CERAMICS FROM SEVENTEENTH CENTURY FERRYLAND NEWFOUNDLAND (CgAf-2, LOCUS B)

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CERAMICS FROM SEVENTEENTH CENTURY FERRYLAND, NEWFOUNDLAND (CgAf-2, Locus B)

by

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ABSTRACT

Ferryland was in use as a shore station by English fishermen by 1600. George Calvert established a settlement in 1621 to exploit the cod fishery and Ferryland remained an important fishing centre to 1700 under David Kirke and his heirs. Documents suggest there was a core of resident families and with secondary sources give some indication of the social and economic life of these planters. Archaeology at Ferryland has been largely oriented to discovering the site of the Mansion House. Recent excavations at Locus B have uncovered an area in use c. 1630-1670. Many ceramic vessels have been recovered. Analysis of this material permits the testing of hypotheses about Locus B and about social and economic conditions on the English Shore. Such an analysis requires explicit identification of the wares and vessel forms occurring. The distribution of wares and vessel forms can be compared with occurrence at other Early Modern sites. Analysis suggests that Locus B was used as a cookroom until c. 1640, that it is near the Mansion House or some other gentry residence and that the inhabitants depended on imported fats, enjoyed good health and were avid consumers of alcohol. An exhaustive catalogue of distinguishable vessels is presented and major finds are illustrated.

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LIST OF ABBREVIATIONS

CEW	Coarse Earthenware
CSW	Coarse Stoneware
DCB	Dictionary of Canadian Biography, volume I (Brown and Trudel 1966)
DNE	Dictionary of Newfoundland English (Story et al. 1982)
GB	Great Britain
OED	Oxford English Dictionary (Murray et al. 1970)
Poteries	Pour la Normalisation de la Description des Poteries (Balfet et al. 1983)
POTS	Potomac Typological System (Beaudry et al. 1983)
TIN	Tin Glazed Earthenware

Abbreviations used in ware/ vessel form matrices are explained in Table 22, p.233.

Abbreviations used in the bibliography are explained at the end of References Cited.

CHAPTER 1

THE EARLY HISTORICAL GEOGRAPHY OF FERRYLAND

Location

Ferryland is a major outport on what is known locally as the Southern Shore, that is the eastern coast of the Avalon Peninsula south of St. John's, Newfoundland (Figure 1). There are a dozen or so outports along this coast, some better harbours than Ferryland, yet it has been, from the seventeenth century, a fishing and administrative centre (Head 1976: 10). This shore lies closer to Europe than any other part of North America and toponymy suggests that its harbours were named and explored by the Portuguese early in the sixteenth century (Harisse 1900). Ferryland is notable for a prominent headland which may have had a value as a recognizable landfall and Ferryland Head gave its name to the harbour. The original name, Farilham, on Verrazano's world map of 1529 is a version of either the Portuguese farelhao = "steep rock, steep little island, reef, point" or the French forillon = "cape, point" (Seary 1971: 28, 210, 303). The harbour is first noted by the English as Farillon, in the 1590s (Wyet 1594, Leigh 1597).

Native Peoples

There is no archaeological evidence that either the Southern Shore in particular or the Avalon Peninsula in

