited by a small sample size and by documented trash removal from about Cartwright's household (1792 2:67). In addition, few ceramics would be expected within or near the house considering the one year documented occupation followed by Cartwright's move to a new house with most, if not all his household goods (1792 2:105). An American privateer's raid in 1778 would have further reduced, if not terminated, ceramic use and discard in Cartwright's house (1792 2:116, 362). Given this historic record and the variability in sherd quantities per feature, intra-site comparison of sherd counts was not done. Ceramic stylistic attributes were compared though, as variability in sherd quantity does not effect ceramic qualitative characteristics (Fisher 1987:53).

The relative abundance of creamware in Cartwright's house reflects its popularity as a comparatively cheap but durable tableware during the 1770's (Noël Hume 1973:218-24). Its documented popularity with the gentry as a preferred tableware is

indicated by the recovery of half the sherds ($n=10/20$) from the fireplace area, the probable centre of domestic activity. A number of creamware plate sherds of the same shade and with the gap in the feather design were found both in his house and Feature 3. These shared attributes indicate the feather design plates were used in Structure Area 1 and probably discarded in Feature 3, a practice perhaps reflected by the documented trash removal from Cartwright's house (1792 2:67). The similar 1780's median dates for these two features also suggests Structure Area 1 may have been the source for much of Feature 3's ceramics.

Creamware plate sherds without the feather gap were found in both Structure Area 2 and Feature 3, but not Structure Area 1. The Feature 3 sherds were mostly recovered in the deeper and therefore the earlier of the midden's two cultural strata. This suggests they may have been discarded early in the Stage Cove occupation, pre 1774. If so, then the household in which these vessels were used would either have been the shoremen's house or the sealers', the only two houses built and at least seasonally occupied between 1771 and 1774 (1792 1:133). Since plate sherds without the feather gap were also found in Structure Area 2, it may have been the source of at least some of the creamware plates the sherds represent.

The shared attributes of the plates suggested cross-mending, but that process was unsuccessful. Colour appears to be a poor cross-mending attribute for creamware since it is affected by many variables in the manufacturing process (Noël Hume 1973:239). The shared design attributes proved equally unsuccessful, though probable rim joins were used to estimate a minimum vessel count. The likelihood of a join was subjectively determined on the basis of paste, glaze, crazing, sherd thickness, as well as decoration and colour (Kenyon and Kenyon 1982:3). Comparisons were made with contemporaneous pieces described in the literature and results are discussed in terms of economic and cultural dimensions. The former dimension is assumed to reflect the expense of ceramics and the latter dimension ceramic shape based on different patterns of

eating (Kenyon and Kenyon 1982:25).

Ceramic type and vessel form differences between Structure Areas 1 and 2 indicate merchant/servant differences in regional background and diet. The North Devon Gravel free ware from Structure Area 2 was probably as popular as gravel tempered ware though there is less documentation on its use (Grant 1983). The gravel tempered ware was a relatively inexpensive coarse ware used throughout the 17th and 18th centuries (Watkins 1960:20-27). Since some of Cartwright's servants probably came from areas in Britain where gravel ware was used, it seems likely they would have continued using it in their households during their two to three year tenure at Stage Cove.

The gravel ware vessels identified as either cooking pans or storage jars plus the stoneware mug appear to be the ceramics of those servants. A servant preference for European food is not only documented but is reflected somewhat in the relatively large amount of bone from domesticated fauna from Structure Area 2 (MacLean 1987:57). The gravel ware vessels plus the stoneware mug seem well suited for preparing, storing and serving European provisions.

Though the ceramics appear to reflect a correlation between documented dietary preferences and faunal sample differences, they do not seem to be as useful as indicators of economic rank. Plates of creamware in a servant household are perhaps no surprise considering the popularity and relative cheapness of creamware, but more expensive porcelain tea bowls or cups there are somewhat surprising. Nearly 30% of the creamware (n=40) and one of four sherds of the Chinese porcelain was recovered from Structure Area 2. At least two creamware plates are represented while the porcelain rim sherd suggests a small bowl. The presence of both ceramics in that household and Cartwright's reflects a degree of ceramic homogeneity.

It is very doubtful Cartwright's servants could have purchased their own ceramics at or near the site due to its relative isolation. They may have brought them from Britain or Ireland, a process suggested by the North Devon gravel free ware recovered mainly at

Structure Area 2. But given its expense, servant ownership of Chinese porcelain would seem doubtful. However, Cartwright may have supplied his servants with both creamware and porcelain since he also provided his staff with some of their work clothing and equipment along with food and lodging (1792 I:vii, 46, 146). Managers of small, 19th century plantation sites in the south-eastern United States supplied their slaves and servants with ceramics, a practice which results in a fair degree of ceramic homogeneity at these sites (Orser 1988:745-47).

If Cartwright acted similarly to the plantation elite, then porcelain tea ware and creamware sherds in both a merchant and servant household makes them a poor measure of differences in the occupants' purchasing power. The porcelain distribution in particular suggests it was not used to support a social hierarchy at Stage Cove.

5.3 Tobacco Pipes: description and stylistic dating

(*n*=177)

Tables 5.6-5.8

Plates 5.4,5.5

The pipe sample included 115 stem pieces and 45 bowl parts. None of the stems were decorated though eight bowl parts had moulded designs or letters, some of which clearly date to the late 18th century. The diameter of 102 of the stem bores was complete enough for measuring. These are quantified in dating formulas and the results compared with stylistic and documentary dating.

5.3.1 Structure Area 2

Two pieces of a decorated pipe bowl, together comprising about half of the complete bowl, were excavated in this feature. On the exterior of the more lightly stained part is a figure moulded in relief resembling a prancing lion or dog. On the more darkly stained fragment there appears to be a standing human figure. A British comparison dates to 1730-70 as does a Colonial American example, while a similar example from Louisbourg, Nova Scotia dates to c.1770-1780 (Noël Hume 1970:303; Walker 1977 D:1551; Oswald 1975:99). (#178/180)

The bowl parts have a raised, somewhat segmented band encircling them in a fluctuating curve. Within the band there appears to be a floral element, perhaps clusters of grapes. This design element is similar to a 19th century example from Signal Hill, the Island of Newfoundland (Jelks 1973:73, 91, 107-15). A raised curvilinear line barely visible just below the lip of the bowl and divided roughly into hemispheres is a design element dated to c.1730-1790 (Walker 1977 D:1551).

A small pipe spur and stem fragment excavated has a poorly defined capital B or W on one side of the spur. This stubby, cylindrical-shaped pipebowl base is very short and quite oblong compared to the others in the assemblage. The incomplete design could only be tentatively identified and no comparative examples were located. (#879a)

A small decorated pipe bowl fragment, about 15% of a complete bowl, has the capital letter D and possibly the bottom of the capital letter T to its left in part of round cartouche with a rouletted border. Below the letters but within the cartouche is what appears to be a floral or simply curlique design. It vaguely resembles the capital letter H lying on its side, with the ends of the bottom bar of the H bending away from the top bar in the shape of a C. A roughly similar example, dated to c.1780 (Oswald 1975:69) has a cartouche and a broken C, reversed and pointing back to the letters above. (#102)

Many pipes with the letters T D have been recovered from British military sites dating to the American Revolutionary War period. The T D design was applied to pipes manufactured throughout the 18th century and into the early 19th century at least, which limits its utility as a dating tool (Omwake 1970:114). Where the Stage Cove T D pipes originated is unknown, though it may have been London. During the 1760s the pipemaker Thomas Dormer made pipes in London, and until 1835 he was the only British pipemaker with those initials registered in the guild records (Omwake 1970:114). Since London was one of Cartwright's supply points for goods and labour prior to sailing for Labrador in 1774, T D pipes could have been obtained at that point (1792 2:2). Alternatively, these initialled examples may represent Bristol pipemakers who were

known for moulding initials on spurs during the 17th and 18th centuries (Noel Hume 1969:304-05).

5.3.2 Feature 3

Two bowls recovered here, each approximately one half of a complete bowl, had the capital letters M and W on either side of their spurs. The letter tops point away from the smoker.

One bowl had a 4/64ths inch bore diameter stem with a mould line along the spur bottom, common traits dating to the mid to late 18th century. Other bowl attributes suggestive of this period are the relatively steep 110° angle between it and its stem and the long, tall bowl shape (Oswald 1975:40-41). A comparable British example dates c.1780-1820 (Walker 1977 D:1533). (#162)

The second bowl ascended at 102° from the middle of the mould line along its stem, with the juncture between bowl and stem forming a definite heel. The letters M and W seem a bit larger and in greater relief than #162 since they fully cover both sides of the spur and extend slightly onto the bowl base. This bowl is similar to British bowls dating between 1720-1780, and specifically to a c.1760 style (Oswald 1975:40-41; Walker 1977 D:1527, 1545). (#1015)

Since the pipemaker William Manby is known to have been working in Britain in 1763 the letters may refer to his initials (Oswald 1975:37, 142; Walker 1977 D:1527). Oswald (1975:98) has suggested that a pipe example with the capital letters W M from Louisbourg, Nova Scotia dated c.1760-1780 may also refer to Manby, a partnership with him or a takeover of his moulds. Two North American sites have pipes with the letters M and W. They are Fort Moultrie, a South Carolina fort occupied between 1776-1780 and the Mill Creek site, an early 19th century lumber mill complex on the Straits of Mackinac in Michigan (South 1974:149-50, 325; Martin 1985:216). Both the Fort Moultrie example and #1015 had a 5/64ths inch bore diameter.

A small spur piece from a pipebowl has the letters T and B positioned on either side, the letter tops pointing away from the smoker. The letters are approximately the same size but are imbalanced. The T covers the spur and part of the juncture between it and the bowl base, while the B is barely within the spur bottom edge. The spur has a backwards slant towards the stem with a very shallow groove running along its bottom, probably the mould line. (#862b)

5.3.3 Structure Area 4

Two clay pipestems recovered here were similar to those from other structure areas. Their 5/64ths and 4/64ths inch bore diameters were popular sizes during the mid to late 18th century (Harrington 1978:64). This similarity in bore diameters suggests both stems and the rest of the site assemblage were deposited contemporaneously. (#298)

5.3.4 Feature 5

An undecorated clay pipebowl fragment was recovered within a matrix of brick sherds and brick mush from this feature's unit. Its provenience appears to illustrate the documented use of clay pipe fragments as temper in brick manufacture. (#1061A)

5.4 Tobacco Pipe study by formula

Map 1.2
Tables 5.7-5.9
Plate 5.4

The tobacco pipe assemblage was dated using the Harrington-Binford and Hanson pipestem formulas. The pipe assemblage was broken down per structure and feature in order to determine if the formula dates might indicate an occupation range for the various features. Comparing the formula derived dates with the bowl stylistic dates and the documented occupation also seemed an appropriate means of testing the formulas.

Binford developed a straight-line regression formula based on Harrington's technique of measuring British pipestem bores (Binford 1978a:66-67). The formula is expressed as:

$$Y = 1931.85 - 38.26 X$$

Y is the date of the pipe deposit, 1931.85 the date that bore diameter reduction would have reached zero, 38.26 a change interval constant and X the average stem bore diameter measured in 64ths of an inch (Oswald 1975:92). At the later end of the dating range the formula is most accurate with pipes deposited prior to 1780. Its reliability is reduced after that date due to the mass production and proliferation of moulds, the impracticality of bore diameter reduction beyond 4/64 inch and the increased use of pipes with short stems (Oswald 1975:93).

Hanson's stem dating formula was also used since time ranges in his version covered the documented Stage Cove occupation. With Hanson the bore reduction process is treated as being non-linear such that pipes from different periods require different year dates in which the pipe bores would reach zero, as well as different change interval constants (Oswald 1975:93). The zero year and constant from Hanson's formula used for the Stage Cove pipe stem bores is expressed in the formula:

$$Y = 2026.12 - 58.97 X$$

Pipe bore diameters get progressively smaller during the 17th and mid 18th centuries (Oswald 1975:92). This size reduction is apparently linked with the use of thinner wire to form the pipe bore as the thick wire formerly used could damage the longer pipes (Noël Hume 1969:297). Consequently pipe bore diameters decreased over time in a fairly regular manner, though this process was subject to local variation (Oswald 1975:93).

With the Harrington-Binford formula Stage Cove was dated to 1778 (n=102), Structure Area 1 1767.3 (n=20), Structure Area 2 1759.7 (n=43) and Feature 3 1766 (n=39). Except for the site date the rest are from four to 12 years earlier than the initial documentary one. The results reflect a characteristic problematic use of the formula with small pipe samples (Noël Hume 1970:300). According to Hanson's formula the site

occupation dates to 1789, Structure Area 1 1772.5, Structure Area 2 1760.7 and Feature 3 1772.5. The Hanson formula worked somewhat better than the Binford/Harrington one since two dates fall within the documented occupation period.

The reasonably accurate 1770's dates illustrate that the pipe bore formulas are appropriate for dating this British pipe sample, a conclusion which supports the general use of the formulas on pipe samples deposited prior to 1780 (Omwake 1975:92; South 1974:29). The site median occupation dates were up to 14 years off the documented median of 1775.5, but this range is within the statistical formulas standard deviation of plus or minus 10-15 years. An expanded pipe sample might compensate for the dating error.

Finally, it is interesting to note that Structure Area 2 consistently produced early occupation dates relative to the documentary record. By pipe bore formulas this feature dates to 1759.7 and 1760.7, while by the Mean Ceramic formula its median occupation is 1733.0. The accuracy of this last date is questionable given that the formula produced a 1788.9 median occupation date for Structure Area 2 when its North Devon gravel free ware sherds were removed from the date calculation. Nevertheless, this grouping of early dates suggests a pre-Cartwright occupation of this feature.

The small Structure Area 2 sample precludes determining the nature of this possible occupation, but during the 1760s the British merchants Bayne, Brymer and Darby built and maintained sealing and fishing facilities at Cape St. Charles and near the mouth of the St. Charles River (1792 1:3; Privy Council 1927 7:3284-85). Further, Cartwright discovered tilts of earlier French Canadian merchants near his Ranger Lodge house (1792 1:46-48; Trudel 1981:317, 367-70). Given this pre-1770s activity it is possible that Stage Cove, midway between the two other areas, has an earlier occupation.

5.4.1 Tobacco Pipe discussion

Map 1.2

Quantitative comparisons of the pipes cannot be made due to unequal excavation

area size per feature. However, some general comparisons of the pipestem formula results, the pipebowl stylistic dating and the site's documented occupation can be made. The bore formula dates appear to be just as accurate dating tools as the stylistic attributes despite a relatively small sample of pipestems. The formula dates of c.1760-1775 cluster closely to the documented occupation period. The pipebowl design elements, dating between the middle and latter parts of the 18th century, compare favourably with that period.

The pipebowl (n=3) design variety suggests more than one supplier for the Stage Cove pipes since a pipemaker's market "was not likely to extend twenty or thirty miles beyond his place of work" (Oswald 1975:127). Given that pipes were probably the personal property of each servant, this stylistic variety in the Structure Area 2 bowl fragments suggests variety in the pipe smokers' place of origin. In addition, stylistic variety may reflect the turnover of Cartwright's servants who usually worked only the length of a voyage, generally two summers and a winter. This two and a half year time frame plus Stage Cove's relative isolation would also have restricted the rate of pipe resupply. An inference derived from this supply restriction and servant employment periods is that pipes may have been curated more, thereby reducing their discard rate. If so, a sample with both early stem and bowl dates, compared to occupation dates derived from other means, might be expected. The c.1760 stem formula dates may reflect this process, though inaccurate pipe formula dates are often the result of small samples, defined as between 100-300 hundred stems (Noël Hume 1970:299-301).

Structure Area 1 pipestems (n=22) and bowls (n=11) were present in nearly all the feature's excavated areas, though most pieces came from the living floor. No complete pipes were recovered and none of the fragments has any dateable decorative elements. A small concentration of pipe fragments around the fireplace associated with bone, bottle glass and ceramic pieces suggests the pipes were deposited as refuse. These fragments also reflect the domestic activity that would be expected near a fireplace. An annoyed

Cartwright corroborates this domestic focal point by complaining about the amount of time some of his servants spent by the fireplace, especially during the winter trapping and hunting season (1792 2:57).

All of the Structure Area 2 bowls (n=3) and half the site's measureable pipestems (n=51) were recovered from the feature's one metre square. The artifact density, plus other artifact and bone fragments recovered, reflect the area's refuse deposit function. Yet this relatively large pipe sample, compared with 33 pipe fragments from Structure Area 1, suggests tobacco smoking was a popular activity for the Structure Area 2 occupants.

Over half of the relatively large number of pipe stems from Feature 3 were heavily fragmented. Most fracturing may have occurred where the pipes were used since breakage probably ceased once they were in the ground. They would have been discarded there as refuse, probably as a result of cleaning a living area. The source of the discarded pipes in Feature 3 is unknown, but they may have originated from a site household other than Structure Area 2 since that feature had an adjacent refuse deposit with many pipe fragments. Finally, the extent of the late 18th century British pipe trade in North America is reflected in the similarity of some Stage Cove bowl designs to examples recovered from South Carolina, Michigan, Louisbourg and St. John's (Lewis 1976; South 1977b; Martin 1985; Jelks 1973).

5.5 Artifact models

5.5.1 Model organization

Tables 1.1.1.2

Modeling the site artifacts according to South's Frontier and Carolina patterns allowed for regional comparisons with sites occupied contemporaneously with Stage Cove and which functioned as multi-purpose British settlements. Different degrees of excavation at the sites do not hamper comparisons as artifact class proportions, not raw numbers, are being compared and contrasted.

The artifact classes in South's models are defined by a standard percentage range for each artifact class, with artifact class proportions representing "relationships between formal and functional categories" (Martin 1985:12; South 1977b:92-98). Their classification format is based on the principal of close functional relationships. For example, artifacts such as nails and window glass are both categorized as Architecture Group artifacts while gun flints and musket balls are included in the Arms Group.

The Frontier Pattern can be characterised as one of architecture as artifacts from this group tend to dominate frontier site assemblages. According to South's models a characteristic of frontier artifact assemblages is a distinct ratio of nearly two to one between architecture and domestic artifacts, *i.e.* nails and window glass versus ceramics (South 1977b:146-47). This relationship is attributed to the short-term nature of occupation of frontier sites and to their relative inaccessibility from main supply points.

Assemblages representing the Carolina Pattern are characterised by a near two to one ratio of domestic to architecture artifacts, the inverse of the Frontier Pattern. This pattern is considered to be more of a British colonial site type characterised by longer occupation and a subsequently higher percentage of domestic artifacts. This type reflects more multi-purpose sites occupied for longer periods and which have more efficient transportation connections with supply centres (South 1977b:92-98; Martin 1985:12). Comparisons of the artifact categories were measured in terms of degree of fit between the site and the models. The fairly detailed site documentary record was brought to bear on the results in order to interpret them further.

5.5.2 Artifact comparisons; stage 1

The Stage Cove assemblage did not match well with either model upon initial comparison. Percentages of two artifact groups fell within those of the Frontier model, two group percentages fell within neither model and four groups fell within both. The mean percentages of three of these, Architecture, Tobacco Pipes and Activities, are closer to ones in the Carolina Artifact Pattern. Yet, the Stage Cove Furniture Group is

outstanding for its substantial difference from either model. This group, comprised of nearly 3800 lamp glass sherds, made up 62% of the assemblage though it usually comprises less than two per cent in Frontier and Carolina Pattern assemblages (South 1977b:153; Martin 1985:12, 22, 163).

This glass was initially classified in the Furniture Group in keeping with others artifacts such as candle stick holders, drawer handles, brass tacks and escutcheon plates (South 1977b:95,98). However, given the large Furniture Group percentage in the Stage Cove assemblage, lamp glass appeared to be misclassified. If so, its function as a Furniture Group artifact would be incorrect. Reclassifying the glass then seemed appropriate in order better to represent its original function (Martin 1985:22). This reclassification process is also in keeping with previous archaeological practice.

This procedure has been criticised though on the grounds that it creates new models based on local and/or regional culture history (Adams 1989 pers.comm.; Joseph 1989:58-65). Reclassifying artifacts into different groups may improve their fit with the models, but only results in the creation of another descriptive pattern (Lees 1989:124). Further, reclassification indicates that the artifact classes may be too broad and therefore cannot serve as testable models (Crey 1983). Given this criticism and the poor fit between the modeled data, further comparisons of the site artifact groups with the models seemed of dubious value.

Yet, recent statistical analysis using discriminant function analysis indicates South's artifact patterns appear to have some utility as tools for the "identification and explanation of variability in the archaeological record at the intra- and inter-site levels" (Martin 1985:167-70; Lees 1989:124). This statistical analysis indicated that differences between the patterns were strongly linked to a hypothesis based on length of site occupation. An hypothesis dealing with the degree of isolation was considered to have only a slight effect while an excavation bias hypothesis was strongly rejected. The study further concluded that diversity of functions may even be "a more critical factor in

determining assemblage characteristics" than length of occupation or degree of isolation (Martin 1985:169).

Therefore, although the artifact patterns are unsuitable for testing as models, they do provide a standardized data base. Comparisons with that data base can guide investigations at archaeological sites along productive lines (Martin 1985:23). In this study comparisons with the data base highlighted the extremely large percentage of lamp glass at Stage Cove. This large percentage appeared significant as it contributed to "variations from modal artifact frequencies and proportions" (Martin 1985:13). This variation suggested a "specialized behavior and/or function(s) within a cultural context" in comparison with the generalized behavior South's artifact models are assumed to represent (Martin 1985:13). The glass was restudied in reference to this suggested inter-site variability and specialized behavior.

5.5.3 Lamp glass analysis and research

Plate 4.13

Light would obviously be needed in order to work in European subarctic dwellings, especially ones occupied during the winter. This light would have been provided by fireplaces, candles and lamps, all of which were undoubtedly used as light sources in Cartwright's house and those of his servants. This interpretation is supported by the relatively widespread site distribution of the glass from two domestic middens and from house feature interiors. Lamps then may have been used more as an everyday tool by the inhabitants, not just as a piece of furniture.

Stage Cove functioned as a sealing post where seal fat was rendered into oil for shipment to Europe, so fuel for lamps was readily available (1792 1:68). This trade in seal oil and 'trayne oil' was a profitable one as the late 18th century British market for it was growing (Rothney 1935:266). Seal oil production at Stage Cove during the 1771-1772 sealing season was approximately 8000 gallons (1792 1:89, 181-86). Curtis (C.O. 194/31), a one-time partner of Cartwright and a British naval officer familiar with Labrador resources and international trade, stated in 1773 that:

On account of the vast consumption of oil, and which is daily increasing, the seal and cod fisheries render the coast worthy the utmost attention of government. Lamps are become so universal and so agreeable, that the price of oil is continually advancing. It is not inconsistent with an idea of general luxury, to suppose that any person, who, to satisfy ambition, or to serve convenience, determines on having a lamp, will be deterred from it by considering the price of oil; and if it be deemed luxury, happy is that kingdom where luxury can be made a national advantage."

The convenience of lamp use at Stage Cove is reflected by Cartwright's regular writing of official and personal correspondence as well as *Journal* writing, an important indoor activity. Writing took up much of his time there since it functioned as a headquarters post where he resided rather than just solely as a sealing or fur trapping post where he and his servants worked. He occasionally records writing steadily for a good part of the day or night at all his headquarters posts and would have obviously required artificial light to do so (1792 1:67, 128-31, 259; 2:27).

Thus, lamp use was probably facilitated by seal oil production and the various needs for indoor light during a winter occupation at a northern latitude. The large quantity of lamp glass recovered from the Structure Area I west end midden probably reflects this use.

Alternatively, a large number of lamp glass sherds is not a firm indication of numerous lamps or their extensive use, considering the presumed fragility of the glass fonts. Further, lamp glass and the rest of the assemblage were recovered from relatively small samples taken within and adjacent to features representing structures and refuse deposits. The sample is biased since no features were totally excavated. If structure areas had been completely excavated then "different percentage relationships for artifact groups might be expected" when categorized according to South's models (South 1977b:152).

5.5.4 Artifact comparisons; stage 2 Tables 1.3.1.4

Since lamps apparently served more as a tool or instrument rather than a piece of furniture, lamp glass was reclassified as a Kitchenware Class artifact in order to reflect

this apparent function. This new classification slightly improved the assemblage's fit with the Carolina Artifact Pattern, as the new Kitchen Group clearly fell within the Carolina percentage range. The new Kitchen Group mean is also noteworthy as it is over twice as large as the Architecture Group mean, a Carolina Pattern characteristic. This pattern was originally based on data from only a few sites, and South did not expect all British colonial sites to compare favourably with it. Yet even a small data collection permits statistical predictions in order to determine "which types of site fit the empirical range of the pattern and which do not" (South 1977b:118).

South investigated the predictive ability of the artifact patterns by comparing them with an assemblage from Signal Hill, St. John's, Newfoundland, a military site well outside the artifact patterns core region (South 1977b:114-18.). The artifacts from Signal Hill, occupied c.1770-1860, compared favourably with the Carolina Pattern in all but the Activities Group. South then suggested new artifact class percentage ranges for "sites having the same pattern as the model." Except for the Arms Group the new Stage Cove adjusted means all fit within the predicted range of the Carolina Pattern Artifact groups. Yet, the same Stage Cove artifact group percentages, except for the Kitchen Group, also fit within the Frontier Pattern predicted range.