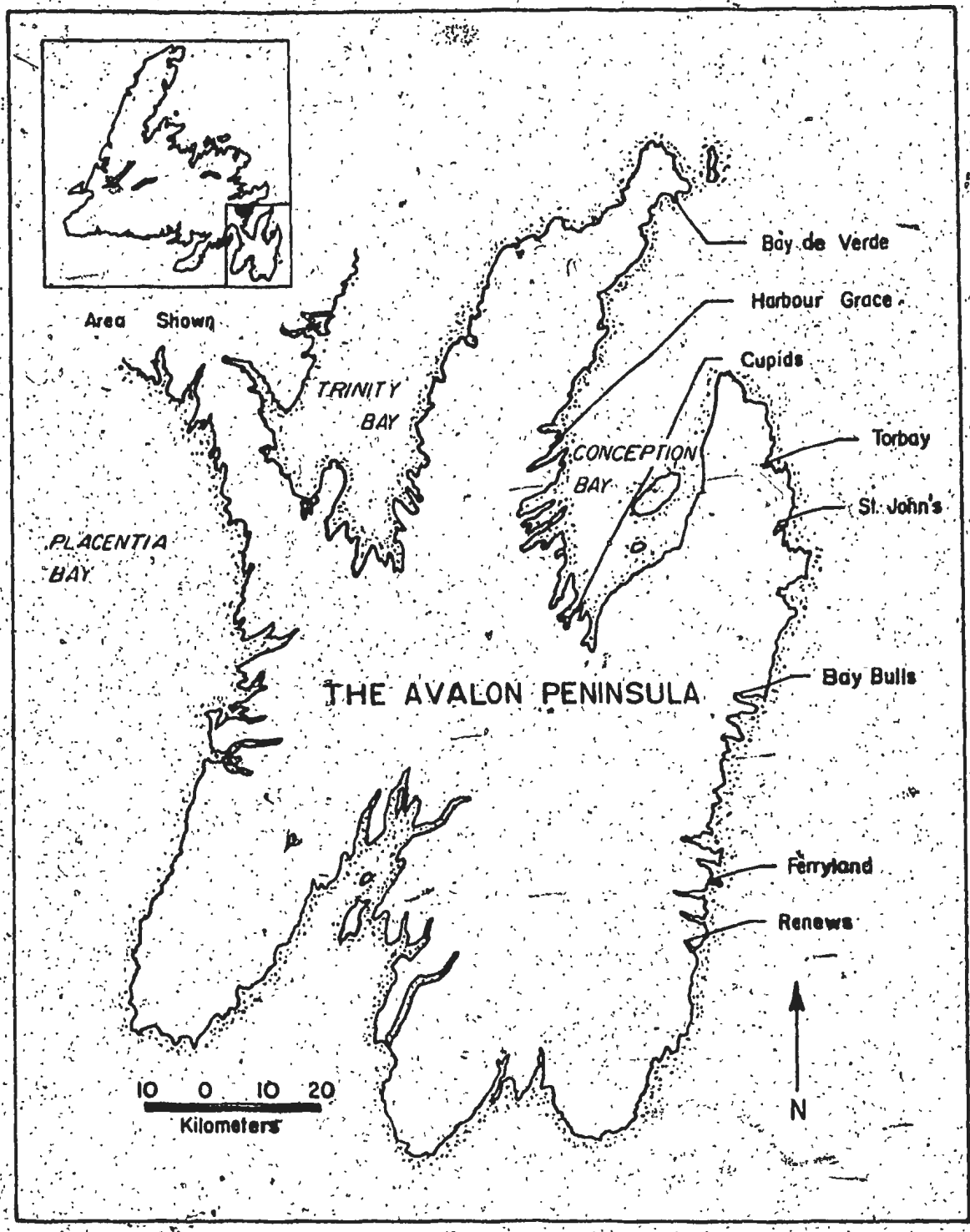

Figure 1. The Avalon Peninsula, showing major mid-seventeenth century fishing establishments.

general were ever inhabited by native peoples[1]. The closest known Palaeo-Eskimo and Recent Indian sites lie deep in Trinity and Placentia Bays on or near the narrow isthmus that joins the Avalon to the rest of the Island of Newfoundland (Robbins 1982, Evans 1982, Linnamae 1971). Wyet's expedition encountered Beothuks in Placentia Bay in 1593 (Wyet 1594) and in 1612 John Guy traded with Beothuks in Trinity Bay (Guy 1612) but there is no other specific documentary evidence of aboriginal presence on the Avalon (Quinn 1981). Mason observed in 1620 that there were "but few Salvages in the north and none in the south parts of the Countrie" (1620: 96). The Peninsula's food resources were more restricted than those of the rest of Newfoundland, lacking notably the reliable return of breeding harp seal herds. Despite the presence of caribou, harbour seals, nesting sea birds, salmon and cod, native maritime hunter-gatherers never found a way to link the resources of this sub-region into a stable subsistence round.

Cod does not seem to have been an important element in the subsistence of the aboriginal inhabitants of Newfoundland. It might reasonably be asked what Europeans brought to the cod fishery that permitted them to subsist on this

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[1] The few individual prehistoric artifacts reported, mostly from locations near Trinity or Conception Bays, indicate that aboriginal peoples may have visited the region (J.A. Tuck, personal communication 1986).

single plentiful species. There are several plausible explanations. 1. A technical and economic superiority in European fishing equipment: in the Middle Ages Europeans developed techniques of fishing with multiple metal hooks on long fabric lines (C.A.Wilson 1984: 33). These were more efficient than the native analogues, bone gorges on skin or vegetable fibre lines. From the early contact period European metal hooks in particular were sought after by experienced native traders (Verrazzano 1524: 141). The Beothuks Guy encountered had already obtained hooks, lines and leads (Guy 1612: 72). 2. A considerable technical superiority in European food preservation technology based on salting: this technique, adopted by the English about 700 A.D. (C.A. Wilson 1984:30), was not employed by the native peoples of the Northeast who in fact disliked salty foods (Anon. c.1543, Lescarbot 1617, II: 395). 3. The great economic advantage of a market economy: the Europeans did not depend on a full subsistence round at Newfoundland. Since cod could be preserved and marketed elsewhere it could pay for other necessities.

The advantages that the Europeans brought to the exploitation of the cod resource were not simply technical. Cod fishing was possible as a way of life because the finished product was part of an international economy.

The Newfoundland Fishery in the Sixteenth Century

Portugal and France prosecuted the first cod fisheries at Newfoundland, each sending 100 ships annually by 1520 (Matthews 1973: 69). Both countries had supplies of cheap salt, an undeveloped agriculture, limited large scale meat preservation and large Catholic populations. Portugal concentrated its efforts on the Avalon Peninsula, while Breton, Norman and Basque fishermen were scattered around the rest of the Island. The early fishery was inshore, the offshore Grand Banks fishery developed only gradually. (Innis 1940: 22,26). It is hard to say whether this early fishery was predominantly dry or green. For a dry cure fish are lightly salted and wind dried on land rather than heavily salted and kept wet on board ship as in a green cure. Each technique has its advantages (Faulkner 1985: 59,60). The green cure became essential as the banks fishery was developed because the banks are too far offshore for regular landings.

At least some of the Portuguese prosecuted a dry fishery on the Avalon (Matthews 1973: 69) and it is possible they would have exploited the cobble beach at Ferryland as a curing station. Although the French used the green cure at the Banks from an early date (de la Morandière 1962-1966: 257) they needed nearby shore stations to replenish supplies of water and wood and perhaps to store chaloupes

(Morison 1971:422). They seem to have dominated certain harbours of the eastern Avalon, notably St. John's and Renews (Rut 1527, Cartier 1545).

The second half of the century saw the intrusion of two new or at least formerly minor participants in the fishery, first Spain and later England. The rise and fall of the Spanish fishery, c. 1550-1600, is not important in this context, as it was predominantly a green fishery carried on offshore (Innis 1956). The English cod fishery grew swiftly in the 1570s and 80s from roots established by West Country fishermen in an earlier period. A request for convoy protection in 1522 and the fixing of a tax rate on "fyshage of Newfoundlande drye" in 1527 suggest that the English were intermittently present as early as the 1520s (Matthews 1968: 36). An act of Henry VIII exempts "Newland" fish from an import embargo and an act of Edward VI mentions Newfoundland as "commodious for Fishing" (GB 2/14/1542, 3/9/1548). It has been asserted that the area between Cape Spear and Ferryland Head was the focus of English activity in this early period (Quinn 1974: 177, 1977: 353,355). The evidence however is scant.