The larger frequency of Stage Cove Arms Group artifacts versus the Carolina Pattern one probably represents the extensive documented hunting for both provisions and Labrador commodities at Stage Cove. The larger frequency of Stage Cove Kitchen Group artifacts versus the Frontier Pattern is clearly due to the site's large quantity of lamp glass. The overlap between the predicted range of the two artifact patterns illustrates the problem of broad artifact class percentages. According to South's criteria then, Stage Cove does not completely fit the predicted range of either model's artifact group percentages.

This concludes the study of artifact models and chronology. A discussion of the site faunal remains follows in Chapter 6.

Chapter Six

Faunal Assemblage

6.1 Introduction

A relatively small faunal sample of 340 pieces of bone was examined by James MacLean at the Howard Savage Faunal Laboratory, University of Toronto (MacLean 1987:57). Percentage frequencies of skeletal elements from primary and secondary middens were studied based on MacLean's analysis. These intra-site comparisons are uneven because of the variation in recovered bone per feature, a result of the exploratory nature of the excavations. However, combining faunal analysis of the bone with a study of the site documentation and architectural remains will help strengthen interpretations of resource use and diet. Specific topics covered in this discussion of the faunal remains include dietary preferences, refuse disposal, hunting practices and social status of the post's inhabitants.

6.2 Sampling method

Map 1.2

Bone was recovered from all of the ridge-top features, but none came from the two small, features lacking structural remains along the shore. About 25% of the bone was recovered in screens with quarter inch mesh. This mesh was employed since screening thick, damp peat with anything smaller seemed inefficient, though the mesh allowed tiny bone fragments to slip through. Careful trowel excavation probably compensated somewhat for this bias towards greater screen recovery of large bone fragments, a claim supported by the recover of the tiny seed beads. Moreover, no additional bone was recovered from flotation of 500 g column samples taken from the various features.

Root damage to some of the bone and decay possibly caused by humic acid in peat reduced the diagnostic portion of the sample from 383 to 340 pieces (MacLean 1987:11,

32, 57). The probable destruction of small bone by erosion in general and soil acidity in particular will also have reduced bone recovery to some degree. A pH level of 6.0 for Structure Area 1 is relatively benign, however. This low pH probably accounts for the substantial 30% of the faunal sample recovered from within and around this feature. Therefore, the acidity of the Structure Area 1 soil is probably not a major factor in the rate of bone recovery.

6.3 Faunal sample overview

Tables 6.1-6.3

Plates 6.1,6.2

Most of the faunal sample was mixed with late 18th century ceramics, bottle glass and building materials dating to c.1770-1790. Fifty-nine per cent of the sample (n=189) could only be identified to the class Mammalia. This result appears to be in keeping with the characteristic abundance of non-identifiable fragments that can result during large mammal bone breakage (MacLean 1987:57; Stewart 1985:12). Species from the taxa *Anatidae* form the majority in the balance of the sample in terms of incidence of bone (18%/n=62). The principal species represented are wild ducks and geese such as the eider duck *Somateria mollissima*, white-winged scoter *Melanitta deglandi*, oldsquaw *Clangula hyemalis*, greater scaup *Aythya marila* and the common black duck *Anas rubripes tristis*. Domesticated species comprise the assemblage's next major portion with pig *Sus scrofa*, at ten per cent (n=36) and cow *Bos taurus*, at six per cent (n=21) (MacLean 1987:57). The remainder of the identified fauna is comprised of small amounts of a variety of assorted native birds plus domesticated stock such as sheep, *Ovis aries*, and chicken, *Gallus gallus*. Fur bearing animals are absent and large mammals such as caribou and seal are poorly represented, as are fish (MacLean 1987:32-35, 57).

Pig, cow and seal were the major large mammal species found in Structure Areas 1 and 2 and Feature 3, on the ridge top. The seal species represented are harp *Phoca groenlandica*, harbour *Phoca vitulina*, bearded *Erignathus barbatus* and perhaps ringed

seal *Phoca hispida* and grey seal *Halichoerus grypus* (MacLean 1987:115-16). Cow bone was the only type of large mammal bone identified at Structure Area 4, the remaining ridge top feature.

Structure Area 1 had the greatest concentration of bird remains (74%) as well as the most small mammal remains (16%) compared to the other building features. The majority of the cow and seal remains came from Structure Area 2, 57% each. There were no small mammal remains from this feature (MacLean 1987:11-19, 57).

Eighty-one per cent of the bone was excavated from building exteriors and only 19% from building interiors (MacLean 1987:121-31). Feature 3 provided 53% of the identified fauna (n=181), the greatest assemblage portion while Structure Area 1 contributed the next largest part at 30% (n=102). The balance of the bone came from Structure Area 2 at nine per cent (n=31) and Area 4 at eight per cent (n=26).

A little more than 20% of the bone was thermally altered while 12% had been butchered. The butchering marks and alteration of the bone is generally quite severe, especially for the larger cow and pig bones (MacLean 1987:13). For example, sharp clean cuts plus chopping and smashing with occasional cuts on both sides, followed by rough breaks. This substantial degree of breakage, including longitudinal splitting of rib bones, suggests that bone marrow was being extracted and the smashed bone, especially of pig, was being used for flavouring soups or stews (MacLean 1987:13). Spiral fractures on some bones, especially pig, indicates breakage prior to cooking. This condition suggests on-site butchering (MacLean 1987:13). Tooth marks, diminished bone ends and punctates on various bones also suggest gnawing by carnivores. Dogs are probably responsible given their documented presence, though only two probable *Canis* bones were recovered. Based on epiphyseal development, seals of all ages were taken. The butchering marks on some seal bones indicate seals were probably killed or dismembered by a blunt or perhaps dull bladed instrument (MacLean 1987:15-17).

6.4 Faunal sample per feature

6.4.1 Structure Area 1

Although 26 excavation units were opened within or around Structure Area 1, just three units produced the vast majority of the sample. Two of these were located in the feature's interior at the east end near the fireplace, while the third unit was outside of and immediately adjacent to the feature's west end.

The fauna from the west end unit, 49% of the feature's sample, was noteworthy for being almost totally comprised of native species, primarily duck (38%/n=39). These bones made up 74% of the Anatidae site total and represented an MNI of 12 individuals. At seven per cent (n=7 pieces/MNI=5) pig bone was the next largest portion in this sample followed by cow bone at two per cent (n=2 pieces/MNI=1). In turn, these amounts totalled 20% and 10% respectively of the site totals for those species. A few seal and assorted bird remains also came from here as did a few fish bones (MacLean 1987:57). Finally, 16 of the site's unidentified mammal bone was recovered from this west end unit, a probable secondary midden.

Approximately 45% of the diagnostic pieces in the Structure Area 1 sample was from the fireplace area (MacLean 1987:132-37). The units along its south side produced pig, cow, and chicken bone plus one piece of seal and one fish bone. The only other site fish bone came from the west end midden (MacLean 1987:57, 126-28).

The bone was found mixed within the bottom of the overlying fireplace rubble, concentrated just at the south edge of a number of flagstones marking the fireplace south-east edge. This burnt bone, ash and charcoal may represent an ash pit, a common 18th century feature used for disposing of hearth debris, especially in Irish houses (Evans 1943:68; Mannion 1974:162). Ash pits were occasionally located under hearth-side benches, a common feature in both British and Irish houses of the time, as were fireplaces large enough to accommodate benches within the hearth area (O'Danachair 1948:94, 104; Braun 1962:91-92). The original dimensions of the fireplace could not be determined,

though slumping of its walls produced a relatively large feature measuring 5.7 x 4.5 m. The original fireplace, which would have fit within this rubble mound and depression, appears to have been large enough to accommodate benches.

6.4.2 Structure Area 2

The 17 pieces identified beyond the class Mammalia were from cow, pig and seal, with cow in the majority at 39% (n=12 pieces). Though fewer seal remains (n=4 pieces) were recovered than domesticated fauna, they represent a larger MNI of three, two bearded seals and one harp (MacLean 1987:115-16). In fact, these few seal remains constitute 57% of the seal bone from Stage Cove, though the feature's bone sample (n=31 pieces) represents only nine per cent of the faunal assemblage (MacLean 1987:57). The 12 pieces of cow bone comprise the site majority (57%) while the single pig calcaneus makes up only three per cent of the site pig remains (MacLean 1987:57).

Slightly more than half of this fauna (n=9 pieces) was excavated at the structure area's south-east corner midden deposit (MacLean 1987:18, 47-48). Eight pieces of seal and cow bone, comprising 43% of this feature's sample, were recovered during the non-systematic surface collection of five half by one metre loci within the feature. This surface collected bone came from slightly disturbed shallow depressions within the feature's interior.

6.4.3 Feature 3

The single one metre square in this feature produced the most identified bone (n=181), though only 54 pieces were identifiable beyond the Mammalia class. The ten species represented reflect the greatest faunal variety in the total sample (MacLean 1987:57-60). There were more pig bones than from any other sampled area (n=27 pieces/MNI=2), while ducks were represented in the form of common eider, white-winged scoter and oldsquaw (MNI=2,1,1 respectively). There was evidence for at least one seal as well as the only site evidence for sheep, goat, dog (MNI=1 each) and shell

fish *Mollusca* (MacLean 1987:57).

This feature may have been the principal midden as it produced the greatest quantity and variety of bone of the sampled areas (n=200 pieces) (MacLean 1987:18, 48-57). The large number of non-faunal artifacts mixed with the bone indicates the feature was a major dump for all types of trash.

6.4.4 Structure Area 4

With only 29 pieces this pentagon-shaped feature contributed only just over eight per cent of the site faunal assemblage. Only four bones were identified to the species level. Domesticated animals are slightly more evident than native species with both chicken (n=2 pieces/MNI=1) and cow (n=1 piece) represented. The single identified piece native species element was from the common eider duck *Somateria mollissima* (MacLean 1985:57).

The small area excavated is probably a major factor in the few species represented compared with the relatively wide range of species from the other features larger samples. All of the Structure Area 4 bone came from a single test unit in a small grass patch just outside its north-west corner. The bones were recovered from a single stratum which included hand wrought nails, clay pipe fragments and charcoal pieces.

6.5 Faunal assemblage discussion

6.5.1 Overview

Much of the faunal remains appear to be domestic refuse, not commercial or industrial, based on the faunal sample distribution and composition. For example, bone from cod, salmon, seal and bear, species exploited for a mainly commercial purpose, was meagre or not recovered at all. In contrast, bone from cow, pig, sheep and chicken was quite evident and reflects imported provisions. This predominance of domesticated animal bone also reflects the sampling emphasis on dwellings and domestic middens.

Bone from both imported and local species was expected in both living floor and midden strata given Cartwright's *Journal* record. This expectation was verified somewhat by the recovery of bone from wild duck, pig and cow (MacLean 1987:149-55). The abundance of duck bone indicates a dietary preference for certain avian fauna, a preference reflected in the numerous documentary references to bird hunting. Yet bone from other well-documented country food sources, such as caribou, was virtually absent.

6.5.2 Deposition and taphonomic processes

The site MNI count of five cows probably reflects the use of imported barrels of salt beef, not the presence of individual animals, (MacLean 1987:13-17, 22). Cartwright made no mention of cows at Stage Cove, though there is a well documented practice of British merchants in Labrador supplying fishing and sealing crews with salt beef and pork, mainly from southern Ireland (Mannion 1977b). However, in the case of pig the MNI of three probably reflects those kept at Stage Cove. On-site pig butchering is suggested by three green-broken pig tibia pieces and one scapula, an interpretation supported by Cartwright's account of most of his pigs dying during the winter of 1773-1774 (MacLean 1987:94-97; 1792 2:5, 31). Yet given that Europeans imported salt pork, some pig bone at least probably reflects that practice.

Butchering at kill sites, on the trapline and along the shore edge was documented by Cartwright (1785:2-18, *Notes*:1-6; 1792 2:7-72). The absence of certain species and skeletal elements in the faunal assemblage is probably because of this off-site animal processing. As a result of off-site processing only some skeletal parts from native species would be expected to get deposited at the site. For example, large and small mammal skulls and distal ends of limbs, skeletal parts that bear only small quantities of meat, were not expected to be recovered and, in fact, were nearly absent except for certain pig bones.

Off-site butchering by Labrador aboriginal people also contributed to selective deposition of the faunal remains. Cartwright traded for seals with the Inuit and caribou with the Innu, with both animals often butchered or pelted prior to trade. The seals

appear to have been processed mainly for oil and dog food. The caribou meat was an important item in the European diet. Both Innu and Europeans brought this meat to Stage Cove on sleds or in boats (1792 1:63, 221-27, 254; 2:71). Based on an assumed expediency they probably transported only the richest meat-bearing parts. Yet, the virtual absence of caribou bone from the assemblage is puzzling. This lack of *Artiodactyla* bone has a parallel at Haabetz Colonie, an early 18th century Danish trading-mission settlement on coastal Greenland. The Europeans there killed many reindeer over a seven year period, yet very little reindeer bone was recovered during the site's excavation (Gullov and Kapel 1979:224). This small reindeer bone count has been interpreted as a result of house cleaning, shore edge refuse disposal and the use of bone debris for domesticated animal feed.

Cartwright documented the use of caribou feet and paunch as hunting and sled dog food at Stage Cove (1792 2:28, 62). This practice would have resulted in attrition of some caribou bone, as might the pickling of caribou meat (1792 2:71). This process would require caribou butchering into suitable size pieces for salting and storage in barrels. This alteration could result in relatively small pieces, though some large parts might still remain.

A further reduction in caribou may have been due to smashing limb bones for their marrow. Cartwright encouraged the use of caribou and other country food in his servants' diet. Caribou limb bones, like reindeer, are considered to be particularly marrow-rich. Given the limb bone marrow content, caribou may have been substituted for domesticated fauna in certain dishes. Smashing limb bones for marrow has been suggested as an explanation for the broken and cut reindeer limb bones at Haabetz Colonie Greenland (Gullov and Kapel 1979:224). Moreover, marrow-rich caribou bone at Stage Cove may also have been preferred by dogs. If flavored with salt as a result of cooking or pickling its popularity may have increased further.

Given that sealing and fishing were major activities at Stage Cove, the small amount

of seal and fish bone recovered was somewhat surprising (MacLean 1987:30). For example, only two bones each (3%) of seal and fish were noted in the 59 identified to the species level from Structure Area 1, with fish bone recovered only from that feature.

Relatively large seal harvests near the site are documented, such as the winter of 1771-1772 when approximately eight of Cartwright's servants took 972 seals, presumably harps, using seven nets over a two week period (1792 1:181-86). Assuming roughly similar seal harvests occurred each sealing season, a substantial amount of bone would be expected from a harvest of this magnitude. Yet only seven seal bones were recovered, the sample composed mainly of fore and hind limbs with virtually no axial and cranial elements (MacLean 1987:24-25, 57). This limited sample suggests that both primary processing of fish and seal did not occur at or near the site residences.

Processing and discard locations at the shore edge were not discovered. During the late 18th century structures associated with seal and fish processing in Labrador were usually located along the shore (1792 1:133). Refuse generated from seal and fish processing here was probably disposed of in the foreshore as is done today. This method of refuse disposal is also suspected for 17th and 18th century cod fishing stations in Nova Scotia and Maine and for Haabets Colonie, Greenland (Faulkner 1985:83; Gullov and Kapel 1979:222). If this practice was followed at Stage Cove, sea mammal and fish bone would obviously never appear around shore-edge structures and activity areas. The absence of faunal remains in the small sample from this area suggests seal bone, and probably other refuse from shore-edge processing, was disposed of in Stage Cove itself. However, Inuit who frequented the area had dogs which, like the European dogs, are very likely responsible for considerable attrition of the bone (1792 1:111; 2:44, 62).

Only three per cent (n= 12) of the bone showed evidence of gnawing, so the fauna probably reflects deposition mainly by Europeans, not their dogs. Cartwright had separate pens built for his Stage Cove animals and, as with the dog kennels he built at a previous post, the Stage Cove dogs may also have been kept in kennels as well (1792

vol.1:47-55; vol.2:29-31). This containment of dogs could have restricted their movement and therefore reduced their ability to redistribute the bone refuse.

6.6 Dietary inferences

Tables 6.1-6.4

6.6.1 Total faunal sample

The relatively large number of specific skeletal elements can probably be attributed to specific dishes served or cuts of meat. For example, nearly a third of the pig bones recovered were humeri and tibia pieces (n=11/35), bones which characterise the dish called pigs knuckles. Rib pieces were the next most common pig bones, elements which represent rashers of bacon in contemporary pig butchering (Davis 1987:25).

A wider representation of pig skeletal elements were recovered from Feature 3 than Structure Area 1, including mandible and maxilla pieces from both sub-adults and adults (n=3/27) (MacLean 1987:94-100). All of these head bones were burnt, suggesting whole pigs may have been consumed, perhaps as roast suckling pig since pig heads are not a meat-rich or common cut. Finally, thoracic vertebrae, found only in Cartwright's household middens, are associated with contemporary meat-rich pig cuts from the prime back and loin (Davis 1987:25).

The condition of some of the bone also suggests certain food preparation techniques. For example, in addition to smashed bone being used as a flavouring agent it may also represent use in certain dishes, such as "Lobscouse", a dish which combined both Labrador fish and European salt meat. It was "A fish dish...a composition of minced, salted beef, sea biscuit broken small, together with potatoes and onions, pepper &c. Resembling a thick soup" (1792 I:xii, 213). Smashing caribou bone or any kind of bone for this dish is not documented, but if caribou or other wild game was "minced" in place of salted beef, that process could have reduced the original bone into nonidentifiable pieces.

6.6.2 Structure Area 1

The relative abundance of bone from country food fauna from this feature contrasts markedly with the sample's domesticated bone and with the total Structure Area 2 sample. Eighty per cent of the Structure Area 1 sample was of Labrador native animals compared to only 24% for Structure Area 2. Forty-three pieces (78%) of native bird bone in particular, comprised mainly of duck, indicates the importance of avian fauna in the diet of this household (MacLean 1987:132-35). Given Cartwright's love of hunting and frequent *Journal* references to bird shooting, this result is not surprising (1792 2:25, 38-53). Hunting appears to have been an activity in which he, like other late 18th century British gentry, was able to combine sport with provisioning (Porter 1989:918, 924). Not only did Cartwright and his servants regularly hunt birds, but when naval officers or other gentlemen visited Stage Cove or his other posts Cartwright often took them bird shooting (1792 1:48, 167, 248).

In terms of socio-economic status, this emphasis on wild game compares favourably with faunal samples from certain British medieval sites. Bone from wild game often comprises the majority in middens used by the elite living in manor houses or castles, while domesticated stock makes up more of the bone found in refuse dumps used by peasants (Davis 1987:189). Hunting wild game is also a well documented sport of the aristocracy in Britain from medieval times onward. Rather than suggesting a meagre diet, this use of wild game was in keeping with the lifestyle and foodways of the British elite. A majority of country food bone in the household middens of Cartwright, a merchant and ex-army officer with a family estate, appears in keeping with an aristocratic lifestyle.

Finally, only ten bones from Cartwright's household (17%) were domesticated stock, eight (14%) of which were pig and two (3%) cow, a near 5:1 ratio of wild species to domesticated. This abundance of country food fauna is to be expected given Cartwright's clearly stated dietary preference. "I have so great a dislike to salted meat,

that I would rather eat any animal whatsoever that is fresh than the best beef or pork that is salted" (1792 2:146).

6.6.3 Structure Area 2

The faunal assemblage characteristics of this sample differ substantially from Cartwright's house and suggest it is a servant household. Twelve pieces of cow bone made it the feature's primary (71%) species identified, with seal the secondary species. In the case of cow bone, salted meat appears to have been the most important dietary item for many of his servants. Yet, Cartwright promoted the use of Labrador game and fish such as caribou, salmon, cod. Meat from fur bearing animals, such as otter, porcupine, fox and wolf, was also served though it was apparently unpopular. Cartwright did not initially relish eating this local game, but apparently did so as an example to his servants (1792 1:94, 111-13, 282). On two occasions at least they disputed Cartwright's policy of providing country food and indicated that their portions of salt meat and other European provisions were inadequate (1792 1:37, 95).

In terms of season of occupation, the relatively plentiful seal bone and the absence of avian bone in the Structure Area 1 sample a mainly winter occupation. Wild avian fauna are not plentiful on the Labrador coast during the winter, the primary season when seals were taken. Even the relatively large amount of domesticated large mammal bone suggests a mainly winter occupation. This bone probably reflects Cartwright's outfitting of a winter crew with imported provisions, a documented activity (1792 2:24-28). Further, the numerous pieces of band iron from Structure Area 2 probably reflect barrel hoop pieces, perhaps from barrels of imported salt meat. A similar correlation between barrel hoops and imported fauna was noted for the 18th century British occupation of Fort Michilimackinac (Stone 1974:353).

Over half the seal remains came from this feature (n=4), mainly butchered fore and hind limb elements from bear 'ed and harp seals (MacLean 1987:115-16). These are the skeletal frame of seal flippers, considered one of the meatiest seal parts and therefore a

preferred cut of meat (MacLean 1987:24, 57, 115-16). Cartwright records feeding seal only to his dogs and European provisions to his sealing crews (1792 1:111-13, 283). But a faunal sample that includes a relatively large amount of butchered seal bone, only one piece which may have been gnawed by carnivores, suggests seal meat consumption by the Structure Area 2 household (MacLean 1987:115).

Stage Cove was initially occupied in the early 1770s by a winter sealing crew, with the sealer's house the first European habitation there, built in 1771 (1792 1:273). Sealers from the Island of Newfoundland worked at the site alongside Anglo/Irish indentured servants (1792 1:146-49, 176). The former would probably have eaten seal more readily than servants recently arrived from Europe. Therefore, the Structure Area 2 seal bone suggests this apparent servant household may have been occupied by sealers from the Island of Newfoundland.

6.6.4 Structure Area 4

This small sample, characterised by domestic fauna and coupled with a small number of European artifacts, suggests mostly imported provisions were consumed in what may have been a European structure. Yet given the aboriginal nature of this five-sided feature, the bones and artifacts do not rule out a contemporary occupation by aboriginal people eating European provisions (1792 1:138-50; 2:33-34).

6.7 Refuse disposal

Map 1.2

Tables 1.3.6.1-6.3

Pig remains were recovered in relatively large numbers from both Feature 3 (n=27/15% of sample) and Structure Area 1 (n=7/7% of sample). In marked contrast the Structure Area 2 bone sample included only one pig calcaneus excavated from the midden in the feature's south-east quadrant. This range in pig bone number and frequency suggested a special depositional or dietary process.

The single pig bone from Structure Area 2 did not permit fair comparisons between it and the other pig bones. That one bone, if plotted on a graph measuring bone quantity versus site distribution, would be an outlier in terms of horizontal variability of bone survival. However, comparisons between the Feature 3 and Structure Area 1 pig bone seemed fair as their percentages and skeletal element range were proportionally more similar.

In order to determine where the Feature 3 refuse originated, it seemed fair to assume that, based on expediency, the shortest distance and easiest terrain between the structure areas and refuse pits might indicate the source. Structure Area 2 was the closest to Feature 3, separated by approximately 30 m of relatively flat, moss and lichen-covered terrain that permitted easy walking. Structure Area 1 was further from Feature 3, the two separated by approximately 50 m of bush-covered, sloping, uneven terrain through which passage was more difficult. These distance, vegetation and terrain factors initially suggested that bone refuse in Feature 3 may have originated at Structure Area 2.

Alternatively, the number and variety of pig skeletal parts suggested that Feature 3 was used as a secondary midden for refuse generated from Structure Area 1. In this case, no pig bone joins were noted but similarities and differences in the range of axial and appendicular pig skeletal parts suggested a connection. The Structure Area 1 sample included three vertebrae, two limb bones and one each of rib, mandible and phalanx. The Feature 3 bone included a much larger element range with the axial skeleton well represented by nine ribs, three mandible bones and one vertebrae. From the appendicular skeleton there were ten limb bones, one piece each of scapula and ischium plus two foot bones (MacLean 1987:94-100). Though some axial skeletal elements were found in both features, limb, girdle and foot bones of the appendicular skeleton were found only in the much larger Feature 3 sample. Differences in sample size probably account for some of the skeletal range. But the presence and absence of certain axial and appendicular elements appears to correspond. A larger, broader pig bone sample and skeletal element

range from Feature 3 suggests it may have been a secondary midden for the Structure Area 1 household.

The distribution and character of avian bone from Structure Area 1 and Feature 3 offers additional support for such a household-refuse link. Both had relatively large amounts of this bone, 38% for the former feature and 25% for the latter. The burnt condition of this bone was another similar characteristic from both features' avian samples. Sixty-nine per cent of the *Anatidae* from Structure Area 1 and 29% from Feature 3 was burnt, while Structure Area 2 had no avian bone whatsoever (MacLean 1987:15).

The similar bone characteristics between Structure Area 1 and Feature 3 suggests the latter was probably a secondary midden for bone initially disposed of in the hearth of the former. Therefore, Feature 3 appears to have served as a midden for Cartwright's household despite approximately 50 m of relatively rough terrain separating the two. The inhabitants of Structure Area 2 may also have deposited bone there, though they definitely used a midden adjacent to the structure.

South's (South 1977b:179) odorimetric scale seems appropriate in order to explain the apparent refuse connection between Structure Area 1 and Feature 3. The scale is based on the hypothesis that if midden material is found offensive it will generally be deposited some distance from dwellings, while less offensive trash gets deposited nearby. The implication is that a higher ratio of bone to artifacts would be found at a midden some distance from a dwelling, whereas refuse thrown adjacent to a house would have a low bone-to-artifact ratio. If the hypothesis holds for this study, Feature 3 should represent the former category and Structure Area 1 the latter. This prediction is borne out by the relatively high bone to artifact ratio of 3.5:1 for Feature 3 compared with the low, .46:1 ratio for the Structure Area 1 dump.