English fishermen were still in a distinct minority at Newfoundland as late as the 1580s. The combined English fisheries at Iceland and Ireland satisfied most of the home

demand for dried fish, and England still had no export market (Matthews 1968: 39). After the defeat of Philip II's Armada in 1588 the English rapidly expanded their fish production just as Spanish and Portuguese participation in the industry collapsed (Cell 1969: 20-33). This expansion of production was dependent on an expansion into European markets. France's commitment to the fishery was erratic at this time and England, almost fortuitously, had the opportunity to export first to France and soon further south (Matthews 1968: 44, 1973: 72).

The fate of the Portuguese fishery had been tied to Spanish fortunes since the union of the Iberian crowns in 1580. It was the Portuguese who had developed a dry fishery based on the Avalon. Salt was a scarce commodity for the English so it was most economic for them to use the dry cure. This tended to give their efforts a sedentary character and to concentrate them likewise on the Avalon (Cell 1969: 5). There they found the resources and climate for light salting and could, incidentally, obtain Portuguese supplies of salt (Innis 1954: 37, Quinn 1977: 357). When the Iberian fishing effort collapsed the English could intensify control over the area but their need for salt, which now only the French could supply, meant that they would still tolerate French vessels if not shore stations in this region (Quinn 1977: 417).

Of the harbours used by the English as shore stations during this period, certainly St. John's was important (Parkhurst 1578, Hayes 1584). Ferryland seems to have been another harbour already in regular use. The Grace of Bristol encountered 22 English ships there late in the summer of 1594 (Wyet 1594) and early in the season of 1597 Charles Leigh bought a pinnace in Ferryland for his expedition to the Madgalens from the admiral of the harbour (Leigh 1597). (The admiral was the master who landed earliest, claimed the handiest stretch of shore and had the right to settle disputes, if he was strong enough.) Ferryland continued to be used as a seasonal base into the next century (Guy 5/16/1611, Crout 4/13/1613).

Material evidence for this kind of seasonal occupation is likely to be scant, although the original structures were extensive. The dry fishery required floored platforms or stages for cleaning and splitting the fish, raised beds of evergreen boughs or flakes where there was no extensive cobble beach, small shelters or tilts (in one sense of the word) for protecting partially made fish from poor weather, large fixed containers or train vats for solar rendering of marine oils and cook rooms for the men involved in shore work (Guy 8/30/1611: 99, Younge 1658-1708: 56, Moll 1713, DNE, Faulkner 1984). Unfortunately for the material record such structures were commonly recycled as firewood at the

end of each season (GB 2/10/1635). Where remains survive they will be distinguishable only with difficulty from similar but more recent structures. Still, many men were employed on shore in the dry fishery, two for every three on the boats (Younge 1658-1708: 57) besides which the boat crews would normally return to the shore station to rest and eat. Ceramic artifacts, including tobacco pipes, which show some temporal variation are the likeliest means of dating such structures.

Colonization

It is possible that in the mid sixteenth century the Azorean Portuguese attempted to set up colonies in the region they called Tierra Nueva which included the Island of Newfoundland (Harisse 1900: xxiv, Quinn 1977: 359). These efforts did not succeed and have left few traces even in the documentary record. In the late sixteenth century Basque whaling crews often remained in the Strait of Belle Isle until December (GB 5/21/1610). Occasionally the weather forced them to overwinter (Barkham 1982) but this was disastrous for the crews concerned (Tuck 1984). The English then were the first Europeans since the mediaeval Norse to deliberately and successfully overwinter.

Prowse maintains that the English left winter crews behind in the sixteenth century but he has no real evidence

for his assertion (Prowse 1895: 59). In fact the suggestion seems unlikely. From Elizabeth's time plantation was advocated by a series of writers. Four of these are distinguished by their extensive knowledge of Newfoundland: Parkhurst (1578), Hayes (1586), Mason (1620) and Whitbourne (1622). These proponents of year around occupation had years of experience at the Island from 1574 on, yet they made no mention of attempts to over-winter prior to Guy's colony at Cupids in 1610, while this and subsequent settlement experiments are reported enthusiastically. It seems reasonable to infer that these observers knew of no earlier attempts at year round occupation, to assume that these seasoned observers would have known of any such attempts, and therefore to conclude that there was no regular practice of intentional over-wintering prior to the establishment of the organized and documented colonization ventures of the seventeenth century[1].

The early 1600s saw a florescence of European joint stock companies set up to exploit trading zones in distant lands (Braudel 1982: 444ff). Many of the English schemes were designed to underwrite the plantation of colonists, among them Londonderry, Virginia, Bermuda and Newfoundland

[1] I am excluding the abortive expeditions of John Hore in 1536 (Matthews 1968: 37) and Humfrey Gilbert in 1583 (Quinn 1940).

Companies, all incorporated at this time. The investors in these various enterprises overlapped considerably (Cell 1969: 53-55, Quinn 1966) and there is some evidence that the organizers of the Newfoundland venture drew lessons from Virginia (Cell 1982a: 6). At any rate the aims of the Bristol and London merchants who set up the Newfoundland Company in 1610 were practical enough.

They had no doubt about the main value of settlement at Newfoundland. The Company charter suggests first that the investors were "intendinge by such plantacon and inhabitinge both to secure and make safe the trade of fishinge" (GB 5/2/1610). Other grander rationales, applicable to any part of the New World, were offered here and elsewhere by proponents of Newfoundland settlement but the special advantages of the Island were more relevant and these were largely, related to the fishery. Whitbourne, for example, defended colonization of the Island with most of the contemporary rationales for settlement anywhere, from "conuerting the Inhabitants to Christianitie" to disburdening England of its "superabounding multitudes", but he presented in greatest detail the case that settlement would permit a more efficient fishery (1622: 122ff, 166ff). He also suggested that overwintering crews would be able to pre-empt fishing rooms. This raised the possibility of establishing a de facto monopoly on the dry fishery and it

is possible this was a disguised part of the strategy of the Newfoundland Company (Lounsbury 1934: 39,48, Cell 1969: 56.) Whatever the precise calculations behind the early plantations, all of those which successfully established permanent residents were fishery oriented.