The burnt condition of some of the bone, a condition which probably reduced its odor, appears to be a contributing factor to this pattern of disposal. For example, burnt

bone comprised 67% (n=29) of *Anatidae* bone and 60% (n=3) of non-avian bone from the exterior west end midden of Structure Area 1 (MacLean 1987:132-35). In the case of Structure Area 2, 31% of the faunal sample from its adjacent midden was burnt (MacLean 1987:61). The close proximity of these faunal remains to the structures may have been due to this bone refuse condition.

6.8 Summary

There was a faunal pathway at Stage Cove that included food processing, preparation, consumption and discard. A small, select sample cannot be considered representative of this pathway as a whole. The sampled areas were mainly domestic middens on the periphery of structures and one small interior midden, the Structure Area 1 fireplace. Some of the sampled areas produced an abundance of bone from a single species while other areas produced only a small quantity from many species (MacLean 1987:57, 145-59). Given this sampling bias, the bone can be considered fairly representative of only some meat eaten, especially imported provisions. But by combining the different lines of evidence on fauna we become, as Schiffer noted, more aware of "...the ways in which refuse element frequencies reflect the system of which they were once a part" (1972:163).

Skeletal elements were recovered from the four domesticated species known to be present at Stage Cove, pig, chicken, sheep and dog. Cow bone recovered probably reflects salt beef, a major imported provision (MacLean 1987:57). The poor recovery of bone from commercially important species such as seal appears to be a factor of documented shore-edge processing. The virtual absence of fish bone such as salmon and cod may also be for the same reason, though screen mesh size and the small float sample would also have skewed fish bone recovery. The virtual absence of caribou is probably due in part to documented off-site processing and the canid diet and, in general, to scavenging of the faunal refuse. Admittedly, these factors do not totally explain the poor

recovery of bone from important country food fauna such as caribou, so some unknown process must be affecting bone from this species.

In terms of specific socio-economic interpretations per feature, the largest site sample of both salt beef and butchered seal bone from Structure Area 2 suggests it was a servant household, perhaps including sealers from the Island of Newfoundland. The large avian bone sample from Structure Area 1, Cartwright's house, is in keeping with his household and his documented passion for hunting.

Chapter 7

Architectural Remains - Functional and Locational Considerations

7.1 Introduction

Diagnostic architectural artifacts including nails, brick and wood are first described per feature followed by a more detailed account of structural remains. Structure Area 1 is the principal source of the excavation data given its greater sample. A synthesis of the architectural and documentary data for this structure follows artifact descriptions, with references made to 18th century architecture on both sides of the North Atlantic. The chapter closes with a discussion of functions the site buildings appear to have performed at this sealing/fishing post.

7.2 Architecture Group: nails

(n=954)

Map 1.2

Tables 7.2-7.6

Plates 7.1, 7.2

The Stage Cove nails were studied as a means of investigating building construction technique and style. A wide range of nail types were used in British colonial structures in North America, with different types performing select functions (Nelson 1968:3; Bugey 1976:94-118). Nail types were studied in terms of potential covariation with the remains of building components such as floors, walls and roofs. Wood associated with nails was also studied in order to investigate whether particular nail types might covary with wood species or shape, such as round or squared timbers.

Bent and curved nails in the assemblage (n=97/10%) were studied in terms of their potential to indicate structural joins. Clinching nails, or bending them at right angles or in sharp curves, was a fairly common technique used during construction of 18th century North American structures (Nelson 1968:6; Noel Hume 1970:252). This modification

was done in order better to secure two or more layers of wood together (Frurip *et al* 1983:45; Nelson 1968:6,8). Clinched nails could potentially indicate the position of specific joins such as floor and exterior wall plates, doorways or interior partition walls (Noël Hume 1970:252; Nelson 1968:6). However, since hand wrought nails are known to bend or curve sharply upon contacting knots in wood due to the weakness of hand wrought iron, bent nails could also be ones discarded as refuse (Light, *pers.comm.* 1987). Most of the bent nails appear to be of that type.

Nail attributes were generally difficult to determine or measure due to the nails' rusted and degraded nature. For example, nail heads, points and shanks were often found separately, a recovery characteristic which limited analysis. These incomplete nails were counted and their provenience noted, but only complete nails and those with identifiable head or point styles were given more detailed study. These attributes, along with length and shape, seemed the most diagnostic in terms of function.

Since detailed analysis of individual nails was confounded by their degraded state, the ones that seemed complete were grouped into size categories according to length. This dimension would obviously reflect functional characteristics in construction such as timber thickness, locations of joins and perhaps their style. Four arbitrary sizes were chosen: small nails are two inches or less (5.0 cm or less), medium nails two to three and one half inches (5.1-8.5 cm), large nails greater than three and one half and up to five inches (8.6-13.2 cm) and spikes greater than five inches (13.3 cm or greater).

In order to study special nail functions, if any, the nails were compared with those from other North American colonial sites, particularly Fort Michilimackinac occupied by the British c.1761-1781 (Stone 1974:1). The nails were also compared with an 1812 British Army nail catalogue (Buggiey 1976:94-118). It was produced in order to facilitate and standardize nail supply to colonial military posts (Buggiey 1976:89-94). The catalogue describes 156 hand wrought and machine cut nails, all drawn to scale and some with assigned functions. For example, there are nails for "Trunk, Lathing, Fine Clout

Best for Coopers, Best Fine Pointed for Canister Shot Case, Best Slender Boat and Sprigs" (Buggey 1976:100-02).

This nail classification was produced much later than the Stage Cove occupation, but functionally distinct British nail types were manufactured throughout the late 18th century as well. The British Army nail catalogue would have been based on earlier forms and, in fact, many of its nails reflect late 18th century types. For example, nearly all the site nail head types matched ones in the catalogue, while in terms of size 86 of the catalogue's 156 nail types fell within the Stage Cove small size category, 45 into the medium, 15 into the large and 10 into the spike category (Buggey 1976:94-118).

In terms of manufacture, the majority of nails are considered to be hand wrought. The degraded state of the nails hampered analysis however, and makes this a tentative interpretation. Yet tapering on both faces of nail shanks and points, evident on most of the nails, is a hand wrought manufacture characteristic (Nelson 1968:6). Further, the bent nails suggest hand wrought manufacture as that type was preferred for clinching since their iron fibre orientation was parallel to the nail shank. This was an advantage over the perpendicular orientation of iron fibres in machine cut nails, a characteristic which often resulted in a break at the clinch point (Fruip *et al.* 1983:45). Machine-cut nails, manufactured from c.1790 onward, were not expected considering the 1770's documented construction of the buildings (Fruip *et al.* 1983:45; Smith 1970:4). Their absence suggests little if any later additions or renovations were done following initial construction.

7.2.1 Structure Area I

Tables 7.2-7.4

Plate 4.28

Fifty-nine per cent of the feature's identified nails (n=75) came from the excavation unit in the refuse deposit outside and adjacent to its presumed west end wall. Rose-type heads (n=97) were the most numerous head type while both small (n=54) and medium (n=51) sized nails were near equally abundant. The numerous rose-type heads suggest

they may have been a common nail used for a variety of purposes at the site. They are found in many British North American colonial buildings and are considered the most commonly made head type of 18th century British nail makers (Frurip *et al.* 1983:44).

An unusual bi-pointed nail or spike with a thick round shank was also found in this area. It tapers at both ends into a fine drawn point, one of which appears somewhat flattened from use. Similar bi-pointed nails called connection spikes were used in simple beam joints recovered from a Danish mission house in Greenland occupied c. 1720 (Gullov and Kapel 1979:138-39). (#1037)

The living floor (level 2) produced the most nails per level (n=129) while excavation units around the fireplace (n=24) produced the most nails per sampled area in the feature interior. The nails from the fireplace area were also the most varied in both head types and sizes. This nail variety may correspond to a more complex arrangement of structural members than along a straight section of wall. Greater variety in nail style might be expected for the bracing and framing of a fireplace, chimney and any surrounding finish work (Nelson 1968:3).

The variety of nail head types from the doorway excavation units also suggest variety in design features. This may reflect the use of hinge and lock hardware or the layered construction of a batten-type door and a doorway frame (Nelson 1968:6; Light, pers.comm., 1987). Further, the recovery of T and L headed nails from the mid-trench and the east end pit, nails used in 18th century floor construction, may reflect the installation of a wooden floor (Nelson 1968:6; Noël Hume 1970:252). The provenience of these nails appears to correspond to the east edge of the dining room, the only room in the house with a documented wooden floor (1792 2:41).

Bent nails found with wood were initially interpreted as clinched, especially if associated with square or round wood pieces. All the modified nails from Structure Area 1 were bent at close to 90° or sharply curved into a J. These came from the feature's west end refuse deposit and some were associated with relatively large wood pieces up to a

metre long and oriented parallel to the feature's long axis. The wood appeared to be collapsed wall studs or boards of a collapsed end wall, squared roof beams, or round posts and poles. The general association of the wood with bent nails suggested clinching. However, since no nails were found embedded in or around the wood pieces, clinching could not be positively determined. The trash dump provenience of the bent nails indicates they were probably discarded as refuse. Similar bent nails were associated with trash and faunal refuse from the Structure Area 2 excavation unit, located in an exterior dump, and those from Feature 3, a relatively large site midden.

Wood samples associated with the nails from the house interior were generally too degraded to determine original shape or original position. Yet in terms of house design, identified wood pieces and their recovery sequence from two interior areas appear to correspond to Cartwright's recommendations for species used to build foundations, floors and drains or wells (Young 1987; *Cartwright Additions*:63). Bent nails, wood samples and their associated features are described below in more detail as artifacts of building construction.

7.2.2 Structure Area 2

Table 7.4

Medium size nails and those with rose heads are the most common for this feature as they were with Structure Area 1. Small size nails and ones with T heads were the next most abundant types. Both the T and L heads suggest this structure may have had a wooden floor (Nelson 1968:6; Noël Hume 1970:252). If it did, it may have been made of spruce, the species identified from the excavation unit (Young 1987). Cartwright recommended that floor sleepers be made of spruce, a species still used for subflooring in Canadian house construction (*Cartwright Additions*:63; Mullins and McKnight 1982:22).

Most of the bent nails had rose heads, the most common site nail head type. Their recovery with bone and other trash indicates they were discarded as refuse, probably bending during normal use. Though not found bent around wood, the nails were associated with spruce, a wood known for its knots (Himmelfarb 1987:16). Since knots

in spruce or any wood can bend modern wire nails during nailing, and since hand wrought iron is inherently weak, spruce knots may have contributed to bending these hand wrought nails.

7.2.3 Feature 3

Map 1.2

Figure 7.1

Table 7.5

Rose headed nails and those of a medium size dominate the nail sample from all levels as they do with Structure Areas 1 and 2. Thirty per cent of this nail sample (n=71) was either curved in a J-shape or bent at or near a right angle, the largest quantity from any of the excavated samples. Their association with trash and faunal remains indicates they were discarded as refuse.

Similar artifacts were recovered from this feature's two main cultural strata, so stylistic dating of midden deposition is virtually the same, c.1770-1780s. Yet more than twice as many nails were recovered from the upper artifact bearing stratum (2A) than from the lower. Both levels were a similar sandy, dark brown peat, but the lower (2B) had less sand and was a more compact, darker brown matrix than the upper level. The differences in nail/matrix association suggests a different rate of nail discard for the two levels. The lower level's lesser nail quantity may reflect the earlier, smaller occupation of Stage Cove beginning in 1771. Assuming discarded nails were deposited throughout building periods at Feature 3, a substantial difference in the amount of building might be expected to produce a noticeable difference in the number of discarded nails. Prior to 1774 the only site buildings were two houses for the shoremen and sealers plus the stage, while that year at least six buildings were constructed (1792 1:133; 2:14-40).

7.2.4 Structure Area 4

Only 13 nails were found in the test unit just outside this feature's north-west edge. Medium size (n=8) and T headed nails (n=5) were the most abundant. Six were bent enough to interpret as clinched, but their provenience in a refuse deposit suggests

otherwise. These nails and a few clay pipe stem pieces similar to others excavated at the site suggest this feature was occupied contemporaneously with the rest.

7.2.5 Nail discussion

Machine cut nails, used in North American buildings by c.1790, were not identified. It appears then that no renovations or additions were built following the 1770s construction, at least in the sampled areas. Nail types and wood species do not appear to be directly correlated since a mix of nail sizes and head types was always noted where nails and identified wood were recovered together. In other words, no specific size or type was consistently found with a particular species. A full scale excavation of the feature plus the recovery of a larger wood and nail sample might alter this interpretation.

Twenty-three per cent ($n=75$) of the feature's complete nails came from the west end refuse deposit as did all eleven bent ones. This relatively large number and their midden provenience suggests nail recycling was not practiced to any great degree, especially given the much larger number of nails from Structure Area 2 ($n=259$) and Feature 3 ($n=236$), both refuse deposit samples. In turn, this apparent waste of used nails suggests house construction was not constrained by nail supply.

If so, Cartwright's Stage Cove house probably reflects extra building effort expended for a merchant's dwelling compared with a servant's. The much greater size of Structure Area 1 versus Structure Area 2 suggests this, especially since many more nails would have been used in the former house. Its size, documented wooden dining room floor and its large fireplace/chimney appear to be at least three design features indicative of extra effort.

A greater supply of nails during the 1774 building episode may also have led to greater nail use and wastage then. During other house building episodes Cartwright complained about nail shortages. This situation resulted in substituting wooden pegs for nails, burning abandoned boats for nails, building a house smaller than desired for lack of

nails and scavenging abandoned buildings for timbers, and presumably any other useful building hardware (1792 1:38, 174; 2:20; Townsend 1911:253).

7.3 Bricks and mortar

Structure Area I

Plates 7.3, 7.4

The following examples are a representative sample of the hundreds of pieces of brick and mortared stone used in chimney construction. These materials were not included in the artifact pattern analysis, in keeping with accepted methodology, as their quantities vary considerably at archaeological sites as a result of abandonment and post-occupation use or destruction (Joseph 1989:60).

A thick, somewhat trapezoid-shaped slab of grey and white sedimentary rock, measuring 11.0 x 10.5 x 5.1 cm and covered with streaks and patches of mortar, was recovered from the west half of the chimney rubble. The use of this piece in construction is indicated by its mortar patches, overall shape and interior fireplace provenience.

(#1046)

A small purple brick fragment measuring 6.5 x 6.1 x 2.1 cm and with yellow patches and streaks, was excavated from the south-west corner of the chimney rubble. It has two small, smooth patches of finished exterior along two edges but the rest of the surface is absent, exposing a broken and cracked interior pocked-marked with holes. Based on its distinct purple and yellow colours (Munsell 10R 4/1 dark reddish grey and 2.5 Y 8/4 pale yellow, respectively) and on its texture attributes this brick fragment is probably a hand made water-struck, soft-mud stock brick (Gurcke 1987:127-28). (#1047)

These bricks were very likely imported since Cartwright recorded importing them while living at his Ranger Lodge post (1792 1:22). The composition of the Stage Cove bricks also suggests a British origin. London brick-makers in the 18th century used fireplace debris plus coal dust or breeze collected by scavengers as brick temper. This combination of coal dust and garbage included clay pipe fragments, nail fragments, chalk

and sea shells. The mixture produced a brick whose "composition and dark dirty yellow and purple coloring...make it unmistakable" (Gurcke 1987:127-28).

A relatively long and narrow brick corner fragment excavated here measured 10.5 x 6.2 x 3.7 cm. It had a cylindrical hole oriented at a diagonal to the long axis of the fragment's length. The hole suggests a piece of organic material such as wood, burnt out during the firing of the brick. This smooth fragment, found in fireplace rubble in the south-west corner, is primarily a dull yellow colour (Munsell 10 YR 7/4 very pale brown) with light purple streaks at regular intervals, similar to stratigraphic layering. The regular coloured streaks are probably the layers of different colored sand, clay and other materials that comprise the brick. Its internal and external attributes suggest this fragment is probably from a hand made water-struck, soft mud stock brick (Gurcke 1987:103-06). (#1049)

A relatively large, some what squared brick piece measuring 7.5 x 9.0 x 4.3 cm and mainly pale yellow with streaks and patches of red, was also found in the south-west corner fireplace rubble. One side is smooth with small parallel lines on the surface aligned with its short axis while the other surfaces are rougher. The interior is rippled in wavy bands of pale red and yellow. This appears to be a hand made sand-struck, soft-mud stock brick based on colour and texture (Gurcke 1987:103-06). (#1050)

7.3.1 Miscellaneous architectural artifacts

Structure Area I

Plate 7.4.7.6

Two pieces of mortar measuring 8.8 x 5.4 x 3.9 cm and 5.0 x 2.7 x 1.5 cm, respectively, were found in rubble of the fireplace south-west corner. The larger has an imprint of wooden stick along part of its length, and both pieces are light grey with a coarse sand exterior. (#1060)

Feature 6

A few pieces of what may be pitch or tar were recovered from test units in Feature 6 along the Stage Cove shore, one of which was experimentally burnt. It did not burn slowly like coal but was quickly consumed by the fire, producing a very hot, smoky flame. Two nearly identical pieces from Structure Area 1 were analysed and found to be coal tar or coal tar pitch (Miller 1988). One of these was recovered from a moss matrix in the east end of the living floor. This association of tar/pitch with moss may reflect Cartwright's roof layers, while the material from Feature 6 resembling coal tar or coal tar pitch may also have been used as boat caulking. Boat caulking was the function of similar looking pitch from a Danish house site in south-west Greenland, occupied c.1720 (Gullov and Kapel 1979:148). Further, the Feature 6 area is a potentially good shore edge location for boat maintenance or storage as well as for a stage.

Finally, a clay pipebowl piece and pieces of ballast flint were recovered within degraded bricks in the feature. The pieces of bowl and flint are documented 18th century brick temper material, and their provenience in a brick mush matrix indicates such a use (Gurcke 1987:127,128). (#1061,1044)

7.4 Architectural features: archaeology and documentation

Given the relatively close fit of the inside edge dimensions with the documented ones, Structure Area 1 is Cartwright's house. From the inside edges of the feature's raised border the building depression width is eight metres, which measures quite favourably with Cartwright's measurement of 25 feet or 7.6 m. The single doorway, the large end wall fireplace and the long, rectangular shape all correlate well with Cartwright's account, while artifact dating generally corroborates a c.1770-1780 occupation period (1792 2:24).

7.4.1 Foundation

Map 1.2

Figures 4.1, 4.2, 7.2

Table 7.5

Plates 4.1-4.3, 4.7, 4.8

The parallel ridges delimiting the feature are probably the remains of the matrix removed from the building site in order to form a solid foundation. A mix of numerous sand lenses and peat layers was noted in the section profiles of the feature's north-east and north-west corners. This mixed stratum appears to correspond with Cartwright's recommendation for removing the topsoil from a house building site and then laying down a "ground skin of stones and gravel"...upon which will rest the "planks for the foundations of the outer walls and partitions" (*Cartwright Additions*:63).

The ridges do not appear to be remains of peat slabs used as an exterior layer of insulation, a practice which Cartwright followed with some of his buildings (1792 2:20-21, 37, 118). A homogenous peat matrix would have been expected as a result of stacking peat. Therefore, the depression and raised edge of Structure Area 1 was probably formed as a result of scraping the slightly sloping building site and piling its sand and overlying peat as a border. Scraping appears to have left a relatively distinct step-like edge in places while piling resulted in a more slumped border. Sill beams and the house frame they supported probably rested directly on the prepared sand and gravel base within this border.

Structure Area 1 measured 78 feet or 23.8 m long, excluding the fireplace, but the house was probably only 70 feet long as documented. The 78 foot length measure is based on the east-west extent of the parallel ridges marking the north and south sides of the feature. The fireplace feature probably marks the east end of the house since it is positioned at the extreme east end of the level, prepared building site. In addition, the area further east slopes at approximately 10° and is covered by a thick matrix of moss and peat. Few artifacts were recovered during test excavation here, so this area was probably not used as part of the original building. It is not clear what the low ridge of peat beyond the chimney represents. It may have been some sort of shed or outshot for storing wood

since the matrix in the excavation units here had a relatively large amount of wood chips. This area appears to be a good location for wood storage since it was the backside of the chimney.

Excavation at the feature's west end did not uncover a definite end wall or foundation but only a refuse deposit with scattered wood remains, both cut and broken. The absence of a clearly defined west end complicates determining the actual amount of building site used. Yet artifacts were excavated in situ from the living floor 11.5 m west of the fireplace in the southwest quadrant of Structure Area 1, and from a disturbed area 1.5 m further west. Assuming the original provenience of the latter artifacts was also the living floor, then the house west wall was located beyond this point at least 13 m or 42.5 feet west of the fireplace.

Although the west end wall position was not determined, the size of the prepared building site appears longer than required for Cartwright's house. This interpretation is based on the space enclosed by the north and south ridges, the west end refuse deposit and the east end fireplace which frame the feature. The discrepancy between the 78 foot plus feature length and the 70 foot documented house length appears to be due more to initial building site preparation than any unrecorded additions or renovations.

7.4.2 Walls/floor

Figures 4.3, 7.2

Plates 4.2, 4.8, 4.11, 4.24

The house walls were made of two layers of vertical posts infilled with clay and moss and sheathed with various materials such as squared logs, sawn boards or heavy paper (1792 2:14, 34, 64). No definite remains of these walls were discovered, but matrix differences near and along their probable positions on the feature's north and south sides suggest their location. Excavation across supposed wall lines encountered patches of compact sandy gravel and peat compared with somewhat looser, sandy gravel inside of the compacted matrix and layers of both peat and sandy gravel outside. The more compact matrix along the feature's north and south edges were approximately 50 cm

wide. This dimension corresponds fairly well with the documented wall width dimension of six inches. The house had an exterior width of 25 feet and an interior width of 24 feet (1792 2:24). This 12 inch difference would very likely have been divided evenly between the north and south walls (1792 2:24).

A collapsed west end wall or roof section was suggested by the recovery of relatively large pieces of degraded timbers measuring between a half and one and one half metre long. They were generally oriented east-west across the west end excavation unit, with smaller ones scattered throughout. The east-west orientation and roughly parallel alignment of the larger pieces initially suggested tumbled wall framing or sheathing. However, much of this fragmented, degraded wood appeared to be deposited in two strata with late 18th century glass, iron and leather artifacts mixed throughout. The lack of distinct joints or layers to this material and its mixture with refuse and trash indicates deposition as refuse more than wall remains.

Alternatively, the larger pieces of wood may reflect the use of a scaffold or brace, especially since they were associated with the 3.9 kg iron counterweight. During the 17th and 18th century British tradesmen such as masons erected temporary outshots or lodges against the structures on which they were working (Braun 1962:96). Cartwright's mason may have helped build such a temporary structure as did 17th century British bricklayers and late 19th and early 20th century mason/wall builders (Braun 1962:85; Innocent 1971:120).

Bracing a temporary building or scaffold during construction would probably have been just as necessary as bracing a wall, especially at an exposed building site. During the 63 day house construction period the wind blew from a westerly direction on 38 days, the same compass direction which produces the strongest summer winds today (1792 2:11-64; Banfield 1981:84, 108). Since the iron weight and wood were found at the feature's west end, the weight may have helped to better secure the building during construction. Weights are still used today by builders in the Stage Cove area during

house frame construction (Paul Pye, pers. comm., 1986). The bent nails found with the counterweight and wood, their only provenience in the feature, may also reflect the expedient construction assumed for rough bracing or temporary scaffolding. If actually clinched then their appearance, not their function, may reflect rough exterior work of an inferior quality not permissible in the house interior.

A probable interior wall was indicated by a small, narrow V shaped trench measuring 270.0 x 18.0 x 8.0 cm. It was dug into the subsoil approximately 7.3 m or 24 feet west of the east side of the fireplace rubble mound. Pieces of what appeared to be architectural wood were found within the trench. It is probably a footer trench for a floor or wall sleeper with the wood pieces the actual sleeper. The V shaped trench was oriented north-south or across the structure, and scattered along its length were pieces of wood and fragments of a yellowish-brown paper-like material. The wood fragments appear to be the remains of a long, narrow piece of wood, perhaps a narrow beam or board on edge. Partially covering the wood at the trench's south end were a few pieces of yellow brick and some window glass.

A floor sleeper and/or wall base at this location is inferred from Cartwright's description of a kitchen and dining room adjoining each other 24 feet west of the house's east end, where a partition wall dividing the two rooms was probably located (1792 2:24). The base for this wall probably rested on or in the ground as Cartwright recommends resting the "planks for the foundations of the outer walls and partitions" on a "ground skin of stones and gravel" (*Cartwright Additions*:63). Therefore, the trench and wood are located where an interior wall dividing the kitchen and dining room would be expected.

Yellowish-brown paper-like material was also found overlying the small trench and along its edges. Pieces of a similar material were also recovered from the house feature perimeter at its south-west corner. The material from the footer trench was too degraded to permit positive identification (Miller 1988). Yet its provenience suggests some kind of wall covering. Cartwright used an unknown kind of paper as a sheathing on the south

wall and roof of his house. He also records "paper"ing a dining room wall in one of his later houses and recommends using "brown paper" on house exterior walls (1792 2:13-14, 64, 129; *Cartwright Additions*:63). Given this documented use of paper, the material may represent its residue. If so, it indicates either an inside use for what was probably a kind of heavy sheathing paper, or an interior wallpaper. Commercial production of British wallpaper dates to the mid-18th century (Hayward 1925:67).

7.4.3 Cellar

Figure 7.3

Plates 4.4, 4.5, 4.25

The east end pit feature measured approximately two metres in diameter by 60 cm deep, with a slight rim of less than 10 cm above surface and a small boulder along the south side. It is probably not an internal midden since no bone or burnt refuse was recovered, but it may have been an undocumented small cellar or cache.

The pit and rim strata were composed of a mixture of sand and peat lenses, the latter filled with moss. The strata surrounding the pit generally appear to be in inverted order to their natural position, that is, the layers of sod and peat were covered with the lower layers of sand. This indicates that the pit was at least partially dug out and not solely a natural feature or an artifact of building site preparation, such as a boulder hole left after the removal of rocks.

Stylistically the pit assemblage appears contemporaneous with that from the rest of the site. It included numerous small, thin iron flakes, a piece of unidentified paper-like material, a few pieces of degraded wood and a few small nails, all from the upper levels. A concentration of small orange-red brick fragments was noted on top and alongside the wood pieces. A few more degraded pieces of wood were found deeper in the pit overlying a grey sandy, sterile matrix. These were oriented north-south and aligned in linear fashion as with boards. Scattered throughout were a few pieces of lamp, window and green bottle glass plus more brick fragments. The artifact distribution indicates deposition during occupation of the house, though some artifacts may have been

deposited following abandonment.

The wood samples from the pit, the most varied of the site, do not represent layers of wood but only samples from different levels. From pit bottom to top the species sequence is oak, pine, spruce, a non-identified type, a softwood and pine (Young 1987). The deepest pieces, possibly board remains, could be from "stanchions" which Cartwright advises framing a cellar (*Cartwright Additions:63*). Alternatively, they could be floor remains, especially the bits of spruce recovered overlying oak from the lowest stratum. Cartwright advises use of oak or larch for floor supports and sleepers of spruce (*Cartwright Additions:63*).

Two metres east of the pit a small, semi-circular shaped piece of degraded oak (#1070) was recovered from the living floor. It resembles part of a small barrel or pail end, perhaps the size of small casks. Cartwright stored rum in casks somewhere at Stage Cove, and also bottled off rum from those casks (1792 1:197; 2:13). The green bottle glass from the pit appears to be of a liquor bottle type (Jones 1986). Cartwright might be expected to cache liquor and other valuable supplies in his house given his complaints of servant drinking. Further, vegetables grown in the site garden and perishable supplies imported from Europe would have required frost-proof storage space. A cellar would have been a useful feature for protecting these perishable provisions from the cold.

If the pit was used as a cellar, its position in the dining room seems the most appropriate house location since it was the single room with a documented wooden floor (1792 2:41). This floor would have served as a cellar cover while increasing the pit's depth and consequently its storage space. Moreover, cellars in Britain during this period were commonly located in the parlour or living room, a room which usually had a board floor (Barley 1986:251).

7.4.4 Fireplace

Map 4.2

Plates 4.6, 4.7

The large fireplace and chimney made of brick and mortared cobble stone dominated the east end of the house. No intact part of the fireplace or chimney was located but five relatively large, thin flagstones or paving-type stones were encountered in the south-west corner, the largest of which measured 60.0 x 45.0 x 5.0 cm. They were found in a greasy, black peat matrix with many fragments of brick, glass and clay pipes plus a considerable amount of faunal remains and nails. The stones appear to have been part of the hearth border.

All of the flagstones were covered by fireplace rubble which sloped away from the fireplace centre as would a tumbled wall. This rubble was encountered in all the fireplace excavation units located along its west and south sides. The rubble included yellow, orange and purple bricks plus brick-shaped stones partially covered in a mortar matrix of fine, whitish grey sand and gravel.

The mason-built chimney stack was probably made of brick and/or stone at the point where it passed through the roof. The wood and mud chimney of Cartwright's previous house commonly caught fire, a problem he apparently corrected by building a chimney of non-flammable brick and mortared stone in only a single storey house (1792 1:38-43). The fireplace height is unknown as is the height of house rooms and roof. A single room height of between two and three metres is probable since the building was a single storey without a loft. In turn, a fireplace mantle height of 1.5 to 2.0 m seems likely, especially since many fireplaces of the time were large enough to have benches positioned within the hearth area (Braun 1962:91-92; Mannion 1974:150, 161).

The full height of the single documented chimney may have been three to four metres. Fragments of yellow brick were found overlying wood pieces in the footer trench west of the fireplace. They were also recovered in and near the east end pit up to seven metres west of the fireplace centre. These sherds suggest that at least part of the chimney

fell westward toward the house interior scattering bricks in that direction (1792 2:2-40). Most of the house was probably collapsed and/or scavenged by that time, an inference based on the brick sherds in the footer trench. These could not have been deposited in the trench if a floor or partition wall was still in place.

Most if not all of the fireplace was positioned inside the east end wall based on wall and architectural remains found near the chimney. The surface features east of the chimney base which resemble footings or building corners appear to be the remains of a wood storage area as they are too small and distant to have served as house remains. The main southern raised border of the house feature extends eastward to at least the middle of the fireplace depth. Pieces of architectural wood from either an interior drain and/or well were excavated one metre north of the fireplace at a point in line with the middle of its depth. These features near the fireplace midpoint suggest that at least half the chimney base was contained within the end wall of the house.

7.4.5 Windows

Map 4.1

The greatest concentration of window glass (n=178) was recovered from the southwest corner of the house feature. Two smaller clusters came from the fireplace area/east end pit (n=56) and the west end refuse deposit (n=95). The largest glass concentration suggests a window, probably in a bedroom since all the documented bedrooms were at the house's west end (1792 2:24). A large window was often located in the master bedroom, "the chamber of estate" of 18th century houses of the British gentry (Braun 1962:112). Associated with this window glass were pieces of a thin, yellowish-brown material ranging from 5 to 25 cm in diameter. This material appeared to be the remains of the "drab-cloth or swan skin flannel" which Cartwright recommends attaching to window edges in order "to exclude the wind" (*Cartwright Additions*:63). However, the size of some pieces seemed too large for that function and suggested instead that they were part of a wall covering. Cartwright noted applying paper to his house wall in this area, though it is not clear whether on the exterior or interior. This yellowish-brown

material then may be the remains of a wallpaper covering, perhaps applied near a bedroom window.

The refuse deposit window glass was mixed with other refuse so it is not clear if the west end house wall had a window. The glass cluster between the fireplace and the east end pit may reflect an end wall window near the chimney, or possibly one in the roof. This sherd scatter was approximately three and one half metres in from the exterior walls and five metres west of the fireplace centre. There was no definite sherd trail or scatter however, in the surrounding excavation units so it is difficult to trace the source. A narrow grooved iron piece resembling a window glass pane frame was also found in the south-west corner of the fireplace rubble (Davies 1973:81).

An end wall window might explain the sherd cluster since Cartwright describes long halls or galleries with windows, but not if his Stage Cove house had such a window. He also recommends installing a skylight, preferably made of "thick, naval glass," in dimly lit halls or galleries in order to improve the lighting provided by a single window (*Cartwright Additions*:63). The thickness of the glass fragments recovered west of the fireplace averaged the same as the feature's other window pieces. Therefore, neither an end wall window near the chimney or a skylight west of it could be confirmed. The use of either in the house would help explain the relative concentration of window glass.

7.4.6 Doorway

Map 4.1

Figure 4.1

Plate 4.3,7,8

A gap in the raised south perimeter of Structure Area 1 indicated a doorway. A layer of fist-sized cobbles or larger was encountered in this area, approximately 1.5 m in length, at least the 1.0 m trench width and 25 cm thick. This appears to be an artificial sub-floor for the doorway and porch (1792 2:29-30). Some of the rocks appear to be water-worn beach cobbles, probably placed in order to provide a more solid base and better drainage than peat or gravel would provide.

The cobbles were covered for the most part by a thin layer of very fine, black sand with the house feature's main artifact bearing stratum immediately above. The surface mounted door lock and key recovered from this layer at the south end of the cobbles indicate a former door, though no wood remains were recovered. The artifact provenience above the cobble layer and within a peat and sandy matrix suggests the hardware was removed from the door at some time following abandonment of the house and discarded on the spot.

Assuming the house door was similar to then contemporary board and batten style, its layers were probably connected with numerous nails and it would have swung on at least two hinges. This hardware and the effort expended to build the door probably made it valuable for recycling. It may have been scavenged for reuse since no door or hinges were recovered, only the lock, key, a few nails and a long piece of bar iron. The lock and key in the doorway suggests they were discarded there, a situation which may have occurred sometime after the summer of 1779 when Cartwright noted all of the houses "shut up" as they had been since the spring of that year (1792 2:485).

No evidence for the porch shape, size or building materials was recovered. This lack of surface or sub-surface remains suggests the porch was made of wood as a stone or brick foundation would have been noticed at surface or during excavation. Cartwright's porch for his Ranger Lodge house was made of at least wood battens and clay, materials which would have facilitated attachment to the vertical stud walls (1792 1:175). Using the same style and materials would probably have made the porch easier to build compared to other contemporary building styles such as notched logs (Mannion 1974:162). A porch similar in style and materials would also have resulted in a tighter, less draughty fit than one notched or mortise and tenoned into the house.

7.4.7 Roof

Figure 7.3

Plate 4.5

The assemblage from the east end pit feature and the recovery sequence of materials suggest the type of building materials used in roof construction. Fragments of a dark brown paper-like substance lay on top of board remains in the upper levels of the pit and more thin, linear-shaped concentrations of wood fragments resembling boards overlay this material. A piece of brown resinous layered material found on the living floor approximately a metre south of the pit has been positively identified as coal tar or coal tar pitch (Miller 1988). Cartwright used "pitched paper" on the roof boards of his house and recommended using "brown paper, pitch, tar and moss" as well as "boards and a coat of sods" for roof covers on Labrador buildings (1792 2:13; *Cartwright Additions:63,33*). The artifact excavation sequence and documented use of building materials suggests these items are likely roof remains. Other wood pieces recovered lower in the pit may represent floor remains.

The roof shape could not be determined but it may have been a shallow pitched roof since it was a single storey house without a loft. Cartwright recommends this roof style with a centre ridge pole for a wide house and a shed roof for a narrow house (*Cartwright Additions:63*). Measurements that would distinguish these styles are not recorded.

7.4.8 Drain/Well

Plates 7.7,7.9

A drain or well may have been dug into the peat at the north-east corner of the kitchen, approximately one metre north of the midpoint of the north rubble wall of the fireplace. Two kinds of unidentified wood abutted each other there at a depth of 25-50 cm in an exceptionally thick deposit of peat. The pieces appeared to be the remains of posts and boards which were oriented perpendicular to each other. The feature is probably not a midden given the wood's position and the very few artifacts recovered, only in the upper 10 cm. Alternatively, it may be an undocumented well or drain. A privy is also a possibility, though probable odor within the house from its use suggests an

exterior privy would be more likely. A well, according to Cartwright (*Cartwright Additions:63*), should be dug inside the scullery of a merchant's house "as deep as the ground will permit" and lined with planks of oak, larch or birch, with a pump installed on top. Since little fresh water appears to have been available on the ridge-top near his house, an interior well would have been a useful feature.

Cartwright also mentioned the need for a drain to remove wash water and recorded building house drains around various structures in order to remove runoff (1792 1:35; 2:115; *Cartwright Additions:63*). The latter may be reflected by the shallow, surface groove located beyond the north-east corner of the house feature, five metres east of the wood remains described above. It measured approximately 2.5 m long by 50 cm wide by 10 cm deep, with its long axis oriented east-west in rough alignment with the wood in the excavation unit. Therefore, the wood may represent part of a drain or well lining with the shallow, sloping trough the drain for the well, a separate drain for house runoff, or both.

7.4.9 Refuse deposit

Figure 4.3

Plate 4.8

The feature's large west end excavation unit produced the overwhelming majority of all artifacts. The assemblage included a shoe, numerous sherds of glass, ceramics, assorted metal pieces, faunal remains plus many nails. Further, the recovery here of all of the bent nails from Structure Area suggests most of the nails were discarded as used, or were discarded within wood. Trash dumping appears responsible for the assemblage.

7.4.10 Structure Area 2

Map 1.2

Figure 7.4

Plate 1.4

This feature's size, position and assemblage suggest it is very likely one of the documented servant houses. The nails with T-shaped heads and the wood sample identified as spruce suggest the structure had a spruce floor or at least that spruce was used as building material. The relatively small pieces of wood recovered could not be clearly identified as architectural. There was also little charcoal recovered in the small

sample. The relative absence of architectural wood pieces and charcoal suggests the house did not burn down. It may have been heavily scavenged at some time following its abandonment, as suggested for Cartwright's house.

The feature's shape suggest the former building was more square than rectangular. No wall or doorway remains were identified, but there may have been a doorway in the south wall of Structure Area 2 based on refuse location and on comparison with Cartwright's house.

Cartwright's house had only one doorway along its south wall at its south-east corner. This house and the others at Stage Cove were principally occupied during the winter, the season when the surrounding ground was frozen (1792 2:32-89). These conditions would probably have prevented trash from being buried, while trash removal in general would probably have been more difficult during the winter than summer. Cartwright's single April 1774 reference to trash discard and cleaning in and around his house coincides with the period when snow surrounding the building would probably have begun to diminish (1792 2:67).

The trash dump at the west side of his house appears to represent use of a "toft" (Lewis 1976:101-09). On both sides of the Atlantic the toft was the principal activity area surrounding 18th century British households. Refuse in British tofts is found at the rear of households, as it is in colonial American tofts. In the latter refuse is also found along the house sides, an expanded zone interpreted as reflecting a more dispersed settlement pattern (Lewis 1976:105).

The trash dump at the west end of Cartwright's house may reflect, at least during the summer, the use of an expanded toft. If so, a trash toss zone or pathway can be inferred to have linked the dump with the house, especially its doorway. This doorway would then have been one end of the refuse toss zone, a zone which was probably shortened during the winter by snow-covered, frozen ground.

Winter trash removal was probably restricted for the inhabitants of Structure Area 2 house as well. If so, their refuse toss zone was probably shortened, causing trash dumping closer to the doorway in winter than summer. Therefore, a doorway may be within a few metres of the midden in the feature's south-east quadrant, perhaps along the south wall of the former house.

Only a single house doorway is assumed for the building, based on construction expediency and on comparison with Cartwright's house. Many of the houses were built during the busy summer fishing season, yet house building was a time consuming activity which prevented the servants from working at the fisheries (1792 2:11-21). Therefore, it seems unlikely a servant's house would have had two doors or any architectural features that were not absolutely necessary, especially since the merchant's house had only one door. A single door may also have been considered advantageous in terms of heat control. Cartwright's south wall doorway was in the best position to take advantage of winter sun.

7.4.11 Structure Area 4

Map 1.2

Plate 1.6

Little can be said about how this former structure was built. An entrance way may be reflected by the singular gap in the north-east corner of the feature's rim. Further, this gap was only four m from the refuse deposit just outside the north-west part of the rim. Since most of the feature's assemblage was recovered from the refuse deposit, the short distance separating the dump and the possible entranceway may represent a toss zone of refuse discard. The feature's small artifact assemblage, nails, a single pipestem, bottle glass and faunal remains, suggests European domestic activity. Yet, the pentagonal shape suggests aboriginal cultural affiliation, perhaps Innu, (Lee 1965; Samson 1976).

The site location of an aboriginal dwelling called the "Indian House," occupied at least during 1774 and partially burnt that year, is unknown (1792 2:33-34). The documented terms "house" with a burnt "roof" suggest "the Indian House" was probably

a European-type building, presumably square or rectangular. Yet this documentation and the few European artifacts from Structure Area 4 are inconclusive evidence for assigning the feature a definite cultural affiliation or of determining whether it was occupied contemporaneously with the rest of Stage Cove. The former structure, if a European building, may have served as an animal pen, some other farmyard-type structure.

7.4.12 Feature 5

Map 1.2

Plate 1.7

No structural or cultural remains were encountered in this feature during testing. The provenience of its assemblage is weak since most of it was found either eroding out of the shore's landward edge or on the shore. A trade bead, a few retouched chert flakes and a retouched bottle glass base sherd indicate contact with aboriginal groups. The mould-pressed trade bead is identical to one recovered from Structure Area 1. The retouched glass was found in association with 44 pieces of wine bottle glass (#1091), one transparent piece and one crizzled piece scattered along the bedrock shore. The association of glass and bead, the latter with an identical example in Structure Area 1, suggests this feature's assemblage is contemporaneous with the documented occupation. The general similarity of the bottle glass to that found in the structure areas and Feature 3 supports this interpretation.

7.4.13 Feature 6

Map 1.2

Plate 1.7

The apparently unaligned concentration of brick sherds and mush marking this feature suggests it was used for brick storage, not as a foundation or part of a structure. The brick concentration was encountered 5.0 m inland from the shore edge and approximately 1.5 m above sea level in uneven ground with about a 10° slope. A clay pipebowl fragment and pieces of ballast flint were recovered within this matrix, both of which are documented brick temper material. Other artifacts from the numerous shore edge test pits included pieces of lead, a pitch-like material and wood. Some wood pieces were sawn and additional pieces were recovered with lead fragments from the test pits

scattered within a 30 x 10 m area paralleling the shore, 1.0 m above sea level.

The location of the stage and fishing rooms is unknown as are shore-edge locations for activities such as boat building and plank cutting for making seal fat melting vats (1792 2:12-33). No structural remains were visible at surface and none were encountered below ground during testing. However, the cut wood, lead and pitch-like material found along one of the few sections of shoreline suitable for hauling boats out of the water or building shore facilities makes this a likely area for both those facilities and activities. The 17th century fishing stage and flake area on Damariscove Island, Maine, and Feature 6 have similar topography, a bedrock edge which drops off sharply at the shoreline, behind which is relatively level terrain suitable for flakes and fishing 'rooms' (Faulkner 1986:86-88).

7.5 Architecture summary

Maps 1.2.4.1

Given that excavation at Stage Cove was limited, only the architecture of Structure Area 1 can be described in any detail. The architectural data recovered here can neither confirm nor dispute much of Cartwright's house construction record. Compared with his descriptions of buildings however, some details can be confirmed and others inferred.

7.5.1 Documented features

Plates 1.1-1.7, 4.1-4.8, 7.7-7.10

1. Long, rectangular house shape; the raised north-south perimeters were clearly visible at surface, with interior dimensions between them comparable to those documented. The shorter east and west ends did not have raised perimeters, especially the latter. It was marked only by a thick cluster of vegetation beyond a relatively level, sand and gravel surface. In contrast, the remains of a large fireplace served to delimit the east end, beyond which the building site began a gradual slope down to Stage Cove.
2. Kitchen fireplace; a nearly square mound of brick and mortared stone with a central cavity was positioned at the feature's east end.

3. Single doorway; marked by a gap in the low ridge marking the structure area's south perimeter and south-east corner.

4. Interior wall; wood pieces in a narrow trench in the subsoil, probably a footer trench, oriented across the feature's east end at approximately the documented point dividing the kitchen and diningroom.

5. Roof, with a layer of tarpaper; fragmented, dark brown paper-like material was recovered overlying wood pieces in the upper strata of a small pit in the feature's east end.

6. Dining room wooden floor; wood fragments were found below the wood pieces associated with the paper-like material in the pit's lower strata.

7.5.2 Non-documented features

1. Foundation; appears to have been no more than a fairly level, rectangular depression made up of sand and gravel either deposited from the surrounding area or as subsoil uncovered during removal of the overlying peat and moss.

2. Paper sheathing; pieces of an unidentified yellowish-brown, paper-like material were found along the south-west corner perimeter, probably a bedroom, and in the trench marking the kitchen/diningroom partition. The use of paper as a wall sheathing is documented at these locations.

3. Windows; a cluster of window glass recovered in the feature's south-west corner associated with the paper-like material. A second concentration came from the east end pit, indicating either an end wall window or a skylight in this area.

4. Refuse deposit; a concentration of artifacts, faunal material and architectural wood pieces beyond the feature's west end.

5. Cellar/cache pit; a small, shallow pit located in what was probably the house diningroom, the only one with a wooden floor.

6. Exterior drain; a shallow, narrow U-shaped trench adjacent to the feature's exterior at its north-east corner and extending beyond the fireplace, with a noticeable dip to the east.

7. Wood-framed well or interior drain; cut wood pieces found relatively deep in the feature's north-east corner, oriented nearly perpendicular to each other.

No post molds or major architectural wood pieces were encountered that indicate the type of frame erected. However, based on Cartwright's references the frame probably rested on sill plates with inset vertical posts in mortise and tenon fashion, especially at the corners. A few major posts would have joined the sill plate with the roof plate while shores, or beams on a diagonal, braced the posts (1792 2:11-64, 99; *Cartwright Additions*:63).

7.6 Architecture discussion

7.6.1 Regional comparisons

Map 4.1

Plates 1.2.1.3, 7.9

Only Structure Area I architecture can be discussed in any detail given the exploratory nature of the site sample. Much of the winterhouse remains and documentation suggest 17th century architectural design rather than 18th century. The long, rectangular shape and the 24 foot interior width is similar to British long houses of the 17th century and earlier (Braun 1962:84). Other 17th century British house features are the east end chimney probably built into the end/gable wall, the single off-centre entrance into the kitchen area and the large kitchen-living room, which possibly included a pantry or wash-house set directly upon the ground surface (Braun 1962:86-90, 122, 130). These features reflect a Renaissance design characterised by asymmetry compared with the more symmetrical arrangements of late 18th century Georgian Age design with central entrance doors and fireplaces (Braun 1962:112-21; Stell 1965:18-19).

An additional house style which compares favourably with Cartwright's is that of

17th and 18th century British hunting lodge guest houses (Barley 1986:217-19). A good comparative example is the guest house at the Averham Park Lodge, built c.1720 in Cartwright's home county of Nottinghamshire (Barley 1986:217). This house, adjacent to the lodge proper, was a long, rectangular two storey building approximately 60 x 20 feet, with a flat roof and chimney at one end (Barley 1985 5:616-17). Cartwright's house is quite similar in shape and chimney position, and perhaps roof design, as are his plan drawings of a long, rectangular Labrador merchant's house (*Cartwright Additions*:33). Moreover, he would have made his Stage Cove house two storeys high, as with the hunting lodge guest house, had he not been concerned about the danger of fire (1792 2:24). It appears this second storey would have contained the six bedrooms he subsequently placed on the first floor.

Cartwright was probably familiar with the Averham Park guest house given its location in his home county. Further, he employed a former keeper of the estate as a servant at his Ranger Lodge post (1792 1:30). He also appears to have been friends with the Sutton's, the Averham Park Lodge builders and owners, given that three were subscribers to his Journal (Barley 1986:217; 1792 1:xvi). Their Lodge was also the repository of a 52 point caribou antler rack he brought from Labrador (1792 1:49).

Hunting lodges and guest houses were occasionally built in locations of "commanding isolation" (Barley 1986:218). They were used by the British gentry as hunting and shooting retreats where they could host their personal and political friends. Cartwright's ridge-top house appears to have functioned as such a retreat, especially as a guest house. He occasionally hosted his naval officer and gentry friends on "a party of pleasure," or hunting party (1792 1:248). When visiting him at Stage Cove they stayed in his own house, and at his other posts they stayed at the main winterhouse there, such as "Ranger Lodge" or "Caribou Castle" (1792 1:35; 2:116). Based on the circumstantial, documentary and architectural evidence it seems clear Cartwright considered, if not copied, hunting lodge guest houses during construction of his Stage Cove house.

The overall long rectangular house shape also resembles Glassie's "XY 2" type house in his classification of New England Anglo-Irish vernacular houses (1975:25, 34-35). This type is rectangular, one storey high, has an end wall chimney(s) and is one room deep. In fact, all of Cartwright's Labrador houses and the Averham Park Lodge guest house generally resemble this "XY 2" type. Cartwright obviously considered this house form appropriate for his needs and, apparently, so did British builders over a relatively large area of north-east North America from the late 18th to early 20th centuries.

The brick and stone fireplace in Cartwright's house was obviously a response to chimney fires common in the clay and wood fireplaces of his previous Ranger Lodge houses and the other houses he built in Labrador (1792 1:70; 2:116). The location probably reflects both structural support and heating. The latter function seems more important however considering the house was only a single storey high and situated on a relatively flat site. Yet an end wall position, apparently a 17th century Anglo/Irish building tradition, was poorly suited for heating a Labrador winterhouse compared with the more efficient central position (Deetz 1977:101).

This interpretation is supported by the different fireplace positions in 17th and 18th century Anglo-American built houses in the Tidewater region of Virginia and New England. The retention of end wall fireplaces in the Tidewater region appears to reflect the recognition that this position, not a central one, worked better to dissipate excess heat during the region's hot summers, warmer than those in Britain (Deetz 1977:101). In contrast, New England houses with central fireplaces were apparently built in response to colder winters than those in Britain where the excess heat would be an advantage. End wall fireplaces are also considered a weak spot in 17th century British house design as they were not attached as securely to the main frame as the side walls (Braun 1962:90). This sometimes resulted in the gable wall falling outward and away from the frame.

These fireplaces have been noted for 17th century British houses on both sides of

the Atlantic (Deetz 1977:96-101; Braun 1962:113). They also have at least that antiquity in Irish houses, and gable wall fireplaces have been documented for houses on the Island of Newfoundland to at least the early 19th century (O'Danachair 1946:93; Mills 1977:83, 86). By putting the fireplace on an end wall Cartwright appears to have preferred maintaining a traditional, fireplace design despite its relative inefficiency as a heating source.