The Newfoundland Company's plantation at Cupids in Conception Bay was not only the first English settlement in Newfoundland, it was ancestral to subsequent settlements both in its personnel and in the devolution of its patent rights. Its history has been examined by Cell (1969: 53-80, 1982) and archaeological remains were sought in the 1970s (Barakat 1974). The later, successful, colonization of Ferryland is best understood with reference to this early effort, so a brief outline is offered here.

Thirty-nine colonists set out from Bristol in 1610 under John Guy, an experienced merchant. The settlers had detailed instructions to fortify the site, experiment agriculturally, cut spars and planks, make salt, potash and glass, collect samples of ore and, significantly, to fish and trade in cured fish and train oil (Newfoundland Company 1610). The first two winters were mild, the death rate low and the colonists were able to do what the investors had suggested (Guy 10/6/1610). In 1612 Guy brought out 16 women and this can be seen as a turning point towards the

self-replicating European settlement of Newfoundand and, indeed, North America. There were, however, problems. Soil and climate were not as good as hoped. The colonists succeeded in raising vegetables but not grain and the fodder harvested could not keep the animals through the hard winter of 1613 . The settlement was harrassed by the pirate Peter Easton and forced to pay a danegeld of hogs (Crout 4/13/1613). Guy quarrelled with the Company over land he expected and wages due his men. When he withdrew in 1615 he probably took the other Bristol investors with him for they soon established a scion colony at Bristol's Hope, now Harbour Grace (Cell 1969: 71, Seary 1971: 62).

The Company eventually replaced Guy with the capable mariner John Mason, who may have been chosen for a perceived ability to deal with the pirates (Cell 1969: 73, GB 5/29/1620). He was not especially attentive to the fishery (Cell 1982b: 105) and this probably exacerbated the colony's economic instability. Certainly the interim leader Henry Crout thought the company never exploited the fishery as fully as it could have, there being too many who "scorned to torne a Fish" (Crout cited in Cell 1982b: 105). The West Country fishermen nevertheless perceived the colonists as serious competition and by 1618 they were already at odds with the planters (Merchants 12/1618, Slany et al. 12/1618). Mason moved to New England in 1621 and the

Cupids settlement apparently dispersed, although there were still people there about 1624 (W. Alexander 1624: 187).

In Cell's view the original plantation was doomed to failure from the start because it "could not provide a large enough return both to satisfy the company's shareholders and to support a corporate colony" (Cell 1982b: 111). This is a nice explanation because it suggests that settlements not beholden to shareholders might support themselves precariously and this is, after all, what eventually happened. She goes on to make a larger claim that "successful exploitation of the island...did not require settlement" (Cell 1982b: 111) but this is, surely, beside the point. There are many possible reasons for colonization. One of the most important at this time was the expectation by servants of becoming householders in their own right. If settlement was slow to develop a more significant factor may have been, as Cell herself has suggested, the Newfoundland Company's reluctance to allot premises to its servants (Cell 1982a: 7,8).

The eventual fate of the colony at Cupids is relevant here. The absence of documentary references after the 1620s suggests that it was abandoned (Cell 1969: 79). The limited archaeological evidence from the site is inconclusive, although the excavator asserts that occupation was con-

tinuous from 1610 (Barakat 1974: 72,105). His own artifactual identifications do not support this contention however: the earliest objects date from the later seventeenth century (Barakat 1974: 76,79,91,100-102). The features excavated probably do not relate to the 1610 colony or even an immediate successor. We not only lack archaeological evidence for continuity of settlement at Cupids, it would seem we have no archaeological data at all regarding the original plantation.

Although the Cupids Plantation was a business failure it was successful in a different sense: the English were actually established in a new and somewhat inhospitable territory. Settlement took hold at Bristol's Hope rather than at the original colony but the family of Nicholas Guy, who prospered there (Cell 1969: 79), had begun their lives in the new found land at Cupids. The propietory rights that the Newfoundland Company had been granted were divided and sold off to several successors (Table 1). These subsequent ventures met with varying degrees of commercial failure but some succeeded in planting permanent populations (Figure 2). In 1621 John Guy told the House of Commons that there were "But three real plantations in Newfoundland" (Guy 12/1/1621). He was probably thinking of Bristol's Hope, St. John's and the newly founded Colony of Avalon at Ferryland.

Table 1. English Plantations in Newfoundland 1600-1625

DATES	PLANTATION (Location)	PROPRIETOR
1610-c.1630	Cupids	Newfoundland Co. of London and Bristol
1616-c.1619	New Cambriol (Renews[1])	William Vaughan
c.1618 on	Bristol's Hope (Hr. Grace)	Bristol Merchants[2]
c.1618 on	St. John's	Wm. Payne and others[3]
1621 on	Avalon (Ferryland)	George Calvert, Lord Baltimore
1622-c.1626	Renews	Henry Cary, Lord Falkland[4]

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[1] Prowse thought this settlement was at Trepassey (Prowse 1895: 111) but Cell argues convincingly for Renews (Cell 1969: 83-86).

[2] Cell 1969: 71,87, Rogers 1911: 59.

[3] Cell 1969: 72,78; Payne 11/2/1627

[4] Cell 1969: 88-91, Rogers 1911: 60

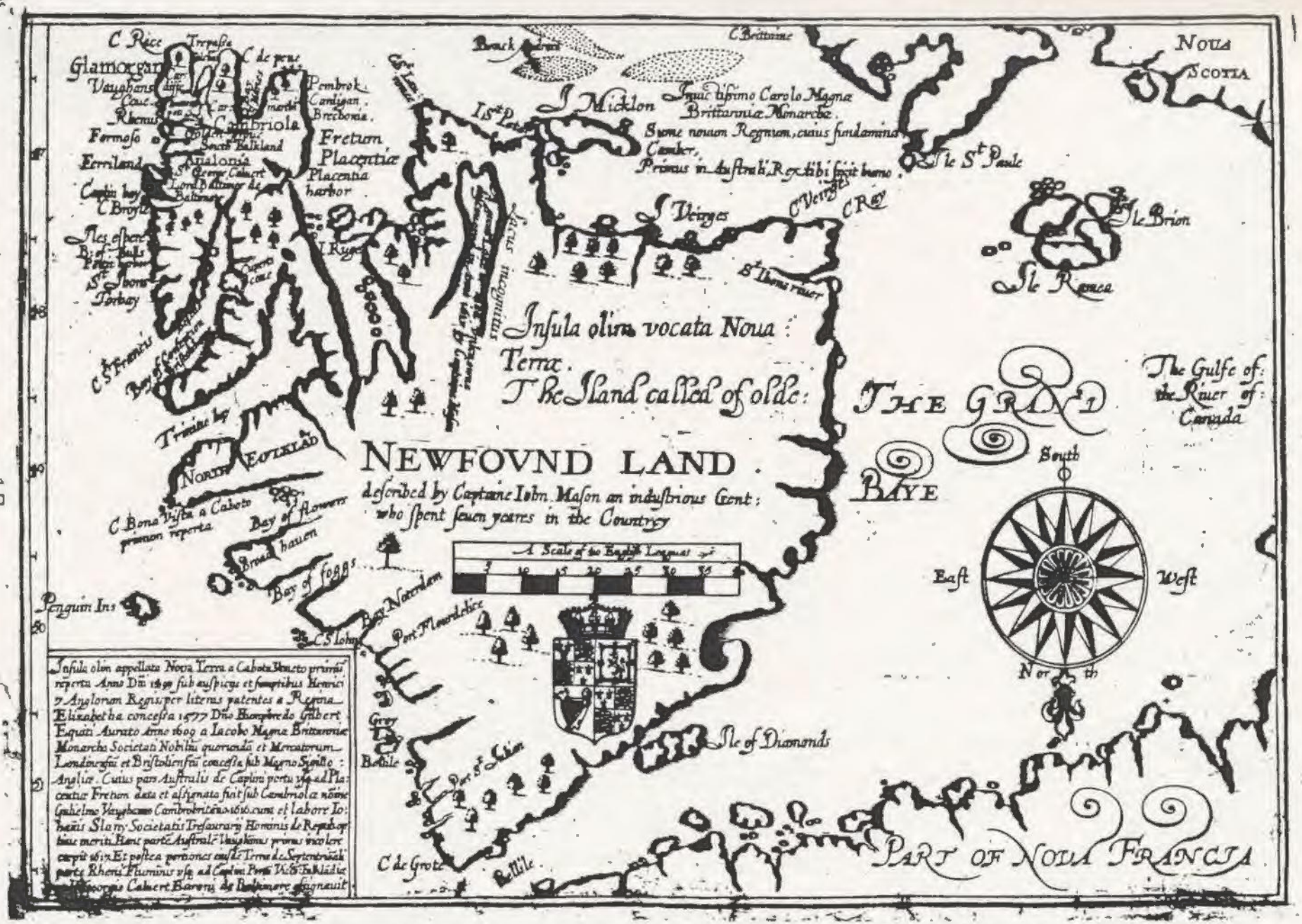

Figure 2. Newfoundland described by John Mason, 1625. Public Archives Canada.

CHAPTER 2

THE HISTORY OF SETTLEMENT AT FERRYLAND

The Calvert Proprietorship 1620-1637

In 1620 Sir George Calvert, later Lord Baltimore, acquired the part of William Vaughan's grant between Aquaforte and Caplin Bay, in other words he bought the already active but not permanently occupied fishing station of Ferryland. This proprietorship was confirmed and extended north to the borders of the St. John's lot by Charles I in 1623 (GB 4/7/1623). Calvert was an investor in the Virginia and East India Companies and had a colony in County Longford, Ireland (Cell 1969: 92). He was Secretary of State and a powerful and important politician of the court party (Frazer 1966). His son Cecil was later to claim that he invested 20 or 30,000 pounds in Newfoundland (C. Calvert 12/23/1651, Celt 1982a: 298n.). This figure may be legalistic hyperbole, indeed the senior Calvert mentioned an investment of 12 or 17000 pounds (Treworgie et al. 8/1652). Whatever the exact figure the Calvert investment was certainly substantial: as a plantation venture Ferryland was heavily capitalized.

A party of 12 men, under Edward Winne, came out in the summer of 1621. They enjoyed friendly relations with the West Country fishing masters and got down to work framing

houses and outbuildings for the plantation. At this point Winne called for animal stock, "Meale and Malt", ordnance, tools for digging, a smith "and also such as can brew and bake" or, as he put it in a postscript, "women would be necessary heere for many respects" (Winne 8/26,28/1621). Over the winter his crew closed in the 44 by 15 foot Mansion House and a 12 by 14 foot parlour addition, an 18 by 12 foot kitchen, a hen house, a storehouse, a forge, a saltworks and a wharf. They also cut wood, sawed planks, dug a half acre garden and enclosed four acres of the plantation in a seven foot wooden "palizado... for the keeping off of both man and beast" (Winne 7/28/1622).

In the spring of 1622 Captain Daniel Powell arrived with provisions, stock and more settlers, including seven women and girls (Powell 7/28/1622, Winne 8/17/1622). The little colony headed into its second winter with a population of about 32. Calvert continued to send out settlers, the death rate was low (Hoskins 8/18/1622), and by 1625 the population is said to have reached 100 (Eburne 1624: 139, Cell 1969: 93)[1]. By this time horses and cattle were established, suggesting an expansion of the subsistence base (W. Alexander 1624: 187, G. Calvert 3/15/1625).

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[1] I think this figure is too high, considering that the over-wintering population in 1628 was about 100, including 40 new arrivals (G. Calvert 8/19/1629, Great Britain 10/9/1628). Perhaps the figure of 100 for 1625 could be interpreted as a summer population.