Another traditional building design feature of his house is the use of a "common dimensional denominator" of 16 feet (Deetz 1977:108-09). Many 17th and 18th century Anglo-American builders made use of what has been termed a grammar or set of rules for building (Glassie 1975:21-26). One of these rules was to build with 15 foot units or their multiples and factors (Glassie 1975:21-26). Builders in 17th and 18th century New England, Virginia and some of the middle-Atlantic colonies appear to have regularly used a 16 foot module, especially the square. A 16 foot measure is also the same as the English rod used by New England colonists to allot landholdings (Deetz 1977:109).

The 24 foot interior width of Cartwright's house was the 16 foot dimension plus half greater. This interior dimension permitted the layout of a 24 foot square kitchen and a dining room 24 feet wide by 16 feet long. The unrecorded house height may have been eight feet, a dimension in keeping with its single storey height and the design principle of 16 and its factors. This measurement compares favourably with the minimum seven foot height of some 17th century British houses in New England (Deetz 1977:109). A century later in the south-eastern part of the Island of Newfoundland Anglo-Irish houses were still a common single storey height (Anspach 1819:467-68).

The 70 foot house length, six feet more than four times the dimensional standard, appears to diverge from the design principle (Glassie 1975:30). The kitchen and dining room comprised 40 feet with the remaining 30 feet divided into six bedrooms of unrecorded size (1792 2:24). Yet, if the six bedrooms were eight feet wide, a width Cartwright recommended for bedrooms in a Labrador merchant's house, they could fit

within an area of 24 feet square (*Cartwright Additions*:33). A central passage four foot wide aligned with the house long axis could have divided the six into two groups of three measuring ten by eight feet.

Since this accounts for only 64 feet of the 70 foot length, the remaining six feet may have comprised the depth of the fireplace. The fireplace feature measured four and one half metres wide, considerably larger than the six feet unaccounted for. However, extensive slumping of its south-west corner brick and masonry wall was noted during excavation, which may explain the discrepancy. In any case, the six foot dimension could have been large enough to have benches positioned within the hearth area, an 18th century style (O'Danachair 1946:94, 104; Braun 1962:91-92).

The 78 foot length of the house building site versus the documented 70 foot house length suggests further use of an eight foot room width dimension. The extra eight feet at the house west end may have been prepared for a future bedroom extension. In 1775 Cartwright invited two scientist friends to visit him, British gentry who would probably have been provided with their own room (Dawson 1958:203). They never made the visit, but the extra eight feet would have conformed with Cartwright's recommended bedroom width. A 44 x 24 foot salmon house Cartwright built in Sandwich Bay also illustrates both use of the eight foot width extension and consistent use of the 16 foot measure (1792 2:84).

No evidence for vertical stud wall framing was recovered from his house, but the documented use of stud walls reflects the diffusion of another European and, especially British, building tradition. These vertical studs characterise the technique of box-framing in which "vertical posts (are) connected by horizontal plates, sills, and girts," the top, bottom and middle horizontal timbers (Upton 1981:37). The vertical studs are especially indicative of the major, east British school of structural framing in which small, closely spaced vertical members were fit into the wall frames, with diagonal bracing further securing the wall (Smith 1965). This east British wall building method has a 15th

century antiquity and was the main framing method exported to North America (Upton 1981:37; Mason 1976:73).

Vertical stud wall construction was popular in Labrador and on the Island of Newfoundland by at least the late 18th century. Its origins may be either British or French, especially in southern Labrador (Mills 1977:86). It may have spread east with the French occupation of the Gulf and Strait during the 17th and 18th centuries (Richardson 1973:79). Vertical stud walls in Cartwright's house then appear to have been in keeping with a fairly common building tradition found throughout Britain and in British and French colonies along the north-west Atlantic coast.

The doorway within the porch appears to be of a style known as a baffle entrance (Mercer 1975:67-68). This entrance, at one end of a lateral wall approximately in line with the fireplace front, was a common British and Irish style during the 18th century. The doorway would either lead directly into the kitchen, a hall-kitchen or a service room from which other rooms could be reached. This style has been noted in many northern British houses divided into two main sections or cells, with examples in Nottinghamshire, Cartwright's own home county (Innocent 1971:232; Mercer 1975:67-68).

From as early as the 17th century a similar type of baffle entrance was also common in houses in both south and east Ireland, regions from which many of Cartwright's servants probably originated (1792 2:2; Mannion 1974:141). This type of entrance opened onto either the fireplace side wall or a separate jamb wall which formed a draught screen. Therefore, a baffle-type entrance onto a fireplace or bordering jamb wall was a type probably familiar to all the Anglo-Irish who built the house.

Finally, except for his brick and stone fireplace, wood was used extensively in the construction of the house and in most, if not all, the other site structures. The near total reliance on this material reflects its popularity with the Anglo-Irish in the New World (Upton 1981:38-40). Yet some, if not all of Cartwright's servants, were probably familiar with stone and brick buildings, common construction materials in Britain and Ireland

during the late 18th century. From as early as the 16th century wood for construction purposes was scarce in Britain, a situation which led to the increasing use of brick, stone and earth (Upton 1981:38). Timber for building appears to have been scarce at Stage Cove as well, and in order to obtain it, considerable effort was required. Trees had to be cut in the surrounding bays, or abandoned buildings in the area scavenged, with all the wood rafted to the post. But this effort does not seem to have constrained wood use, at least not to the point where other materials were chosen. Reliance on wood for building suggests it was perceived as being abundant relative to Old World standards. Structures built largely out of wood are in keeping with European construction in many parts of North America where timber was abundant and both its use and waste common (Upton 1981:38).

7.7 Architecture as a reflection of site functions

Table 8.1

The construction of Cartwright's substantial winterhouse plus those for his servants marked the upgrading of Stage Cove from a sealing post and transshipment depot to a regional headquarters. This range in intensity of occupation will be discussed according to three phases, the first being the year-long pioneer phase from mid-1770 to mid-1771 in which no structures were built. The next period, the competition phase, is named for the many disputes Cartwright had with his fellow merchants, which lasted from approximately mid-1771 to mid-1774. Apparently only four structures were constructed in these years, a stage, fishing flakes, a shoremen's house and one for the sealers. This period was followed by the settlement phase from mid-1774 to mid-1775, during which Cartwright's house and other servant houses were built.

New architecture then marks a definite shift in intensity of site occupation, especially considering that houses at Ranger Lodge were still occupied year-round during the settlement phase. Based on the site documentary record and on parameters of the regional environment it appears the Stage Cove structures served more than to just house

people and equipment. The buildings also appear to have helped to delimit Cartwright's operating territory, plus they served a watch-tower function. These additional functions will be described using a sailing vessel metaphor. Cape St. Charles is the bow, Stage Cove the mid-section, its ridge-top houses the main mast crows-nest and Ranger Lodge the stern, a distance of approximately 15 km.

7.7.1 Capturing resources

Map 1.1

Plates 1.1, 4.2, 7.10

From the Stage Cove ridge crows-nest one has a nearly 360° view of the surrounding area, including south to Cape St. Charles and the outer coast and north part way up St. Charles Channel towards Lodge Bay. The ridge-top position of Cartwright's house and at least one servant house appears to have enabled the inhabitants to monitor effectively the movement of important sea and land resources such as seals, caribou and foxes, all of which were taken near the site or within a day's travel (1792 2:41-72). These animals were only seasonally abundant and quick logistical responses had to be made in order to maximise their capture. The ridge-top architecture then appears to have served as a lookout point for game, a function which other hill-tops near Cartwright's posts, such as "Signal Hill" near "Caribou Castle" in Sandwich Bay, also served (1792 2:165).

These vertical advantages offered by the site's elevation were apparently matched by 'horizontal' or locational advantages offered by its position in St. Lewis Sound. For example, travel by sail and row boats between the outer coast and Stage Cove appears to have taken half the time than from Ranger Lodge, depending on wind conditions (1792 1:159). This shortened travel time would also have applied when pack and fast ice surrounded the site since the ice acted as a bridge to the surrounding mainland, which facilitated snowshoe and dog-drawn travel (1792 1:68, 116). Labour and equipment then could be moved between Stage Cove and many of the resource procurement sites faster than between them and Ranger Lodge during both operating seasons, open and closed water. This mobility/distance factor also applied to trade with Inuit, Cartwright's

principal trade partners, who frequented the area for only a short summer period. They travelled along the outer coast and often used Cape St. Charles as a temporary camping spot (1792 1:140-51, 160, 240). Since Cartwright either travelled to them or sent messages inviting them to trade at his posts, the closer proximity of Stage Cove to the outer coast probably facilitated trade.

7.7.2 Security

Map 1.2

Plates 1.1, 7.10

Sea and weather conditions were extremely important for the mobility and safety of Cartwright's people, goods and facilities. Compared with the metaphorical bow and stern, Stage Cove appears to have been a good position for buffering rough conditions and monitoring sea traffic in St. Lewis Sound. For example, the Stage Cove wharf, stage and fishing rooms located in the lee of the White Bear Point ridge probably gave these structures some protection from storms, wind and ice out of the north, south and west (1792 1:169, 219; 2:107, 120). Further, the effect of stormy conditions at Stage Cove is less than at Cape St. Charles and the outer coast due to distance and the buffering effect of the islands there, such as Great Caribou (Paul Pye, pers.comm., 1986).

This situation helped to make Stage Cove a safe harbour for supply schooners and brigs, especially given its average nine to ten fathom depth. Cartwright was probably aware of this depth based on his knowledge of the 1760s sea charts of Cook and Lane. Ranger Lodge at the head of St. Charles Channel also appears to have been a safe harbor, but its shallowness, at five fathoms or less with only a narrow channel in the seven to ten fathom range, led to moorage up to four miles away (Canadian Hydrographic Service 1978:#4714). As a result, his servants were required to make frequent trips in small boats in order to transship supplies or resource commodities, a time-consuming task (1792 1:42). The advantages of Stage Cove as a harbour, plus its wharf and shoreman's house previously constructed, may have figured in Cartwright's decision to make the site his main port of entry (1792 1:131-69, 262, 283).

The site's ridge-top architecture, approximately 12 m above sea level, may also reflect security concerns about Inuit. During excavation the excellent view from the ridge was rarely obstructed by fog as the mid-Sound location makes the ridge less susceptible than the outer coast to being enveloped. The former houses on this virtually treeless ridge were approximately 100 m back from the shore, bordered by relatively steep slopes. Europeans living in these houses would have been difficult to approach by sea or land without being seen, especially compared with the Ranger Lodge structures surrounded by woods.

Security concerns over the Inuit led Darby, Cartwright's merchant predecessor in the area, to mount a battery of swivel guns on "Battery Hill" east of his headquarters at the St. Charles River mouth (1792 1:40). These same concerns led Cartwright in 1770 to accept 20 stands of small arms from the Admiralty as part of his "defence against the Eskimoes" (Cartwright 1:19-20). One of their favourite fighting tactics was surprise raids or thefts under the cover of darkness or fog, with Cartwright once a victim of their thefts (Hüller 1967:30). But from ridge-top houses Europeans with access to weapons would have been easily able to monitor their boats and boat gear, goods highly valued by the Inuit (1792 1:160).

7.7.3 Commercial boundaries

Map 1.1

Cartwright was competing with approximately four other merchant firms in St. Lewis Sound during the early 1770s (1792 1:98; 2:21, 47, 88). This competition, especially with the largest firm of Noble and Pinson, caused him to lose control of a sealing post at Cape St. Charles and facilities and equipment at a number of fishing stations during the early 1770s (1792 1:231-46, 276-79). Cartwright placed barrels of salt meat at one station as his territorial stake during one dispute with his fellow merchants over control of the post (1792 1:241). His Stage Cove winterhouses apparently served a similar staking function.

Commercial disputes between merchants arose out of competition over the best production facilities, such as fishing and sealing stations, and also as a result of British government anti-settlement policy. The latter condition precluded land purchases and large numbers of servants wintering over at merchants' posts in the Strait of Belle Isle in the early 1770s. But construction of buildings and facilities at sealing stations and fishing posts, and their regular use, gave the entrepreneur responsible control of these production facilities. In effect, merchants attempted to establish a monopoly over use of a certain station or post through regular, albeit seasonal, use of European architecture and goods.

This process of staking a post or commercial zone was strengthened in 1774 with the passage of the Quebec Act sanctioning the establishment of permanent posts and their occupation by servants year round. Further, servants could then legally winter over at posts and, in turn, their year round presence helped to maintain a merchant's operating territory. Cartwright appears to have been taking advantage of the new political/economic context since the 1774 construction of new houses and facilities at Stage Cove coincided with the formulation and passage of the Quebec Act in late 1773 and early 1774. His new winterhouses would have strengthened his claim on an operating territory that then extended from Ranger Lodge at the head of St. Charles Channel to the middle of St. Lewis Sound.

Chapter Eight

Summary and Conclusions

8.1 Introduction

A brief review of excavation by feature will first be presented along with important characteristics of the assemblage. Results of the artifact dating formulas and pattern comparisons are then summarized, followed by a summary of the investigation of architectural remains. Finally, the assemblage and documentary comparisons are evaluated in terms of present goals and future research.

8.2 Fieldwork review

Map 1.2
Tables 1.2, 1.3

8.2.1 Total site area

The total site area measures 200 m north-south by 150 m east-west. The small excavated sample of less than one per cent allows for only tentative interpretations of activity areas. However, the larger feature samples, averaging approximately 12%, allows for more substantial functional interpretations.

The building remains marking Structure Areas 1 and 2, separated by 75 m, are both on the ridge overlooking Stage Cove. Structure Area 4 has no view of Stage Cove proper as it is on a gentle slope slightly below and 80 m north of Structure Area 1. The Feature 3 trash dump is located roughly midway between Structure Areas 1 and 2 and east of them and on a south-east facing slope below the ridge. Features 5 and 6 are the shore edge activity areas.

8.2.2 Structure Area 1

Map 4.1

This long, shallow rectangular depression, the site's largest feature, is the remains of Cartwright's house. It measures eight metres wide from the inside of its north-south borders, which compares favourably with the documented 25 feet or 7.6 m. The two low, parallel ridges marking the feature's north-south borders measure 23.8 m, including the relatively large, nearly square fireplace mound and pit. This dimension is approximately two metres greater than Cartwright's 70 foot or 21.4 m measurement. The lack of a raised perimeter or border at the feature's west end prohibits determining the precise definition of the western end of the house. Yet the overall feature dimensions suggest a somewhat larger building site was prepared than utilized.

Approximately 10% or 20 m of Structure Area 1 proper (190.4 m) was sampled. The sample from the larger Structure Area 1 total (255.8 m) was also about 10% or 25.0 m. This was the largest of the feature samples. It consisted of various combinations of one by one metre and one by one half metre excavation units placed on a subjective basis throughout. Part of the feature rim, fireplace, kitchen area, doorway and poorly defined west end were all excavated. The units were placed at a slight diagonal to the feature's long axis in order to avoid overlapping the assumed original rectilinear layout of the building. The strategy was somewhat successful since remains of what appears to be a partition wall were encountered in the main trench. This trench also provided a cross-feature profile, while the second trench bisected an approximately two metre diameter pit in the east end. Shovel testing and stratigraphic coring were conducted on a non-systematic basis in this and every feature.

8.2.3 Structure Area 2

This feature is probably a servant household. It is a nearly square, poorly defined depression measuring eight by eight metres. It includes a number of what appeared to be randomly spaced clusters and alignments of rock and brick. A one metre square (0.02%) was excavated within the feature's southeast quadrant and surface finds were collected on

a non-systematic basis.

8.2.4 Feature 3

This is a four metre diameter midden located northwest of and downslope from the features described above. A one metre square was excavated in the north half of this roughly circular dump. Surface finds on its southern edge were also collected.

8.2.5 Structure Area 4

This shallow depression was defined by what appeared to be a five-sided rim of moss and lichen-covered cobbles. It is either an unknown kind of European structure or else an aboriginal tent ring, with the cobbles possibly hold-down rocks. A one metre square, or six per cent of this approximate five metre diameter feature, was excavated in its southern perimeter and a shovel test dug in the grass patch outside the feature's rim. The latter was located about four metres west of a small gap in the rim's north-east corner. The shovel test produced the bulk of the clearly European assemblage. The gap may be an entranceway within the rim.

8.2.6 Features 5 and 6

These shore edge activity areas were defined by artifact concentrations and both surface and sub-surface architectural materials. Feature 5, a surface/subsurface concentration of fragmented brick approximately two metres in diameter had a one by one half metre unit excavated. The brick was located approximately 5.0 m inland from the shore edge Feature 6 and measured approximately 30 m north-south by 10 m east-west. Shovel testing and non-systematic surface collection along the edge of shore and adjacent bedrock shelves comprised an 8.3% sample. Mainly historic artifacts were recovered including a few trade beads and a piece of retouched glass, along with a few retouched chert flakes. These areas may have been used for boat storage and maintenance and for fish and seal processing and storage.

8.3 Site assemblage

Approximately 7500 artifacts were recovered in total, mostly lantern glass and nail fragments. About 1400 of these were eliminated from analysis due to identification, classification and provenience problems. The remaining 6100 artifacts included bottle glass, ceramic sherds, trade beads, lead shot, gun flints and various iron and copper items. Also found were a door lock and key, a shoe with heel and tools such as hammer and axe heads. Native bird remains and imported, domesticated fauna characterised the small faunal assemblage while organic materials included leather, wood and bird feathers.

8.3.1 Artifact dating formulas

Tables 5.1-5.9, 8.1

Three artifact dating formulas were used to date Stage Cove in comparison with its documented occupation and with artifact stylistic dating. South's (1974:145) Mean Ceramic Date formula was used with the ceramics and the Harrington-Binford (Binford 1978b) and Hanson (Oswald 1975) dating formulas were used with the pipes.

All the Stage Cove sherds (n=258) were used in the Mean Ceramic Date formula except for the 26 tin-enamelled sherds whose exact type could not be determined. The Mean Ceramic dates for the median occupation of the site and features are as follows: 1722.5 for the whole site, 1781.4 for Structure Area 1, 1733.0 for Structure Area 2 and 1782.1 for Feature 3. Compared with the documentary record the Stage Cove and Structure Area 2 dates are too early while those for Structure Area 1 and Feature 3 are a bit late.

The early dates may be due to the formula being skewed by sample size, or by incorrect median production dates for certain ceramics. For example, the 1713 median production date of North Devon gravel free ware, assigned on the basis of stylistic comparisons with North Devon gravel tempered ware and on documentary research, may be too early (South 1977b:211). Gravel free ware may not have been produced throughout the production period of gravel tempered, so the former may need to be

classified as a separate ware with a different median production date. The more accurate 1780s median dates of Structure Area 1 and Feature 3, features which lacked gravel free ware, suggest this as does the 1788.9 Structure Area 2 date, calculated without gravel free sherds. Finally, the use of gravel free ware at Stage Cove appears to have coincided with its probable decrease in popularity and production (South 1977b:211).

The 1780s dates of Structure Area 1 and Feature 3 fit reasonably well with the small but steady increase in the European servant population documented in the Strait of Belle Isle historic record (Thornton 1977:159-61). Yet a single, c.1770s occupation of Stage Cove is supported by most of the assemblage stylistic dates and the documentary record (1792 2:362, 485). The decade difference between the median occupation dates of Structure Area 1 and Feature 3 and Cartwright's record may be due to ceramic sample size and relatively early 18th century median production dates. For example, the Structure Area 1 1781.4 date, seven years later than its documented occupation median, was based on only 19 sherds. With such a small sample the production date of one ceramic type can easily skew the date produced from the total ceramic assemblage. In the case of the 1782.1 Feature 3 date, it may have been skewed by the relatively early 18th century median production date of 1733 for lead glazed slipware (South 1977b:211).

The two dating methods used on the pipe stems ($n=114$) are regression formulas based on a reduction in tobacco pipe bore diameters over time. With the Harrington-Binford formula Stage Cove was dated to 1778 ($n=102$), Structure Area 1 1767.3 ($n=20$), Structure Area 2 1759.7 ($n=43$) and Feature 3 1766 ($n=39$). According to Hanson's formula the site occupation dates to 1789, Structure Area 1 1772.5, Structure Area 2 1760.7 and Feature 3 1772.5. Given that both statistical formulas have a standard deviation of 10-15 years, the formula-derived dates compare favourably with the documented median of 1775.5. The formula dates also compare favourably with stylistic dating of pipebowl design elements dated c.1760-1780. The relatively small error between the formula dates and the documentary record might decrease further with an

expanded pipe sample. In any case, the Stage Cove sample supports the formulas use with pipes from this later 18th century period (South 1974:29).

The pipe bore formula dates of Structure Area 2, 1759.7 and 1760.7, and its Mean Ceramic formula date of 1733.0 are early relative to the documentary record. This grouping of early dates, the last of which is somewhat suspect, suggests a pre-Cartwright occupation of this feature. This is a reasonable possibility given the pre-1770s British and French activity near Stage Cove.

8.3.2 Artifact Patterns

Initially, the Stage Cove artifact classes did not clearly fit South's Frontier and Carolina artifact models, due mainly to a relatively large quantity of lamp glass. This quantity was interpreted as an anomaly compared to Furniture Group frequencies in the models. Reclassification of the glass from the Furniture to the Kitchen Group appeared justified on the basis of site documentation and regional culture history. This was done and resulted in more favourable comparisons with South's Carolina Artifact Pattern. Further, the Stage Cove assemblage compared favourably with artifact group frequencies predicted for both the Carolina and Frontier Patterns. This result, however, supports recent criticism of South's models that their artifact classes are too broad to be testable. Modification to anomalous artifact classes from a comparison assemblage used with the models can often improve their fit when comparisons are initially unfavourable. However, this process is not a test of the models, only the creation of another descriptive pattern reflecting local/regional culture history (Adams pers.comm., 1989; Lees 1989:124).

Despite these problems the models appear to be useful as a standardized data base. They represent norms to which general comparisons can be made and variation investigated (Martin 1985:171). They can be used as tools for investigating functional diversity and the degree of domesticity at historic sites (Martin 1985:170). They were used as such here in order to investigate lamp use and supply in terms of "functional

differentiation, disposal practices and the internal variation within and between contexts” (Martin 1985:171). This further study seemed appropriate given that the lamp glass was mainly recovered from domestic trash dumps.

Lamps and all other European supplies arrived at Stage Cove via supply ships from London and Waterford. In other words, one of the site functions was as a supply centre. South described the effects of this function on certain artifacts recovered from two late 18th century fort sites in the Carolinas. At these two forts he compared the ratio of heavyware to teaware ceramics and found the greater ratio at the fort closest to the nearest major supply centre (1977b:149, 151). He partially attributed this factor to “the greater ease of transportation” between the two locations. Glass lamps are obviously not heavy ceramics but their fragility probably made them just as difficult to transport. Their presence at Stage Cove, along with other artifacts that characterise the site as Carolina Pattern, reflect its harbour/storage depot function.

An implication of this interpretation is the recovery of certain fragile items of European material culture, such as lamp glass, may be greater at sites with good transportation connections with supply centres than at sites distant to those centres, or ones which have less efficient links. This point is somewhat supported by the Stage Cove ceramics. Creamware, popular during the 1770s, corresponds well with the documented occupation period as does the English porcelain. Also well documented is their relative expense, especially Chinese porcelain, and their association with the British elite on both sides of the Atlantic. In contrast, the coarse North Devon ware found only in Structure Area 2 was decreasing in popularity during the 1770s. Its presence at the site reflects both the purchasing power of servants and their documented backgrounds from West Country Britain and south-east Ireland. Yet Chinese porcelain was recovered with the North Devon ware, along with a relatively large quantity of creamware.

The relatively wide site distribution of the ceramics, especially the more expensive ones, may reflect efficient and economical trans-Atlantic transportation. Ships laden with

goods from London and Waterford arriving yearly at Stage Cove could have provided a more than adequate supply of ceramics. In turn, this supply could have led to greater use and subsequently greater distribution than without such efficient transport. Further research at Stage Cove and similar ones on both the Labrador coast and interior is needed in order to determine the full effects of this factor.

In the case of lamps, both climate and administrative functions assumed for a headquarters post probably contributed to their use. The vast majority of lamp glass was recovered from the trash dump at the west end of Cartwright's house. He wintered over at Stage Cove with some of his servants between 1774-1775, when he upgraded the site from a frontier sealing/fishing post to his regional headquarters. A winter occupation of this and the other site dwellings and a probable abundant supply of lamp fuel, seal oil, probably resulted in considerable lamp use.

8.4 Architecture Summary

8.4.1 Stylistic comparisons

Cartwright's house resembles a 17th century British long-house. This style is characterised by Renaissance period asymmetry compared with the more symmetrical late 18th century Georgian designs. The long, rectangular shape, isolated location and documented use of the house also compares favourably with 17th and 18th century British hunting lodge guest houses. Cartwright's house in particular and hunting lodge guest houses in general correspond closely to Glassie's XY 2 type house (Glassie 1975:25, 34-35). Finally the house dimensions suggest use of a "common dimensional denominator" of 16 feet during construction (Glassie 1975:17-18, 23). This dimension, its factors and multiples appear to have been part of a grammar used by many 17th and 18th century Anglo-American builders (Glassie 1975:21-26).