Meanwhile in 1625 political disappointments led Calvert, now Lord Baltimore, to sell his office (Abbott 3/30/1625). This left him free to declare his Roman Catholic religious convictions. Given the political cirumstances, a colony abroad would have been valuable to a large Catholic household as a refuge and in fact the Calverts retired to Ireland at this time (Lahey 1982: 125). Calvert tried to visit his overseas colony in 1625, perhaps to evaluate Avalon as a refuge, but was not able to do so. The industrious supervisor Winne had retired and Calvert's disatisfaction with the succeeding manager made a personal inspection seem ever more necessary (G. Calvert 5/21/1627, Lahey 1982: 124). He was finally able to visit Ferryland in 1627. What he saw pleased him and Charles I gave him permission to take his (extended) family over in 1628, which he did, taking a retinue of about 40 with him (Cell 1969: 93, Charles I 1/19/1628, GB 10/9/1628).

The Calverts did not enjoy their stay at Ferryland which was more unpleasant than it might have been. They suffered the presence of Rev. Erasmus Stourton, an intolerant Protestant divine, and harrassment of the fishery by the French, which put Calvert at some expense to defend his countrymen's interests (G. Calvert 8/25/1628 a,b). Fundamentally though it was the severe winter and its

effect on health that Calvert found unacceptable. He told Charles:

> I haue fowned by too deare bought experience, which other men for their private interests always concealed from me that from the middest of October, to the middest of May there is a sadd face of wynter vpon all this land.... my howse hath beene a hospitall all this wynter, of 100. persons 50. sick at a tyme, myself being one and nine or ten of them dyed....I am determined to committ this place to fishermen that are able to encounter stormes and hard weather, and to remove myself with some 40 persons to your Maiesties dominion of Virginia... [G. Calvert 8/19/1629]

In the end the original Lord Baltimore did not live to settle in Maryland, the southern colony which his son Cecil founded (Fraser 1966). Charles called his former councillor back to England with some interesting advice:

> ...men of your condition and breeding are fitter for other imployments, then the framing of new plantations, Which commonly haue rugged & laborious beginnings, and require much greater meanes in Mannaging them than vsually the power of one priuate subiect can reach vnto... [Charles I 11/22/1629]

In fact the plantation was not a sole proprietorship, there are various indications that George Calvert had convinced others to invest in the project (Lahey 1982: 125,126). Its commercial failure for these investors could be seen as further vindication of the argument that fisheries-based proprietary plantations could not support both colonists and shareholders. It is noteworthy that Calvert's decision to withdraw from Ferryland coincides with a depression in the fishery (Stephens 1956: 92).

It has been argued that the Colony of Avalon was never intended as a commercial venture but rather as a personal family refuge (Cell 1969: 92, Barakat 1976). This is questionable for a number of reasons. It presumes that commercial motives and the desire for a refuge are mutually exclusive, it depends on the undocumented assertion that Calvert was already looking for a refuge in 1620, and it leaves in question his choice of a well-known fishing station as a site for plantation. Lounsbury's unsupported contention that Calvert "did not attempt to compete in the fishery" (1934: 48) is ill-considered. Of the 15 settlers in 1622 whose occupations were listed by Winne three were identified as "Boats-masters" and one as a "Fisherman" (8/17/1622). Given the usual crew of 5 men to a boat this suggests that 15 to 20 men were engaged in the fishery. The colony bought enough salt to cure 1860 quintals of fish in 1623 (Head 1976: 34). Besides this we have the testimony of several residents who agree that Calvert built "divers boates...and also built divers stages for making and dryeing of fish, and also sett forth and imployed the said quantitie of boats in taking of fish..." A resident remembered Calvert as employing 32 boats at one point (Treworgie et al. 1652: 240,249). Lahey argues persuasively that the fishery was in fact the economic basis of the colony at Ferryland (1982: 120,121). There is evidence not only that the Avalon colony was in the fish business but also that after a few

years it actually brought the Calverts an annual return of several thousand pounds (C. Calvert 12/1651, Cottington 4/7/1628).

Perhaps the Ferryland plantation was not per se the most serious financial drain on the Calverts but military protection of the whole coast against pirates and the French. It may have been to these costs that King Charles was alluding in his remarks on proprietorship. As Calvert recognized, the essential problem was raising revenue to pay for naval protection from which all fishing masters, planters or not, benefitted (G. Calvert 8/25/1628). This he never obtained permission to do. His successor at Ferryland, David Kirke, succeeded first in balancing the administrative books in this respect.

David Kirke's Proprietorship 1637-1651

Kirke did not take over Ferryland and its fishing business until April 1638. As late as 1637 the Calverts had been confirmed in their possession (GB 5/1637). Their "agent and deputy" at Ferryland then was Captain William Hill, who had inhabited the mansion house since 1634 (Pratt 3/11/1651). The size of the permanent population in this period is uncertain but it is clear that some men and women had been there since the 1620s. One of these remembered the Calverts as operating about six boats in this period, suggesting a

working male population of at least 30 (Treworgie et al. 8/1652). The population then rose, for Kirke had about 100 settlers sent out (Cell 1969: 116), although some of these may well have dispersed to Petty Harbour, St. John's, Torbay and Bay de Verde where Kirke had permission to take shore rooms (GB 3/11/1640).

Kirke, a proficient soldier who had wrested Quebec from the French in 1629 (Moir 1966), arrived armed with enough weaponry to convince Hill to retire across the harbour and a new charter granted to himself and several aristocratic associates (GB 11/13/1637). He occupied the Mansion House, taking possession as well of "some fewe old things" left by the Calverts: "six or seaven horses 3 chaires a Table board and an old Bedstead one ole French Boate of...Five Tuns" (Treworgie et al. 8/1652: 246,251).