The substantial, east end brick and stone chimney appears to be a response to the danger of chimney fires common in many wood and clay Labrador winterhouse chimneys

of the time. Wood fragments, probably from the roof and floor, verify the documented extensive use of wood throughout the structure. These also attest to the popularity of wood as a choice building material with British builders in the New World. The general lack of structural wood remains at Stage Cove, especially the relative absence of finished timbers, also reflects the value of wood as a building material. In this relatively timber-scarce area milled wood would probably have been particularly valuable for scavenging, a documented post-abandonment practice.

8.4.2 Architecture as a reflection of site function

When living at Ranger Lodge on the inner coast, Cartwright was somewhat on the periphery of his St. Lewis Sound economic zone. By building winterhouses at Stage Cove he put himself more into the centre of this zone. The site's central position in St. Lewis Sound appears to have offered certain advantages over living in winterhouses in the inner coast area. Stage Cove was the hub of resource exploitation for the surrounding area, an approximate 15 km radius. This resource exploitation is reflected by the lead shot and sprue from Cartwright's house and by the considerable quantity of country food faunal remains (1792 2:146).

Living at Stage Cove also created the potential for more efficient management of personnel and equipment. Steffen (1980:37) has described managers of some of the small fur trading companies on the American fur trade frontier as "sedentary merchants who sought to control their economic fortunes through diversification of function and efficient administration." In other words it was through good management of daily business and personnel that the frontier mercantile capitalist became successful. The problem was "to coordinate the many variables in a given mercantile operation... through effective decision making" (Steffen 1980:37,38). Cartwright's variables included the procurement, transportation and housing of supplies and resource commodities as well as relations with his personnel, Labrador aboriginal people, his European competition, his partners and creditors and the environmental parameters. His winterhouses at Stage Cove

appear to have been a settlement pattern solution to coordinating these variables, a solution characterised by a "compromise amongst a number of conflicting determinants" (Trigger 1968:55).

8.5 Future Research

Significant differences in animal species between the relatively small faunal samples from Structure Areas 1 and 2 fauna appear to reflect documented dietary preferences. Yet at the same time, significant absences of bone from well documented local food sources, such as caribou, cod and seal, were also noted. The convergence of the documentary and archaeological records for certain species but not others is puzzling. Given that differential butchering and disposal practices off-site could be responsible for the significant absences of bone from certain animal species, some form of site catchment analysis might locate hunting and processing locations. In addition, since sample size and provenience introduced bias, water sieving of an expanded sample, especially from middens, could address this bias as might underwater survey and excavation along the shore edge.

In terms of investigating servant activity, archaeological evidence was recovered for one probable servant household and perhaps an aboriginal feature, Structure Areas 2 and 4, respectively. Yet approximately a half dozen servant quarters or shops plus an aboriginal dwelling are documented for this European-aboriginal site. The function of Structure Area 2 and function and cultural affiliation of Structure Area 4 could probably be determined through increased excavation, as might an expanded sample from Features 5 and 6 along the shore edge.

The study of European winterhouse construction and use would also benefit from increased excavation. Based on the relatively small, non-representative sample (n=10%) of Structure Area 1, favourable comparisons were noted between Cartwright's house and both 17th and 18th century New England architecture as well as traditional Anglo-Irish

designs. Further excavation might strengthen these comparisons, particularly in regard to hunting lodge architecture. The possible use of certain house features such as paper coverings on walls, skylights and interior wells or drains might also be clarified.

In terms of settlement pattern research, comparisons of the Labrador coast commerce-based European settlement with other examples in the Canadian north could prove useful. Stage Cove's short-term occupation is similar to the rapid establishment and abandonment of Hudson's Bay and NorthWest Company fur trade posts in the Canadian subarctic. At certain times when both companies were competing fiercely for furs and other resources, each would establish new posts ahead of its rival (Ray 1978). This process of leap-frogging over the competition's post with a new trading station established by your company was governed by the desire to be the first and perhaps the only European company that would trade with local aboriginal people. This leap-frogging then was the method by which one company established a trading monopoly, albeit often only a short-term one.

Cartwright appears to have obtained a short-term monopoly by abandoning Stage Cove in 1775 after only a year's occupation in favour of a new post in Sandwich Bay. He briefly outdistanced Noble and Pinson and the other merchant traders as they moved north in order to expand their fisheries along the Labrador coast. Cartwright's move north put him closer than any other trader to the main Inuit population centres on the central Labrador coast. There were Moravian missionaries near Nain, but they appear to have had only limited trade with the Inuit at this time (Kennedy 1985: 16-19). Cartwright's posts and those of other Labrador merchants and fur traders in the Canadian north appear to be a rich data base for investigating the relationship between mobility and monopoly conditions of frontier mercantilism.

In terms of technological structure and organization, Stage Cove appears suitable for investigating the presumed development of a more complex European subarctic technology. Europeans from a temperate zone were operating in a subarctic, relatively

high-latitude habitat at Stage Cove. Without the goods that supply vessels brought, these Europeans would have had great difficulty sustaining themselves in this subarctic environment. Similar goods used by temperate zone Europeans in mid-latitude habitats to the south generally ensured their successful settlement of those habitats. Yet, Anglo-Irish sealers, fur traders and fishermen at Stage Cove appear to have found Old World equipment alone inadequate for their success.

For example, in terms of hunting and trapping caribou, European portable drive fences made of sewel sticks were built near Stage Cove, pits were dug and snares set, all apparently with little success (1792 1:66, 108-18, 227). Certain kinds of European traps were considered inefficient because they had no teeth. Fur stretching boards imported from the Island of Newfoundland were apparently lengthened as the originals appear to have been too small (1792 1:99, 106). Imported hunting dogs appear to have been useful for bird and fox hunting, but were less so for hunting caribou (1792 2:44, 54; 2:47, 60). As a result of these equipment problems select types of aboriginal technology were borrowed in order to capture and transport resources more effectively.

This aboriginal technology included dog sledges, kayaks and snow shoes (1792 1:71, 110-12, 189, 201; 2:44, 62). Yet, in terms of a class of features or tools, remains of aboriginal bulk transport technology were not recovered. However, given the documented European use of this technology at Stage Cove, and the site's relative lack of disturbance by later use, it seems to be a good location for a study of this process of technological change. Moreover, a correlation between bulk transport capacity and the complexity of arctic aboriginal technologies is well known (Shott 1986:32). For example, the amount and variety of moveable gear is considerably restricted in high latitude environments without dog-drawn sledges and efficient boats (Binford 1979:263). Without this bulk transport capacity "the renowned complexity of arctic technologies may be difficult to sustain" (Shott 1986:32).

Further work at Stage Cove might prove useful for investigating a probable and

equivalent European subarctic correlation between technological complexity and bulk transport capacity. In turn, the aboriginal side of this technological exchange may be reflected by the broken bottle glass piece (#139) recovered along the shore-edge. Recovered glass fragments; sample from resource production and storage facilities along the shore-edge and the structure areas might prove useful for investigating this technological exchange process.

8.6 Summary

Tables 2.1.8.1

Cartwright's "memorandums for my own use and personal reference" in his *Journal*, and the information recorded in his other documents represent a singular view published for a select audience (1792 I:iii). This singular view however, serves as a valuable tool for interpreting the site archaeological record as a whole. Examples of correspondence between the site's documented occupation and artifact deposition there clearly support the use of this text-aided methodology.

Stylistic analysis of the artifacts and use of statistical formulas produced dates that generally confirm the single documented late 18th century occupation. Archaeologically demonstrated refuse disposal and presumed household maintenance during the occupation correlates well with the documentary record. This correlation indicates that the Stage Cove occupation apparently developed through at least four phases; pioneer, competition, settlement and abandonment.

Seasonal use characterises the first two phases, while year-round occupation apparently occurred only in the settlement phase. Within this short period of perhaps only a year a substantial increase in use and building construction occurred, including Cartwright's winterhouse and a number of servant houses. Building and faunal remains from this period correspond with the number of documented houses, with design features, with dietary preferences of the servants and with an aboriginal habitation. Cartwright's house also compares favourably with 18th century Anglo-Irish styles recorded for both

sides of the Atlantic.

Even cases of divergence between the text and artifacts support a comparison of both types of data within a single interpretive framework. Divergences led to reexamination of certain data and, in turn, helped strengthen the validity of further explanation of the site's history. The relatively large quantity of lamp glass recovered from a sealing post where abundant lamp fuel, seal oil, was produced suggests considerable lamp use. Yet the use of lamps at Stage Cove is barely mentioned, though need for light at a northern latitude post occupied during the winter, especially by an apparently prolific writer, would seem to be a necessity. Conversely, the absence of bone from species noted for their dietary and commercial use, such as caribou, cod and seals, generally corresponds with their documented off-site or shore-edge processing.

This thesis has demonstrated how different types of evidence, text and artifacts, can be combined in an interpretive framework in order to investigate late 18th century life at Stage Cove. Artifacts, architectural remains and documents were compared and determined to be complementary. The convergence of some of the different types of evidence was a significant factor in helping to explain the "major differences in the spatial and temporal distribution of artifacts and structures" at Stage Cove (Stone 1974:348).

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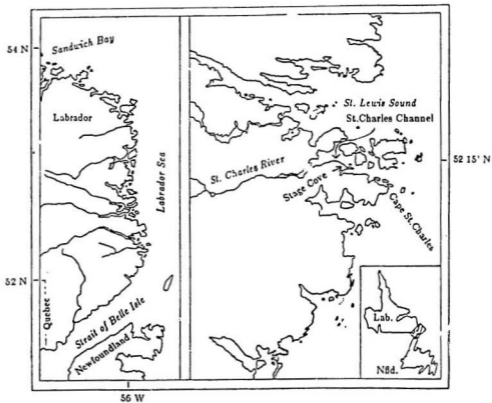
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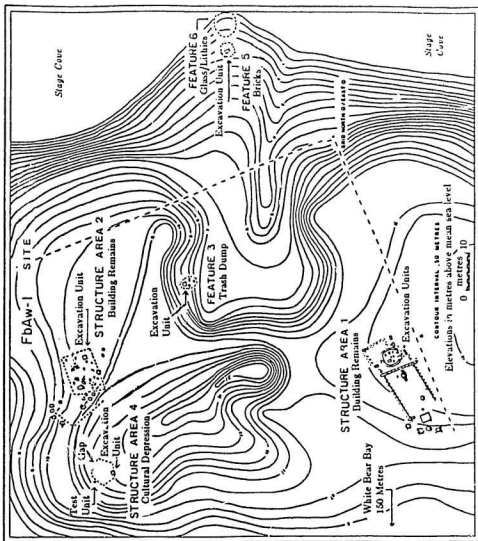
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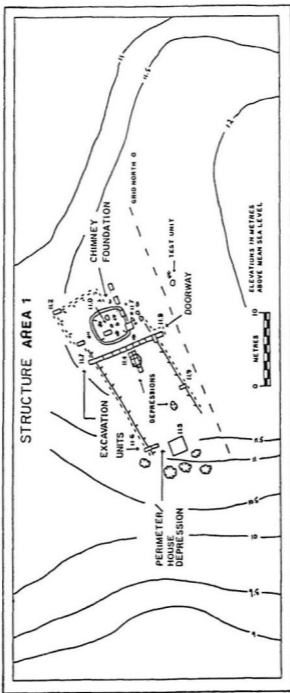
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Map 1.1 Stage Cove in relation to southern Labrador and the Island of Newfoundland (Whiteley 1976; Jackson 1982; Canadian N.T.S. Maps 1065).



Map 1.2. Stage Cove Site Contour Map



Map 4.1 Excavation map for Structure Area 1, Cartwright's house.

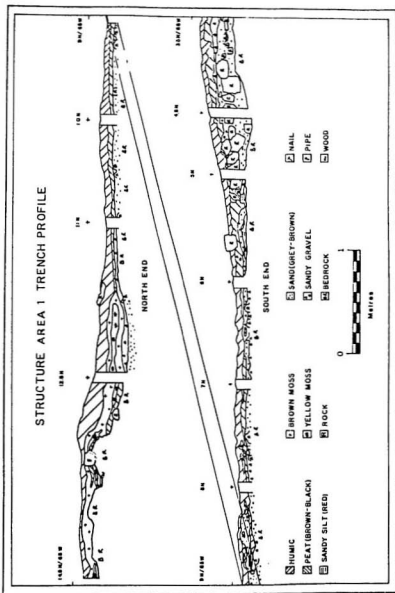
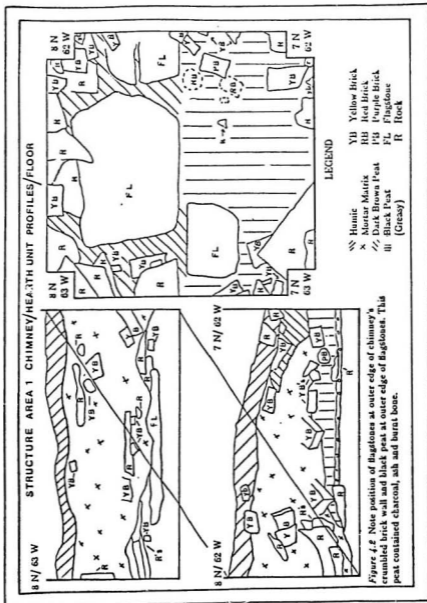


Figure 4.1 Structure Area 1 main trench profile, north wall. Note rock concentration marking doorway and porch at the lower right.



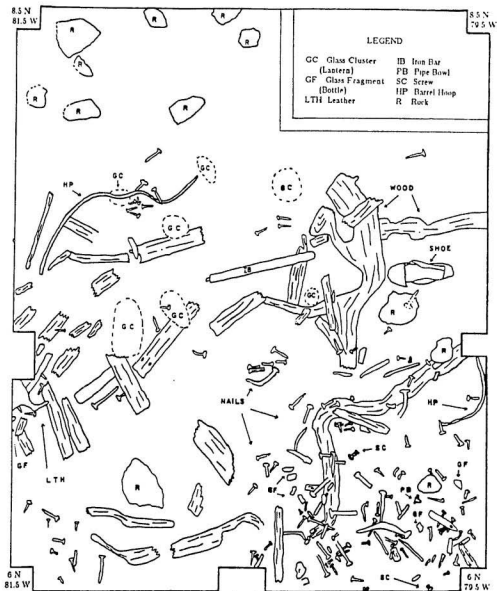


Figure 4.8 Structure Area 1 west end refuse deposit, levels 2/3. Note shoe and iron bar with chain link in north-east corner.

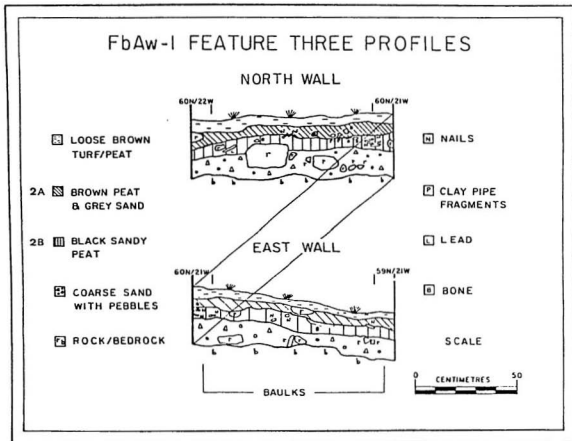


Figure 7.1 Feature 3 - North and East Wall Profiles

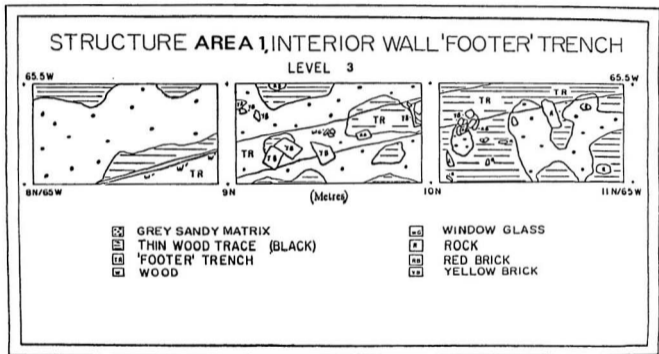


Figure 7.2 Note wood and brick fragments in footer trench & thin wood trace throughout.

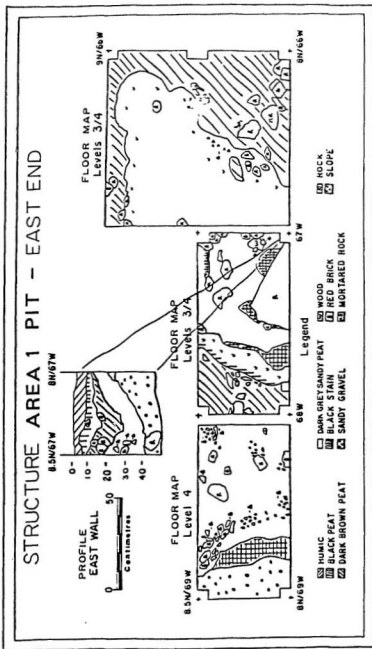


Figure 7.9 Note pit edge in west end of unit 67-68 and throughout unit 66-67. Note also brick fragment clusters in all units and wood fragments in pit floor of unit 67-68 west. Associated with this wood were iron flakes and fragments of what appears to be yellowish-brown paper.

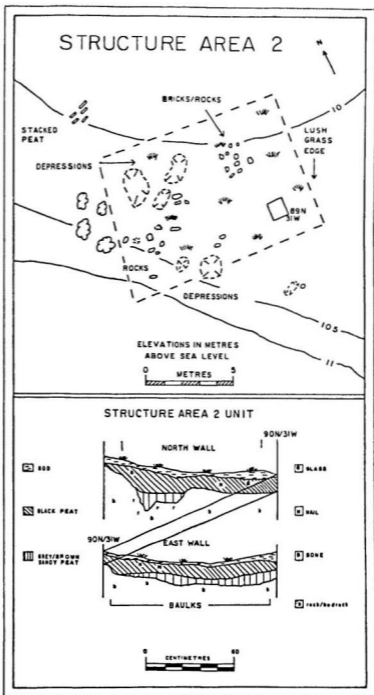


Figure 7.4 Note level 2 artifacts in profile, and brick/rock concentration in the north-east $\frac{1}{4}$ quadrant of the feature map.

Table 11

The Frontier & Carolina Artifact Panems*				
Group	(Frontier)		(Carolina)	
	Mean %	Percentage Range	Mean %	Percentage Range
Architecture	52.0	43.0-57.5	25.5	19.7-31.4
Kitchen	27.62	2.7-34.5	63.1	51.8-69.2
Furniture	0.2	0.1-0.3	0.2	0.1-0.6
Arms	5.4	1.4-8.4	0.5	0.1-1.2
Clothing	1.7	0.3-3.8	3.0	0.6-5.4
Personal	0.2	0.1-0.4	0.2	0.1-0.5
Tobacco Pipes	9.1	1.9-14.0	5.8	1.8-13.9
Activities	3.7	0.7-6.4	1.7	0.9-2.7
Stage Cove Artifacts				
Group	Number	Percent of Site Total		
Architecture	1327	21.0		
Kitchen	393	6.0		
Furniture	3845	62.0		
Arms	134	2.0		
Clothing	187	3.0		
Personal	'	.02		
Tobacco Pipes	179	3.0		
Activities	126	2.0		
Grand Total	6157	100%		
(*South 1977b; Martin 1985)				

Table 1.2

South's (1977b) Group - Class Artifact Categories*	
Group	Class
Kitchen	Ceramics; Tumblers; Wine/Case Bottles; Pharmaceutical Bottles, Glass, Table and Kitchenware.
Bone	
Architectural	Construction Hardware; Door Lock Parts; Window Glass; Nails/Spikes.
Furniture	Hinges, Knobs, Drawer Pulls and Locks, Keyhole Surrounds, Handles etc.
Arms	Musket Balls/Shot/Spur; Gunflints and Gunparts.
Clothing	Buckles, Thimbles, Buttons, Scissors, Straight Pins, Hook and Eye Fasteners, Bale Seals and Glass Beads.
Personal	Coins, Keys and Personal Items.
Tobacco Pipe	Pipe stems and bowls.
Activities	Construction and Farm Tools, Toys, Fishing Gear, Stub-stemmed Pipes and Colono-Indian Pottery, Storage Items, Ethnobotanicals, Stable and Barn, Miscellaneous Hardware, Military Objects, Other.
(* Martin 1985:9)	

Table 1.3

Stage Cove Artifacts: Feature vs. Artifact Class (after South)									
Provenience	Architecture Kitchen		Furniture Arms		Clothing Personal		Pipes Activities		
Structure Area 1	816.0	105.0	3781.0	33.0	18.0	1.0	33.0	100.0	
Structure Area 2	261.0	193.0	64.0	14.0	2.0	.0	66.0	1.0	
Feature 3	237.0	95.0	.0	96.0	146.0	.0	78.0	1.0	
Structure Area 4	13.0	.0	.0	.0	.0	.0	1.0	.0	
Feature 5	.0	.0	.0	.0	.0	.0	1.0	.0	
Feature 6	.0	.0	.0	.0	1.0	.0	.0	.0	
Total Artifacts per Class ==	1327.0	393.0	3845.0	143.0	167.0	1.0	178.0	102.0	
Class % within assemblage ==	22.0	6.0	62.0	2.0	3.0	.02	3.0	2.0	
Grand Total Artifacts == 6157									
Feature vs. Artifact Class (lamp glass as a Kitchen Group artifact)									
Provenience	Architecture Kitchen		Furniture Arms		Clothing Personal		Pipes Activities		
Structure Area 1	816.0	3885.0	1.0	33.0	18.0	1.0	33.0	100.0	
Structure Area 2	261.0	257.0	.0	14.0	2.0	.0	66.0	1.0	
Feature 3	237.0	95.0	.0	96.0	146.0	.0	78.0	1.0	
Structure Area 4	13.0	.0	.0	.0	.0	.0	1.0	.0	
Feature 5	.0	.0	.0	.0	.0	.0	1.0	.0	
Feature 6	.0	.0	.0	.0	1.0	.0	.0	.0	
Total Artifacts per Class ==	1327.0	4142.0	1.0	143.0	167.0	1.0	178.0	102.0	
Class % within assemblage ==	22.0	67.0	.02	2.0	3.0	.02	3.0	2.0	
Grand Total Artifacts == 6157									

Table 1.4

Adjusted Stage Cove Means* versus the Pattern Means and Predicted Range**					
Group	Carolina	Predicted Range	Frontier	Predicted Range	Stage Cove
Architecture	25.5	12.9-35.1	27.6	10.2-45.0	22.0
Kitchen	63.1	47.5-78.0	52.0	43.0-57.5	67.0
Furniture	.2	0-.7	.2	0-.5	.02
Arms	.5	0-1.5	5.4	0-15.6	2.0
Clothing	3.0	0-8.5	1.7	0-6.9	3.0
Personal	.2	0-.6	.2	0-.7	.02
Tobacco Pipes	5.8	0-20.8	9.1	0-27.1	3.0
Activities	1.7	.1-3.7	3.7	0-11.8	2.0

* (lamp glass as a Kitchen Class artifact)
 ** (South 1977b)

Table 2.1

Seasonal Round of Activities at Stage Cove 1774-1775			
Month	Faunal Resources	Floral Resources	Equipment-Mobility-Trade
June	salmon fishing at Port Marnham, the Coleroon and Charles Rivers, jigging for cod, hunting ducks, geese and caribou, trapping caribou using pits	cutting timbers and boards, planting root vegetables	seal net mending, building casks, repairing boats, shipping salt to fishing stations, unloading supply ship
July	cod jigging, hunting sea pigeons	cutting timbers, gardening	cask building, scavenging old and-or abandoned buildings, boat repair, landing supplies (including sheep)
August	cod jigging, eggng, gull and small mammal hunting	cutting firewood, bar: rinding for building purposes (roofing material), gardening	building construction, bricklaying, loading and departure supply ship departs with salmon, other resource commodities and with discharged servants
September	cutting firewood	melting seal fat, trading with Innu	
October	bird and occasionally seal hunting using muskets		cutting wood for equipment repair, building construction and firewood
November	fox trapping	cutting firewood	seal capstans and nets put out, wharf partially dismantled
December	sealing, roping and cleaning seal nets, trapping foxes, bird hunting	cutting firewood	chinking houses with moss, visiting begins between Europeans overwintering in Stage Cove vicinity
January	small mammal and bird hunting, trapping of fox, marten and ermine	cutting firewood	seal nets removed, visiting continues between Europeans overwintering

Table 2.1 Cont'd

Seasonal Round of Activities at Stage Cove 1774-1775			
Month	Faunal Resources	Floral Resources	Equipment-Mobility-Trade
February	hunting caribou and birds, trapping foxes		visiting continues between Europeans overwintering
March	trapping foxes		building repairs, trading with Innu, tickles measured for net making, visiting ends between Europeans overwintering
April	hunting caribou, birds and ducks, trapping foxes		buildings repaired, commodities stored off-site are collected
May	caribou hunting		
June	hunting sea birds, egging	cutting wood for stage timber, bark rinding for building purposes (roofing)	trading with Innu

Table 4.1

Structure Area 1 Artifact Distribution: Excavation Area vs. Artifact Type							
Provenience	Nails	Glass	Ceramics	Pipes	Ammunition	Gunflints	Beads
West End	253	3788		4		2	2
North-west corner units	2						
South-west corner units	14	208		2			
Small trench (east end pit)	83	49		2	1		
Large trench south end (doorway)	12	14	2	3	5		
Large trench midsection	8	35	1	5	3		
Large trench north end	1	5		1			
Fireplace	11	75	10	15	3	1	
North-east corner		1	1				
South-east corner		9					
Structure Area 1 Test Units	22	1	2	3	3	1	
Total Artifacts per Type =	459	4208	15	36	15	4	3

Table 4.2

Structure Area 1 Glass Distribution: Excavation Area vs. Glass Type						
Provenience	Lantern	Window	Bottle:-Green	-Clear or Aqua	-Cristaled	-Unknown
West End	3685	95		1	8	
North-west corner units						
South-west corner units	30	178				
Small trench (east end pit)	16	10	22			1
Large trench south end (doorway)	1	7	5	1		
Large trench midsection	31	3	1			
Large trench north end	2	3				
Fireplace	5	56	10		5	
North-east corner units	1		1			
South-east corner units		4		2		2
Structure Area 1 Test Units	10		1			
Total Glass Types =	3780	356	40	4	5	11
Grand Total = 4196						

Table 4.3

Structure Area 1 Ammunition Distribution: Excavation Area vs. Size, Manufacture			
Provenience	Musketballs	Shot	Manufacture Process (Cast; Rupert)
	(S; L)	(S; L)	
Small trench (east end pit)	0 - 0	0 - 1	0 - 1
Large trench south end (doorway)	0 - 0	4 - 1	0 - 5
Large trench midsection	0 - 0	3 - 0	0 - 3
Fireplace	0 - 0	2 - 0	2 - 0
Structure One Area Test Units	0 - 0	3 - 0	0 - 3
Total shot = 14 Total musketballs = 0 Grand Total Shot and Musketballs = 14			
Structure Area 1 Ammunition Distribution: Level vs. Size and Manufacture			
Provenience	Musketballs	Shot	Manufacture Process (Cast; Rupert)
	(S; L)	(S; L)	
Level 1	-	-	-
Level 2	0 - 0	7 - 1	0 - 8
Level 3	0 - 0	3 - 0	2 - 1
Structure One Area Test Units	0 - 0	3 - 0	0 - 3
Total small shot = 13 Total large shot = 1 Total shot = 14 Total musketballs = 0 Grand Total Shot and Musketballs = 14			

Table 4.4

Structure Area 2 Ammunition Distribution: Level vs. Size, Manufacture			
Provenience	Musketballs:	Shot:	Manufacture Process
	(Sml.;Lrg.)	(Sml.;Lrg.)	(Cast;Rupert)
Level 1	-	-	-
Level 2	-	7 - 4	0 - 11
Total musketballs =			
Total small shot = 7			
Total large shot = 4			
Grand Total = 11			
Feature 3 Ammunition Distribution: Level vs. Size, Manufacture			
Provenience	Musketballs:	Shot:	Manufacture Process
	(Sml.;Lrg.)	(Sml.;Lrg.)	(Cast;Rupert)
Level 1	-	-	-
Level 2A	- 2	22 - 9	4 - 22
Level 2B	1 -	56 - 3	7 - 57
Total musketballs = 3			
Total small shot = 78			
Total large shot = 12			
Total shot = 90			
Grand Total = 93			

Table 4.5

Stage Cove Gunflints				
Provenience - Catalogue #	Length(mm.)	Width(mm.)	Thickness(mm.)	Colour
Structure Area 1				
Fireplace (#303)	9.0	7.0	2.0	grey-brown
West end refuse deposit (#207)	30.0	31.0	9.0	grey-black (rust spots)
(#1031)	24.0	29.0	8.0	light brown
Structure Area 1 Test Units (#145)	15.0	31.0	7.0	grey-brown
Structure Area 2				
(#203)	32.0	28.0	8.0	grey-brown
(#153)	16.0	13.0	4.0	grey-green (mottled)
(#154)	12.0	12.0	2.0	green-black
Feature 3				
(#7)	22.0	36.0	12.0	grey-green
(#161)	28.0	24.0	8.0	grey-green
(#53)	15.0	16.0	7.0	grey
Gunflint Median: (‘complete’ flints)	27.2	29.6	9.0	
Total Gunflints = 5				
Total Gunflint fragments = 5				

Table 4.6

Stage Cove Mould-Pressed Bead Types						
Provenience	MP I	MP II				
Structure Area 1:						
West end (refuse deposit)	1	1				
Large trench south end (doorway)	1	-				
Feature 6	1	-				
Total Mould-Pressed Beads = 4						
Stage Cove Drawn Bead Types						
Provenience	Ila7	Ila11	Ila12	Ila56	Ila59	Ila3
Feature 3						
	84	1	34	25	1	1
Total Drawn Beads = 146						
Grand Total Beads = 150						

Table 5.1

Stage Cove Ceramic Sherd Distribution per Feature				
Ceramic Type	Structure Area 1	Structure Area 2	Feature 3	Total
-North Devon gravel free ware		121	1	122
-Creamware	16	40	59	115
-Underglaze blue Chinese porcelain	3	1		4
-English porcelain			1	1
-Lead glazed slipware			9	9
-White salt glazed stoneware		1		1
-Tin enamelled earthenware		4	22	26
Feature Totals:				
Structure Area 1 ==	19 (6.6%)			
Structure Area 2 ==		170 (60.0%)		
Feature 3 ==			95 (33.4%)	
Total Sherd Count ==				284

Table 5.2

Stage Cove Mean Ceramic Date Calculation			
Ceramic Type	Median Date	Sherd Count	Product
-Creamware	1791	115	205,965
-Underglaze blue Chinese porcelain	1730	5	8,650
-English porcelain	1770	1	1770
-White salt glazed stoneware	1763	1	1763
-Lead glazed slip ware*	1733	9	15,397
-North Devon gravel free ware*	1713	122	208,986
Sherd Count Total =		252	
Product Total =			434,081
Product Total			

Sherd Total = 1722.5			
Stage Cove Mean Ceramic Date = 1722.5			
Structure Area 1 Mean Ceramic Date Calculation*			
Ceramic Type	Median Date	Sherd Count	Product
-Creamware	1791	16	28,656
-Underglaze blue Chinese porcelain	1730	3	5190
Sherd Count Total =		19	
Product Total =			35,576
Product Total			

Sherd Total = 1781.4			
Structure Area 1 Mean Ceramic Date = 1781.4			

Table 5.3

Structure Area 1 Ceramic Distribution: Excavation Area vs. Ceramic Type			
Provenience	Creamware	Underglaze blue Chinese porcelain	Total
West end	2	-	2
Large trench south end (doorway)	1	1	2
Large trench midsection	-	1	1
Fireplace	11	1	12
Structure Area 1 Test Units	2	-	2
Total Sherds per Type =	16	3	
Grand Total Sherds = 19			
Structure Area 1 Mean Ceramic Date Calculation			
Ceramic Type	Median Date	Sherd Count	Product
-Creamware	1791	16	28,656
-Underglaze blue Chinese porcelain	1730	3	5190
Sherd Count Total =		19	
Product Total =			35,576
Product Total			
Sherd Total = 1781.4			
Structure Area 1 Mean Ceramic Date = 1781.4			

Table 5.4

Structure Area 2 Mean Ceramic Date Calculation			
Ceramic Type	Median Date	Sherd Count	Product
-North Devon gravel free ware	1713	121	207,273
-Creamware	1791	40	71,640
-White salt glazed stoneware	1763	1	1763
-English porcelain	1730	1	1730
Sherd Count Total =		163	
Product Total =			282,406
Product Total			
Sherd Total = 1733.0			
Structure Area 2 Mean Ceramic Date = 1733.0			
Feature 3 Mean Ceramic Date Calculation			
Ceramic Type	Median Date	Sherd Count	Product
-Creamware	1791	39	105,669
-Lead glazed slipware* (combed yellow)	1733	9	15,597
-English porcelain	1770	1	1770
-North Devon gravel free ware	1713	1	1713
Sherd Count Total =		70	
Product Total =			124,749
Product Total			
Sherd Total = 1782.1			
Feature 3 Mean Ceramic Date = 1782.1			

Table 5.5

Sage Cove Ceramic Vessel per Feature			
Feature	Ceramic Type	Vessel form	Vessel Number
-Structure Area 1:			
	Chinese Porcelain;	cup	1
		bowl	1
	Creamware;	cup	1
		plate	1
		plate-bowl?	2
-Structure Area 2:			
	Creamware;	plate	2
		bowl	1
	White Salt Glaze Stoneware;	mug	1
	North Devon gravel ware;	pan-jar?	2
-Feature 3:			
	Creamware;	cup	3
		bowl	2
		plate	2
	English Porcelain;	saucer?	1
	Lead glaze slipware;	bowl?	1
	Tin enamelled ware;	bowl-basin?	1
Total Sherd Count = 252			
Total Vessels =			22
Vessels per feature:			
Structure Area 1 = 6			
Structure Area 2 = 5			
Feature 3 = 11			

Table 5.6

Structure Area 1 Pipe Distribution: Excavation Area vs. Pipe Fragment						
Provenience	Stems	4-64"	5-64"	Incomplete bores	Bowls: D - U*	Total
West End	3	2		1	1	4
North-west corner units						
South-west corner units	2	2				2
Small trench (east end pit)	2	1	1			2
Large trench south end (doorway)	3	2		1		3
Large trench midsection	2	1	1		3	5
Large trench north end	1		1			1
Fireplace	6	5	1		7	12
North-east corner units	1		1			1
South-east corner units						
Structure Area 1 Test Units	2	1	1		1	3
Total bowls = 11 Total stems = 22 Total measurable stems = 20 Grand Total pipes = 33 Harrington-Binford date = 1767.3 Hanson date = 1772.5 * D = Decorated Bowls * U = Undecorated Bowls						

Table 5.7

Structure Area 1 Pipe Distribution: Level vs. Pipe Fragment						
Provenience	Stems	4-64"	5-64"	Incomplete bore	Bowls: D - U*	Total
Level 1	1	1			1	
Level 2 (living floor)	12	8	2	2	5	17
Level 3 (refuse deposit-fireplace area)	7	4	3		5	12
Structure Area 1 Test Units	2	1			1	3
Total bowls = 11 Total stems = 22 Total measureable stems = 20 Grand Total = 33 Harrington-Binford date = 1767.3 Hanson date = 1772.5 * D = Decorated Bowls * U = Undecorated Bowls						

Table 5.8

Structure Area 2 Pipe Distribution: Level vs. Pipe Fragment						
Provenience	Stems	4-64"	5-64"	Incomplete bore	Bowls: D - U*	Total
Level 1						
Level 2	54	19	24	11	8 - 2	64
Level 3						
Structure Area 2 Test Units	1			1	- 1	2
Total bowls = 11 Total stems = 55 Total measureable stems = 43 Grand Total pipes = 66 Harrington-Binford date = 1759.7 Hanson date = 1760.7						
Feature 3 Pipe Distribution: Level versus Pipe Fragment						
Provenience	Stems	4-64"	5-64"	Incomplete bore	Bowls: D - U*	Total
Level 1	0					
Level 2a	51	13	6	32	1 - 3	55
Level 2b	17	12	5	0	0 - 4	21
Feature Three Surface & Area (disturbed)	3	1	2	0	1 - 1	5
Total bowls = 10 Total stems = 68 Total measureable stems = 39 Grand Total pipes = 78 Harrington-Binford date = 1766 Hanson date = 1772.5 * D = Decorated Bowls * U = Undecorated Bowls						

Note; levels 2A and 2B were differentiated on the basis of quantity differences in pipes and other artifacts plus slight matrix differences. Stylistically their artifacts date to the documented occupation period.

Table 5.9

Stage Cove occupation dated by various means				
Date type	Structure Area 1	Structure Area 2	Feature 3	Stage Cove
-Mean Ceramic	1781.4	1732.4	1783.1	1722.5
-Pipestems:				
Harrington-Binford	1767.3	1759.7	1766	1778
Hanson	1772.5	1760.7	1772.5	1789
-Documentation	1774-1775?	1771-?	1771-?	1771-1779*
-Historic Median	1774.5	?	?	1775

*The latter date is based on Cartwright's last Journal reference to Stage Cove, though he moved from the site with some of his servants in mid-1775 (1792 2:362, 485).

Table 6.1

Per cent and quantity of Stage Cove fauna per features		
Sampled area	% of site total	number of diagnostic bones
Structure Area 1	30	102
Structure Area 2	9	31
Feature 3	53	181
Structure Area 4	8.5	29
Total	100	340
Stage Cove species, documented number* and MNI**		
Species	documented number	MNI
Pig (<i>Sus scrofa</i>)	2-3	3
Cow (<i>Bos taurus</i>)	1?	2
Chicken (<i>Gallus gallus</i>)	3+	1
Sheep (<i>Ovis aries</i>)	3	1
Goat (<i>Capra hircus</i>)	2	1
Dog (<i>Canis</i>)	2+	1
Common eider (<i>Somateria mollissima</i>)	-	6
White-winged scoter (<i>Melanitta deglandi</i>)	-	3
Black duck (<i>Anas rubripes tristis</i>)	-	1
Double-crested cormorant (<i>Phalacrocorax auritus</i>)	-	1
Oldsquaw (<i>Clangula hyemalis</i>)	-	2
Greater scaup (<i>Aythya marila</i>)	-	1
Bearded seal (<i>Erignathus barbatus</i>)	-	1
Harp seal (<i>Phoca groenlandica</i>)	-	1
Fish (<i>Osteichthyes</i>)	-	1
Shell (<i>Mollusca</i>)	-	1
(*liberal interpretation; MacLean 1987:16, 44, 57)		
(**Cartwright 1792 2:5-75)		

Table 6.2

Stage Cove faunal assemblage in numbers of bone per feature*					
Species	Structure Area 1	Structure Area 2	Feature 3	Structure Area 4	% of total
Pig (<i>Sus scrofa</i>)	7	1	27	-	10.2
Cow (<i>Bos taurus</i>)	2	12	6	1	6.1
Chicken (<i>Gallus gallus</i>)	1	-	-	2	.8
Sheep (<i>Ovis aries</i>)	-	-	1	-	.2
Goat (<i>Capra hircus</i>)	-	-	2	-	.5
Dog (<i>Canis</i>)	-	-	2	-	.5
Common eider (<i>Somateria mollissima</i>)	10	-	-	1	2.9
Double-crested cormorant (<i>Phalacrocorax auritus</i>)	1	-	-	-	0.2
Geese and ducks (<i>Anatidae</i>)	39	-	13	-	15.0
Seal (<i>Phocidae</i>)	2	4	1	-	2.0
Caribou (<i>Artiodactyla</i>)	-	-	1	-	0.2
Fish (<i>Osteichthyes</i>)	2	-	-	-	0.5
Shell (<i>Mollusca</i>)	-	-	4	-	1.1
Bird (<i>Aves</i>)	7	-	1	3	2.9
Mammals (<i>Mammalia</i>)	30	14	123	22	59.0
Voles (<i>Cricetidae</i>)	2	-	-	-	0.2
Non-diagnostic	18	1	19	2	9.6
Total	120	32	200	28	-
Grand total = 383					

(*MacLean 1987:57-58)

Table 6.3

Stage Cove faunal assemblage in weight (gm.) per feature*					
Species	Structure Area 1	Structure Area 2	Feature 3	Structure Area 4	% of total
Pig (<i>Sus scrofa</i>)	41.4	2.6	179.2	-	21.8
Cow (<i>Bos taurus</i>)	17.4	393.2	60.5	18.6	47.9
Chicken (<i>Gallus gallus</i>)	.1	-	-	1.0	0.1
Sheep (<i>Ovis aries</i>)	-	-	4.0	-	0.3
Goat (<i>Capra hircus</i>)	-	-	6.0	-	0.5
Dog (<i>Canis</i>)	-	-	1.3	-	0.1
Common eider (<i>Somateria mollissima</i>)	2.9	-	-	1.6	0.4
Double-crested cormorant (<i>Phalacrocorax auritus</i>)	0.6	-	-	-	0.6
Geese and ducks (<i>Anatidae</i>)	22.2	-	7.4	-	0.2
Seal (<i>Phocidae</i>)	4.0	48.7	0.9	-	5.2
Caribou (<i>Artiodactyla</i>)	-	-	1.2	-	0.1
Fish (<i>Osteichthyes</i>)	0.2	-	-	-	0.02
Shell (<i>Mollusca</i>)	-	-	0.1	-	0.01
Bird (<i>Aves</i>)	2.2	-	0.2	0.6	0.3
Mammals (<i>Mammalia</i>)	31.3	?	98.0	9.7	15.01
Voles (<i>Cricetidae</i>)	0.1	-	-	-	.009
Non-diagnostic	1.6	6.2	0.2	0.8	0.8
Total	124.0	464.9	359.0	31.7	-
Grand total = 979.6 gm.					
(*MacLean 1987:57-58)					

Table 6.4

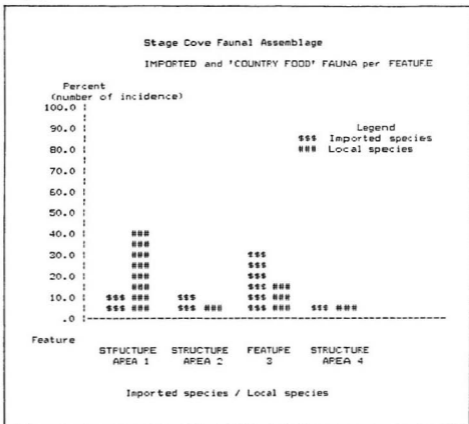


Table 7.1

Structure Area I Nail Distribution: Excavation Area vs. Nail Size and Shape*					
Provenience	Small	Medium	Large	Spike	Bent
North-west corner units	-	1	-	-	-
South-west corner units	1	1	2	-	-
Small trench (east end pit)	9	2	-	-	-
Large trench (doorway)	3	2	-	-	-
Large trench (midsection)	4	6	3	-	-
Large trench (north end)	-	1	2	1	-
Fireplace	7	10	2	5	-
North-east corner units	-	-	-	-	-
South-east corner units	-	-	-	-	-
West End (refuse deposit)	30	28	16	1	11
Structure Area I test units = 22					
Total identified = 127					
Total unknown = 332					
Total nails-nail fragments = 459					

Table 7.2

Structure Area I Nail Distribution: Excavation Area vs. Head Type					
Provenience	Head types: Rose	T	L	Headless type	Unknown*
West End	81	31	1	9	143
North-west corner units	2				
South-west corner units	7			1	6
Small trench (east end pit)	7	1			10
Large trench south end (doorway)	5	1	1	1	13
Large trench midsection	1	2			11
Large trench north end					10
Fireplace	6	2	2		1
North-east corner units					
South-east corner units					
Structure Area I Test Units =					22
Total identified nails with heads = 161					
Total un-identified nails with heads = 216					
Total nails & fragments = 459					
(*Rusted or head absent)					

Table 7.3

Structure Area 1 Nail Distribution: Level vs. Nail Size and Shape					
Provenience	Small	Medium	Large	Spike	Bent*
Level 1			3		1
Level 2	41	46	40	2	5
Level 3	6	13	2	6	5
Level 4	-	-	-	-	-
Level 5	-	1	-	-	-
(east end pit floor)					
Total identified = 170					
Total unknown = 159					
Total nails, spikes & fragments = 459					
(*west end refuse deposit)					
Structure Area 1 Nail Distribution: Level vs. Head Type					
Provenience	Head types: Rose	T	L	Headless	Unknown**
Level 1	3			1	3
Level 2	63	34	3	9	107
Level 3	24	7	1	1	80
Level 4	-	-	-	-	-
Level 5	2				4
(east end pit floor)					
Total identified nails with heads = 161					
Total un-identified nails with heads = 194					
Total nails and fragments = 459					
(**degraded or head absent)					

Table 7.4

Structure Area 2 Nail Distribution: Level vs. Nail Size and Shape					
Provenience	Small	Medium	Large	Spike	Bent
Level 1	2	3			-
Level 2	23	26	11	-	13
Disturbed surface (entire feature)	1	5	7	1	2
Total identified = 92 Total unknown = 116 Total nails and fragments = 259					
Structure Area 2 Nail Distribution: Level vs. Head Type					
Provenience	Head types: Rose	T	L	Headless	Unknown*
Level 1	1	-	-	-	3
Level 2	29	21	6	10	86
Disturbed surface (entire feature)	15	8	1	3	25
(*degraded or head absent) Total identified = 94 Total unknown = 165 Total nails, spikes and fragments = 259					

Table 7.5

Feature 3 Nail Distribution: Level vs. Nail Size, Shape*					
Provenience	Small	Medium	Large	Spike	Bent
Level 1	4	6	2		4
Level 2A	15	57	42		43
Level 2B	6	23	20	1	21
Disturbed surface (entire feature)	1	8	1		3
(*complete nails) Total identified = 196 Total unknown = 40 Total nails,spikes,fragments = 236					
Feature 3 Nail Distribution: Level vs. Head Type					
Provenience	Head type: Rose	T	L	Headless	Unknown**
Level 1	3	-	4	1	7
Level 2A	46	21	11	14	12
Level 2B	22	9	3	6	24
Disturbed surface (entire feature)	4	1	2	3	3
(**degraded or head absent) Total identified = 143 Total unknown = 93 Total nails, nail fragments = 236					

Note; levels 2A and 2B were differentiated on the basis of quantity differences in pipes and other artifacts plus slight matrix differences. Stylistically their artifacts date to the documented occupation period.

Table 7.6

Structure Area 1 Wood Samples: Excavation Area and Level vs. Wood Type		
Provenience	Level	Wood Type
West end	2	oak
	2	white pine
	2	spruce
	2	pine
	2	fir-cedar(?)
	2A	larch
North-east corner	3	softwood
	3	spruce
	4	spruce
Small trench (east end pit)	2	pine
	3A	softwood
	4	unidentified
	5A	spruce
	5B	pine
	5B	oak
Large trench mid-section	3	white pine
	3	spruce
	3	unidentified
Fireplace	2C	hemlock
Structure Area 1 Test Unit	2	unidentified
Total Wood Samples = 20		

Table 8.1

Comparative Usage of Cartwright's Posts 1770-1779		
Occupation phase - Post	Function	Historic context
Pioneer:1770-1771 ; Cape St. Charles	sealing post	Cartwright takes over Darby's sealing facilities.
Pioneer:1770-1771 ; Ranger Lodge	headquarters post; harbour-supply depot, fishing-trapping-hunting-fur trade.	Darby's house and buildings renovated, new houses and structures built; competition with other European merchants begins; Inuit overwinter near Ranger Lodge and perhaps at Stage Cove.
Competition:1771-1774 ; Stage Cove	sealing post; stage and shoremen's house built.	Ranger Lodge occupation continues; Cartwright establishes additional posts in St. Lewis Sound, i.e. salmon fishing stations on the St. Lewis River and at Port Marnham; competition with other European merchants intensifies i.e. Noble & Pinson evict Cartwright from Cape St. Charles, tear down his stage, steal a boat; Inuit raiding of European posts diminishes and trading increases, especially with Cartwright; Inuit family group taken to Britain where all but one dies of smallpox; Inuit overwinter at Stage Cove.

Table 8.1 Cont'd

Comparative Usage of Cartwright's Posts 1770-1779		
Occupation phase - Post	Function	Historic context
Settlement:1774-1775 ; Stage Cove	headquarters post; harbour-supply depot, fishing-trapping- hunting-fur trade.	Quebec Act passed (sanctions overwintering of servants at British sealing/fishing posts); Cartwright's winter- house built along with more servant houses,shops,garden; roof of Indian house at site burns and is repaired; Ranger Lodge occupation continues; Inuit trade with Cart- wright appears to diminish; Quebec Act implemented; servant party sent to claim rivers in Sandwich Bay; servants overwinter in Sandwich Bay; Cart- wright moves to Sandwich Bay and builds another winter house, 'Caribou Castle.'
Abandonment:1775-1779? ; Stage Cove	occupation apparently continues as a sealing- fishing post.	Cartwright moves much of his household furni- ture and possessions to Sandwich Bay; Ranger Lodge occupation con- tinues; Stage Cove is raided by an American privateer; Stage Cove apparently abandoned.
(Cartwright 1792 vol.1:133; vol.2:14-64,362,485).		



Plate 1.1 White Bear Point looking south. Stage Cove is at centre, the field camp tents are just back from the shore and most of the site structural remains and features are on the ridge to the right. St. Charles Channel is to the left, White Bear Sound to the extreme right and Cape St. Charles is the prominent hill in the upper right background.



Plate 1.2 Structure Area 1, Cartwright's house, looking north-east. In the foreground and at the middle left are two low ridges marking the feature's north and south perimeters. In the background M.S. Biggin stands on the edge of the chimney/fireplace feature. Approximately two metres west of it is a small, shallow, cultural depression.



Plate 1.3 Structure Area 1 looking south-west. The feature's main excavation trench is at the left. Its north end cuts across the raised perimeter, its south end lies in the house porch/doorway. At centre is the smaller trench in the feature's east end pit.



Plate 1.4 Structure Area 2, a probable servants household, looking east. The feature's excavation unit was located in the far upper right at the grass edge.



Plate 1.5 Feature 3, a site midden, looking east. The feature proper is defined by the patch of grass and shrub at the centre left, just below the ridge in the background. The feature's excavation unit was located at the right of the grass patch, at its low end.



Plate 1.6 Structure Area 4 looking east. The test and excavation units are at the feature's extreme left and right, respectively. The trowel in the foreground and 40 centimetre scale bar in the background mark the feature's rim on the west and east. A possible entrance way is marked by a gap in the rim.