Kirke's ruthless prosecution of the fish trade, managed in the ensuing decade and a half from Ferryland, is romanticized in Prowse's history (1895: 147ff). Yet the latter's admiration for David Kirke is reasonable enough: he made a resident fishery actually work economically. His means of doing so were resented by less powerful planters, from whom he collected rents for fishing rooms[1] and license

[1] In 1640 each planter paid an annual rent to Kirke of £ 3 6s 8d plus a "fatt hog" or an extra 20s "in lew thereof" (Cruse 1667).

fees for taverns[1] and by the West Country fishing masters who shipped their catch in foreign bottoms, for Kirke collected a five per cent tax on this cargo[2]. Even the resident fishing folk in his own employ were clearly wary of Kirke (Treworgie et al. 8/1652, Harrison cited in Matthews 1968: 142, Cell 1969: 122).

It is tempting to think of David Kirke as the prototypical Newfoundland fish merchant: a hard man in a bad season (because he wants to survive the bad season) and a hard man in a good season (because he needs capital to survive the next bad season). His success in operating a resident fishery at Ferryland and his attempt to force the transient fishery to bear part of the cost of keeping order along the English Shore gives him a significance that transcends local history. His operations had more effect on social and economic developments than those of the better remembered Baltimore. Lounsbury credits Kirke with initiating the substitution of wage labour for the old West Country practice of fishing on a cooperative share basis (1934: 89, cf. Younge 1658-1708: 58, Stephens 1956: 94). This adjustment in the mode of production would have made

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[1] A tavern license cost £ 15 in 1640 (Cruse 1667).

[2] Out of each 100 pounds of fish Kirke collected 50 pounds, of which 5 were credited to the crown (Cell 1969: 116).

evidence that Kirke was successful in convincing many of the best fishermen to become residents (Cull 1667 cited in Matthews 1968: 153).

The period during which Kirke dominated the Newfoundland fishery was unsettled by the outbreak of the English Civil War in 1642. The war made the West Country a battleground and was a disaster for the transient fishery (Cell 1969: 118). Possibly this gave Kirke's resident fishery a relative advantage, at least until his operations were disturbed by the war. New England cod prices peaked about 1645 (Vickers 1986) and a similar pattern could be expected at Newfoundland. At any rate the resident fishery grew at this time and permanent settlements were protected. This period should be well represented archaeologically, not least at Kirke's headquarters, Ferryland itself. We might expect to see some archaeological evidence for the reorganization of facilities shortly after his takeover in 1638.

Kirke's partners were Stuart favourites and he himself sympathized with Charles (Cell 1969: 114). He was suspected by Parliament of massing seamen for the Royalist cause. Within weeks of the King's trial and execution early in 1649 a stay is put on ships bound for Newfoundland from Plymouth, Dartmouth and Barnstaple until "the Navy of the Commonwealth as is in those ports shall first be furnished

with men" (GB 2/23/1649). That Kirke, an acquaintance of Archbishop Laud and an Anglican hostile to "schismaticks" (D. Kirke 10/2/1639), should face increasing official hostility in the first years of the Interregnum is not surprising. Official sympathy for the West Country interests with whom Kirke had been in dispute since setting up in Ferryland may have exacerbated this hostility (Plymouth 3/24/1646, Lounsbury 1934: 96, Matthews 1968: 98, 142), although the Parliamentary/Western Adventurer alliance was being superceded by increasing Parliamentary concern with national trading interests (Cell 1969: 119).

In 1651 the Commonwealth recalled Kirke to London for an accounting of his proprietorship (GB 4/8/1651a) and despite his acquiescence to the expropriation by Cromwell's son-in-law of the shares of his now deceased fellow investors he was imprisoned (Moir 1966: 406). A flurry of suits and countersuits between Cecil Calvert and Kirke ensued before the latter died about 1654[1].

Treworgie and the Interregnum 1651-1660

In 1651 the Council of State authorized John Treworgie and five others to take possession of "all the ordinance, Ammunition, Houses, Boates, Stages and other apportinance to

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1 Moir (1966) thinks he died in the original "Clink", Cell thinks he may have returned to Ferryland (1969: 123).

[David Kirke's] ffishing-deal & buing in Ferryland or any place in newfoundland" (GB 4/8/1651b). The following year Treworgie and others were commissioned to take depositions in and around Ferryland regarding the competing claims of the Kirkes and the Calverts to Ferryland (Scisco 1928). The commissioners managed to dispossess the Kirkes of their fish and salt (GB 1653) but this broad interpretation of their authority was successfully challenged by James Kirke, David's brother (Sikes and Pyle 4/24/1654).

The Council of State gave Treworgie considerable administrative authority in 1653 (GB 6/3/1653) and he remained at Ferryland as a kind of governor until the restoration in 1660 (Treworgie c.1659, Cell 1966). He was a New England-based merchant and it is noteworthy that this period marks the beginning of the extensive Yankee trade at Newfoundland (Lounsbury 1930, 1934: 109, 189, Bailyn 1964: 129) for trade in this period was very dependent on personal and kin relationships (cf. Bailyn 1953: 382). The Interregnum saw continued difficulties for the English fish trade as a whole, especially after serious losses of shipping during the war with Spain from 1656-1659 (Lounsbury 1934: 108, 121). Ferryland and the other permanent settlements in this period nevertheless enjoy continued protection (Cell 1969: 120,124), a rapid development of the bye-boat fishery (Lounsbury 1934: 110) and even some support

for this planter-dominated fishery from factions in London, Exeter and Bideford (Stephens 1956: 95). Again, this period should be well represented archaeologically.

The Kirkes 1660-1708

The Restoration period was difficult for Newfoundland in general and Ferryland in particular. There was a serious decline in the fish trade (Lounsbury 1934: 111,119). The settlements suffered at the hands of the Dutch, with whom England was at war. For the resident population these problems were compounded by the enactment of severe restrictions on settlement. Although these were generally not enforced and the British Government reconsidered its attitude after the compassionate enquiries of naval officers like Sir John Berry (7/24/1675), until about 1680 the tenure of any resident of the Island was precarious.