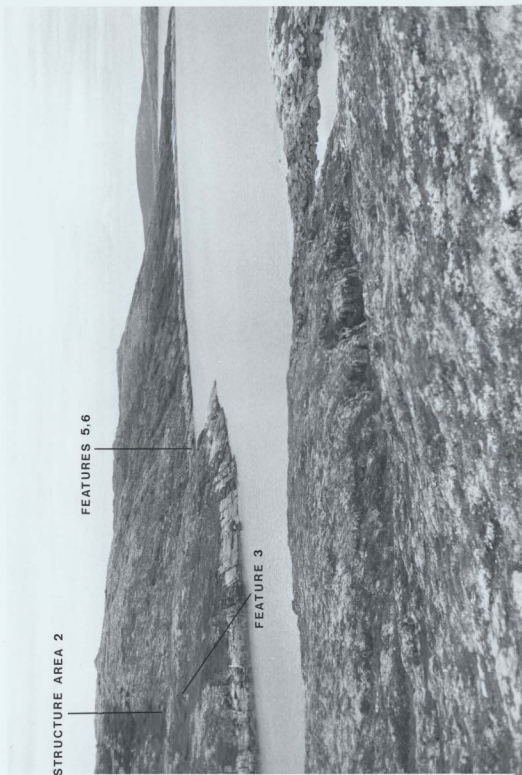


Plate 1.7 Stage Cove looking north. Features 5 and 6 are just above the sloping bedrock of the small point at centre. Barely visible at the left are Structure Area 2 near the ridge crest and Feature 3 at the head of a shallow gully. St. Charles Channel is at the upper right.



Plate 4.1 Structure Area 1 looking north. A narrow groove within and diagonal to the excavation trench is probably a footer trench for floor boards or an interior partition wall.



Plate 4.2 Structure Area 1 looking east. The east end pit is in the left foreground and the main excavation trench is immediately behind, oriented east-west.

The fireplace/chimney feature follows at the left of the tripod. A Marine Atlantic coastal boat heads south in St. Charles Channel for Cape Charles.



Plate 4.8 Structure Area 1 main excavation trench, south end looking north. The doorway cobbles are in the foreground with the key and spoon in situ.



Plate 4-4 Structure Area 1 east end pit looking west. The pit's rim crest is at the upper right and brick fragments rest on the rim edge to the immediate left.

The pit bottom is to the immediate right of the large cobble and in the background are remains of boards oriented north-south.



Plate 4.5 Structure Area 1 east end pit looking east. Remains of what may be roof boards are in the foreground and in the background is the pit bottom.



Plate 4.6 Structure Area 1 chimney rubble looking west. At the right are tumbled bricks and mortared rock in a whitish, gritty mortar matrix. At the left is a black, greasy soil. This cultural deposit was filled with artifacts and charcoal, a piece of which is at the white arrow point.



Plate 4.7 A later view of the chimney rubble and unit featured in Plate 4.6, looking north. A flagstone from the living floor is surrounded by the black, greasy soil.



Plate 4.8 Structure Area 1 refuse deposit looking west. Degraded wood beams, boards and nails are at centre in a brown, rooty peat overlying sterile sand, gravel and cobbles.



Plate 4.9 Copper artifacts.

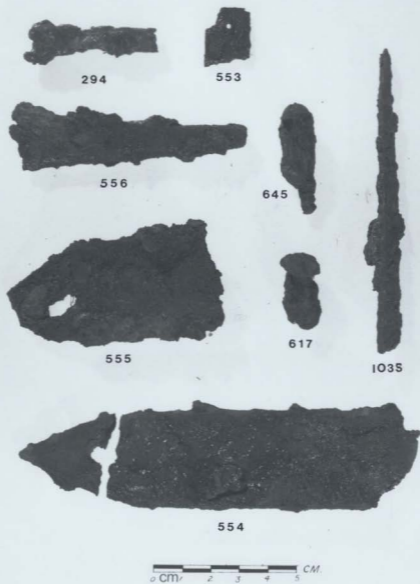


Plate 4.10 Tool parts.



Plate 4.11 Coal and paper-like material.

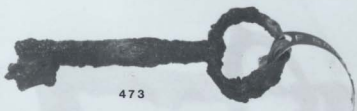


Plate 4.18 Doorlock, key.

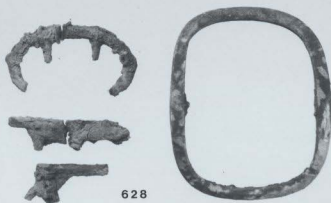
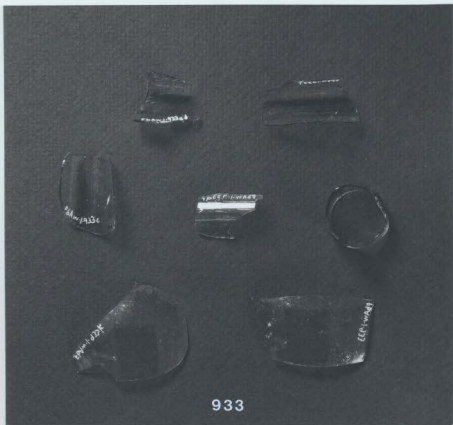


Plate 4.18 Lamp glass, shoe buckle.



2



892



1030



1027

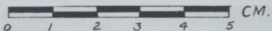


Plate 4.14 Lead sprue, miscellaneous items.

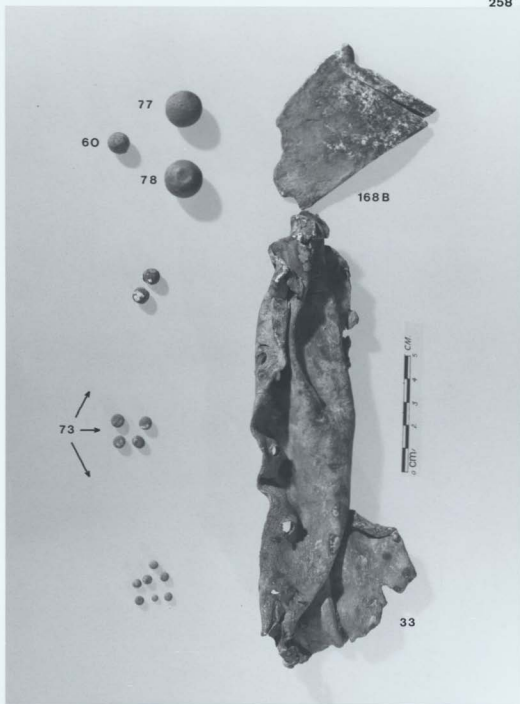


Plate 4.15 Lead ammunition.



161



145



53



1031



7



297



203

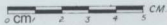


Plate 4.16 Gunflints.



Plate 4.17 Buttons (oblique).

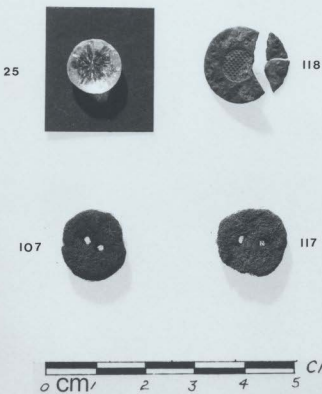


Plate 4.18 Buttons (overhead).



1066

0 CM 1 2 3 4 5 CM

Plate 4.19 Shoe (top-overhead).



1066

0 1 2 3 4 5 CM

Plate 4.20 Shoe (bottom-overhead).

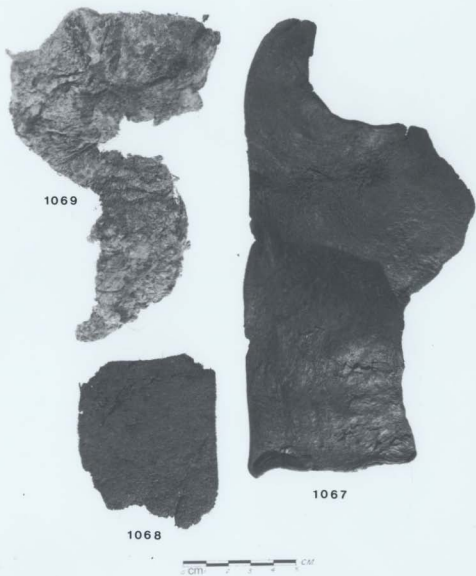


Plate 4.21 Leather items.

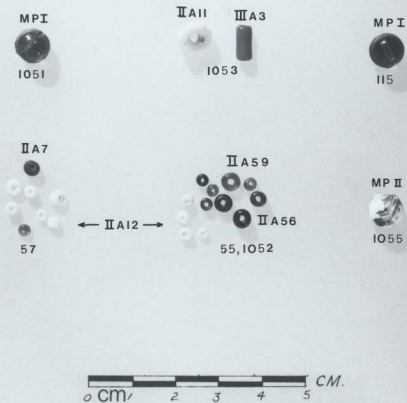


Plate 4.22 Beads.

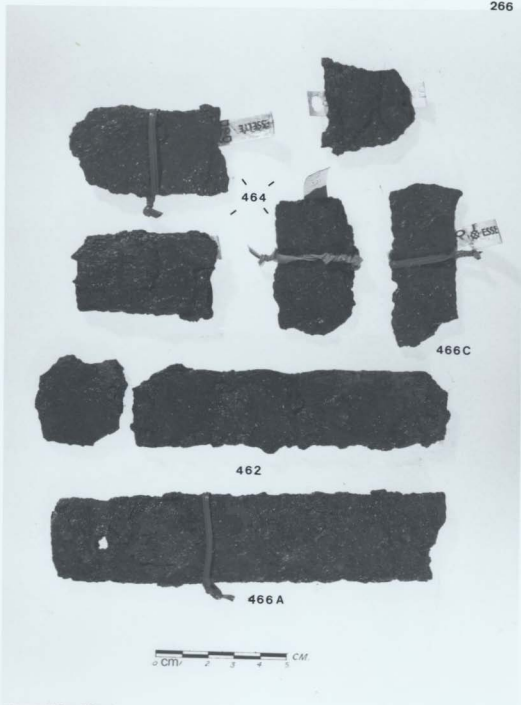


Plate 4.29 Band iron.

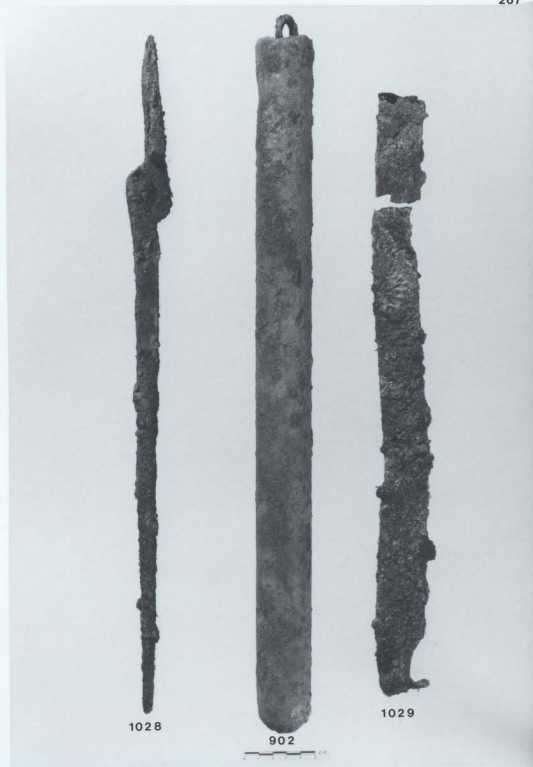


Plate 4.24 Counter weight, iron tong, barrel hoop.



Plate 4.25 Wooden pail/barrel end.



471



847



464 A



Plate 4.26 Hammerhead, mallet ring and axe head.



1063



113



139

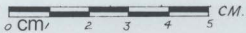


Plate 4.27 Retouched chert & glass.

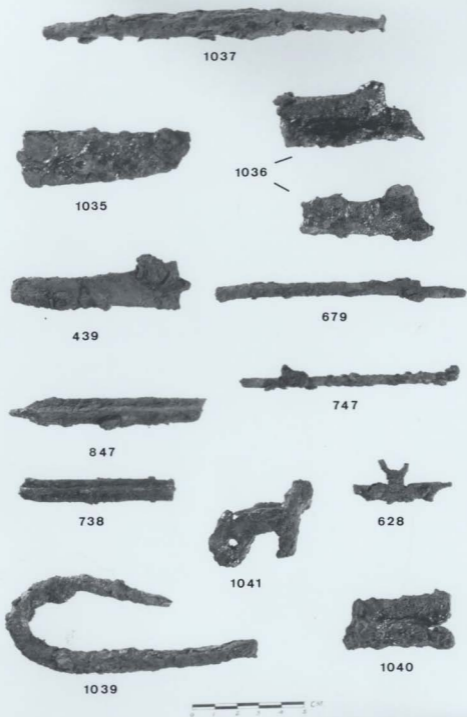


Plate 4.28 Various tool parts, hardware.

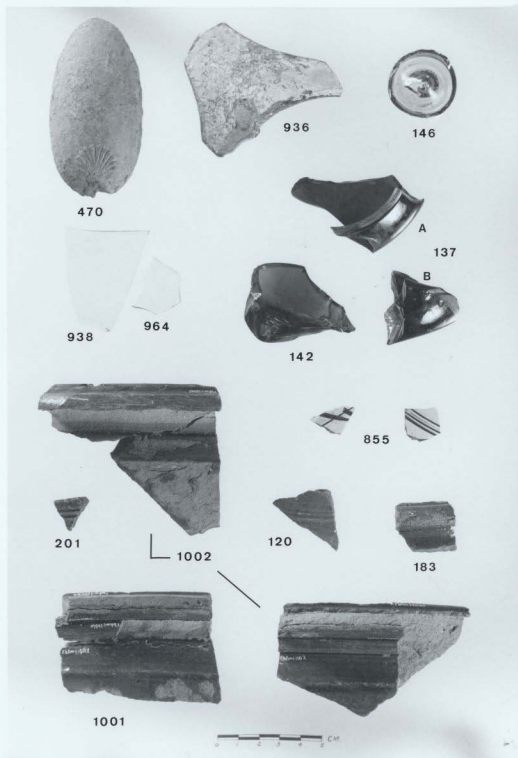


Plate 5.1 Top row: silver table spoon bowl, crizzled glass, pharmaceutical bottle base; 2nd row: window and 'wine' bottle glass; 3rd and 4th rows: North Devon gravel free ware, except for #855 - lead glazed slipware (combed yellow).

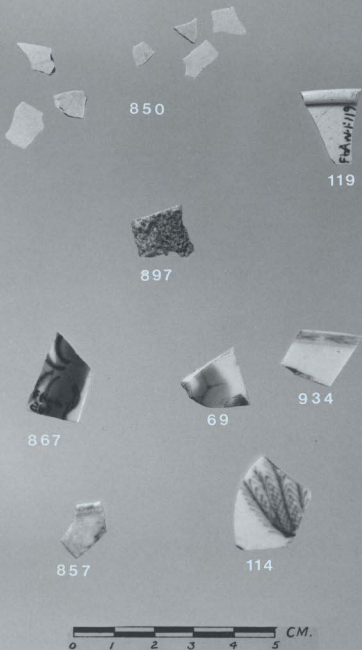


Plate 5.2 Top row: tin enamelled earthenware; middle row: melted blue glass; bottom 2 rows: Underglaze blue Chinese porcelain and 1 piece of English porcelain, #857.

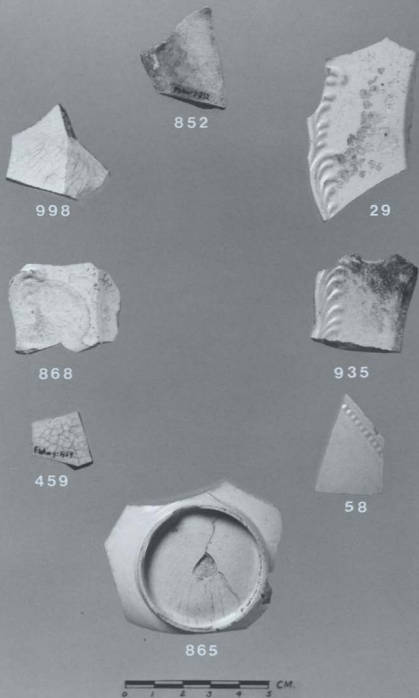


Plate 5.8 Creamware.

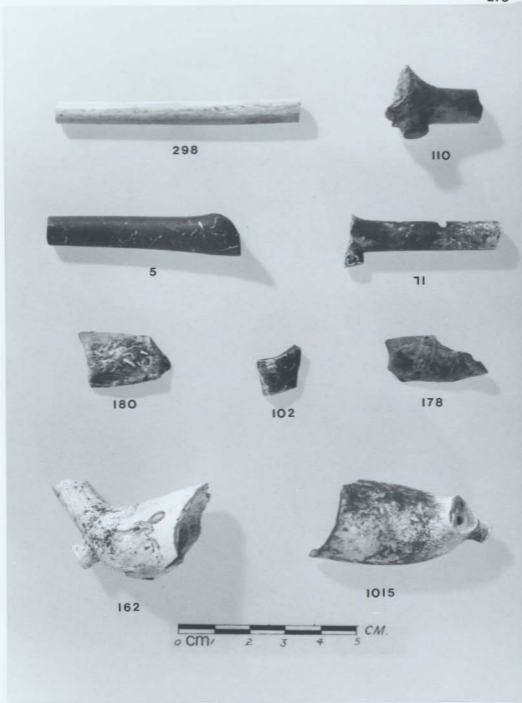


Plate 5.4 Tobacco pipe stems and bowls.



Plate 5.5 Decorated tobacco pipe bowls.

Duck (*Anatidae*)Oldsquaw
(*Clangula hyemalis*)White-winged scoter
(*Melanitta deglandi*)Common eider (*Somateria mollissima*)Harp seal
(*Phoca groenlandica*)Bearded seal
(*Erignathus barbatus*)



Plate 6.2 Domesticated faunal remains.

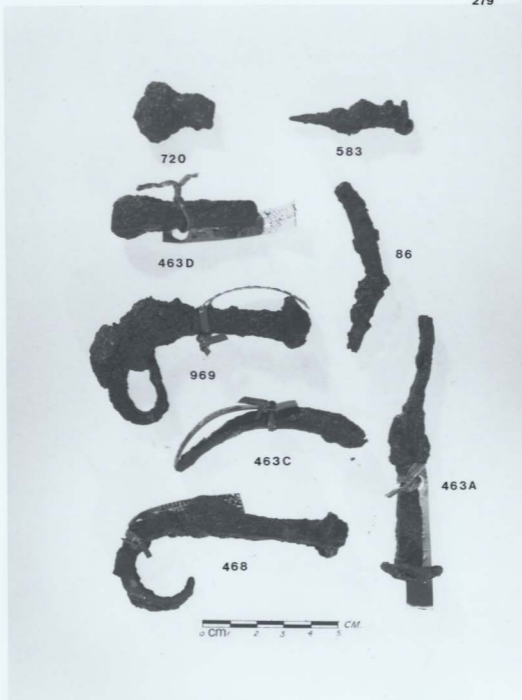


Plate 7.1 Assorted nails (small and medium).

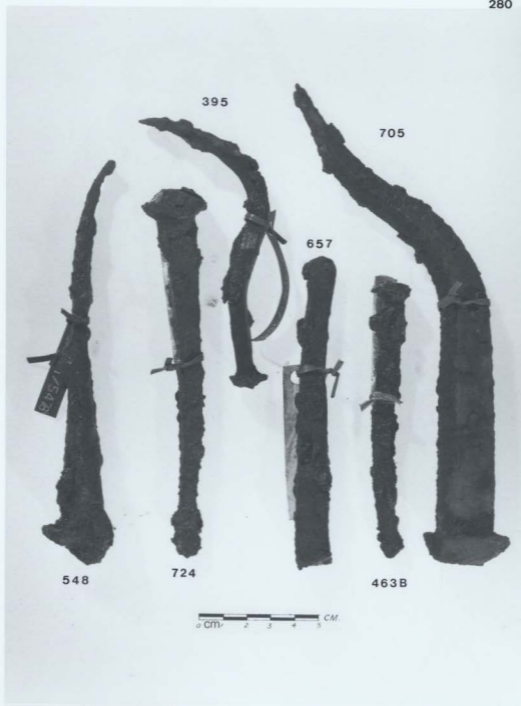


Plate 7.2 Assorted nails (large).

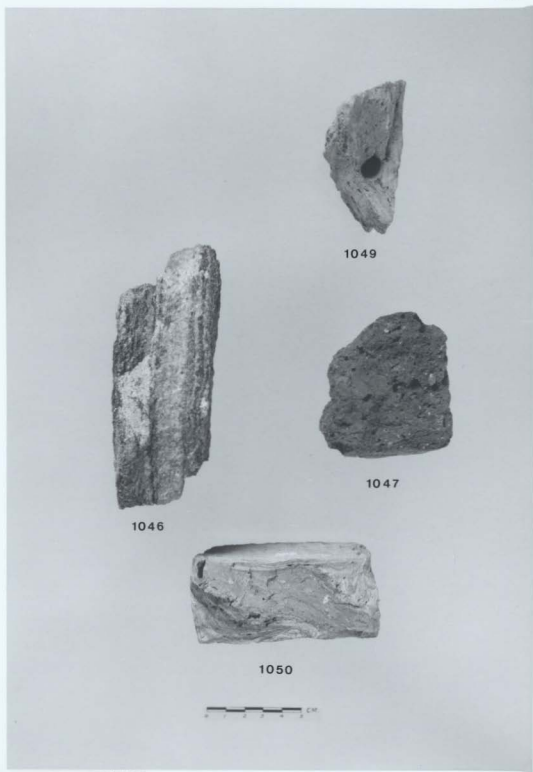


Plate 7.9 Assorted bricks.

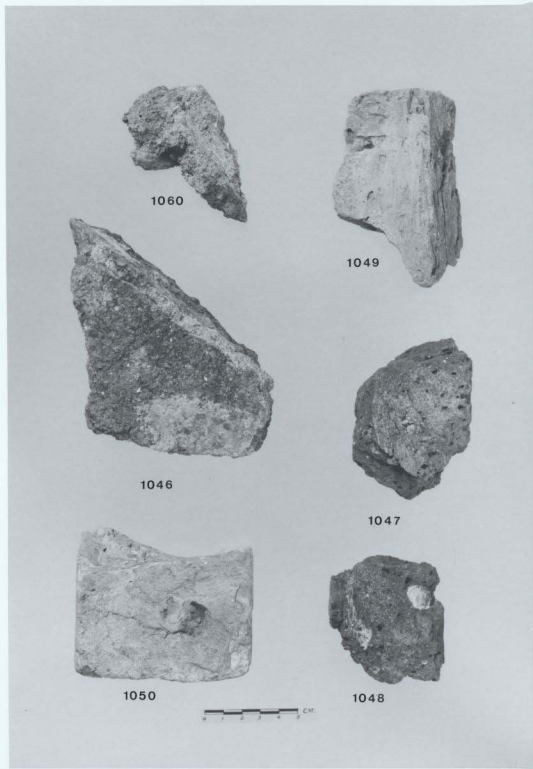
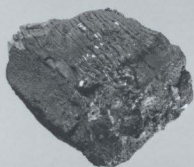


Plate 7.4 Assorted bricks, mortar pieces.

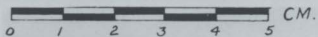


B

1032



A



CM.

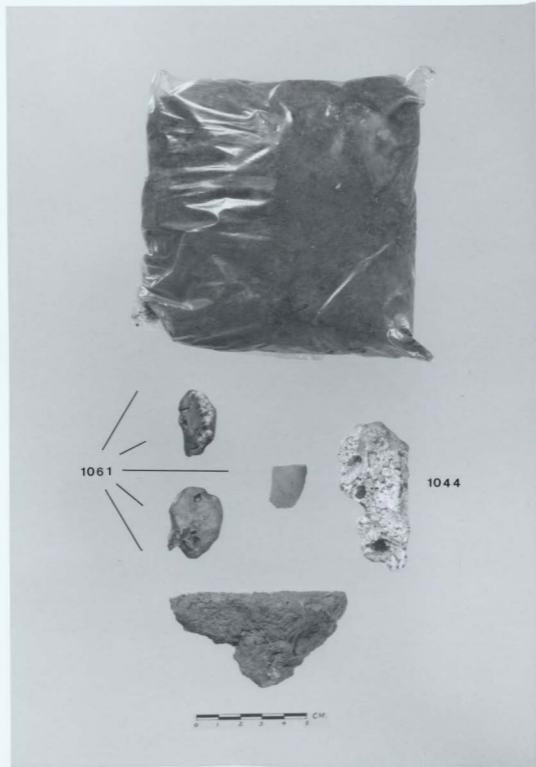


Plate 7.6 Degraded fragments of brick and brick temper.



Plate 7.7 Structure Area 1 excavation unit north of the chimney feature, looking south. A whitish board or beam on edge is oriented at a diagonal at the trowel handle base. North of this piece and oriented perpendicular to it at about its midpoint is a second, dark colored wood piece. This wood appears to be the remains of either a wood framed drain or a well.



Plate 7.8 Structure Area 1 doorway/porch looking south. The cobbles were tightly fitted in a matrix of black sandy peat. A door lock (474) was found in a brown rooty peat overlying the cobbles in the top unit and a door lock key (473) and silver spoon bowl (470) in the same matrix in the bottom unit.



Plate 7.9 Structure Area 1 looking west. The shallow wide trench in the foreground is probably a drainage ditch. In the background is the chimney feature and immediately behind it P. Woodley excavates in the feature's main excavation trench.



Plate 7.10 Stage Cove ridge looking south. The tripods to the right mark Structure Area 1 and the summit of White Bear Point is to the far left. Cape St. Charles, the prominent hill in the background, marks the Strait of Belle Isle.