Cecil Calvert and David Kirke's survivors used Charles II's ascension as the occasion to press competing claims for their own restorations -- to the proprietorship of Ferryland (Lounsbury 1934: 105). The case was officially decided in the Calverts favour (GB 2/28/1661) but the Kirkes stayed put, a strategy which eventually wore out the Calverts' agents. This marked the end of proprietary plantations in Newfoundland, although Lady Kirke and several of her sons remained in control of premises at and near

Ferryland (Berry 9/12/1675). As late as 1708 the property at the Pool, Ferryland's inner harbour, remained in the possession of David Kirke's daughter-in-law Mary Benger (Healle 8/14/1707, Taverner et al. 3/5/1708).

Ferryland escaped attack during the Dutch raids of 1665 in which St. John's was taken by De Ruyter but was not so lucky in 1673 when four Dutch ships under Nicholas Boes sacked the settlement (Prowse 1895: 183, Glerum-Laurentius 1960: 64, 80). Dudley Lovelace, a British prisoner on one of the attacking vessels reported "the Enimie plundred, Ruin'd, fir'd & destroy'd the Commodities, Cattle, Household goods, & other Stores " belonging to the Kirkes and other planters, besides burning 30 fishing boats and taking "as much fish as the shipps could carry away" as well as 24 hogs and 4 bullocks (1673). Lovelace did not mention the burning of houses or outbuildings at Ferryland, though he did mention such destruction "3 miles distant", that is at Caplin Cove (now Calvert).

Ferryland was attacked again, this time by the French, in 1696 (Prowse 1895: 216, Beaudoin 1696: 41). A contemporary reported "There was not a living soul left, yet not at Ferryland which was always looked upon (as I am told) as... the pleasantest place in the whole Island" (Gibson 6/28/1697). The inhabitants became refugees,

spending the ensuing winter together at Appledore Devon, near Bideford. The Board of Trade gave official support for re-establishment at Ferryland (GB 1/13/1697) and continuity of land tenure suggests that the settlement was not fundamentally disrupted, though it may have been re-built.

This temporary abandonment can conveniently conclude the chronology of seventeenth century settlement at Ferryland. This chapter has only touched on some of the social and economic issues with which historical archaeology can hope to engage (Carson 1978). In the study at hand I propose to describe and analyze one class of artifact (ceramic) in several chronological components (1630/40s, 1660/70s) of the small structure so far excavated at Ferryland. The great archaeological challenge is to bridge the theoretical gap between a mute and incoherent array of artifacts and outstanding questions about the lives of the people whose debris has been uncovered. It would be useful, therefore, to outline what is known of the economy, demography, social structure and material life of seventeenth century Ferryland, for it is with these realms of history that it is, I think, most worth trying to engage archaeology.

CHAPTER 3

ECONOMIC AND SOCIAL LIFE ON THE ENGLISH SHORE

Methodological Introduction.

Some of the events and persons discussed above have become characters in Newfoundland or American mythology. Archaeological research at the scene once played upon by these mythically significant characters will be implicitly justified for some simply by association (Harper 1960, Barakat 1976). In general, special value will almost inevitably be assigned by funding agencies to the recovery of materials associated with documented individuals. It can reasonably be asked, however, how much "a piece of the true cross" is worth (Hindle 1978).

The doubt suggested by this cynical question does not relate to the evident value of personal associations in the public interpretation of historic sites. It does, however, suggest that this worth is limited in archaeological terms, if historical archaeology is to be more than "handmaiden to History" (Noël Hume 1964). There are a number of ways historical archaeologists can attempt to come to grips with larger questions, some leaning more to anthropological hypotheses and testing, some to historical problems and explanation (South 1977, Walker 1972). The debate about these alternative nomothetic and ideographic models is a

wider one, concerning archaeology as a whole (Trigger 1978) if not the general relationship between anthropology and history (Plakans 1984: 241ff). Within historical archaeology, at least at present, it seems prudent to accept "paradigmatic pluralism" (Deetz 1983).

The theoretical model I shall pursue is rooted in two perceptions about the relationship between historical archaeology and history. The first is that the results of archaeological research are more likely to articulate constructively with the social and economic interests of the "new history" than with traditional political history (Carson 1978). The second is that historical archaeology can illuminate the lives of the illiterate and the ignored, a potential which may be compared to one Trigger ascribes to ethnohistory (1985).

Such an archaeological approach, in the Newfoundland context, must be to a history that has not been written. The late Dr. Matthews argued that the history of Newfoundland has normally been organized around intermittant political "fenceposts" while significant socio-economic evolution between these scattered events has been systematically underestimated (1971a, 1971b: 34ff). This is particularly true for the early modern period. Hence the assessments offered here of economic, social and demo-

graphic structure and structural change are tentative. They are based not on extensive documentary research but on a survey of published documents, on a limited sampling of the unpublished documents in the Maritime History Group Archive and on the sparse secondary literature.

Economy

The economic basis of the English occupation of Ferryland, seasonal or permanent, in the seventeenth century was the cod fishery. This was true even of Calvert's plantation during the 1620s. Within this general framework several observations can be made.

First, from about mid-century there was an adjustment in the mode of production with the rise of a bye-boat fishery. The bye-boatmen owned small inshore fishing boats, employed crews on a wage basis and sold their catches, often to the large sack ships that arrived late each season to take on cargoes of dried cod (Stephens 1956: 94). Some bye-boatmen were resident in Newfoundland. Many depended, like most of their crews, on annual passages out and home in the West of England fishing ships of 50 to 100 tons which spent the summers in Newfoundland harbours while their crews fished the same waters in similar small inshore fishing boats (Cell 1969: 130, Matthews 1968: 165). The seasonal adventurers aboard these

fishing ships shared the profit or loss on the voyage with the owners and fishing masters (Younge 1658-1708: 58). As Stephens observes, the new bye-boat fishery was "a more highly complex capitalistic system" (1956: 99).

The development of the bye-boat system not only made investing in the fishery more feasible for an individual or family of small means but also facilitated permanent settlement not attached to a proprietary colony. West Country opposition to a resident bye-boat fishery was the expression of a class interest in keeping small entrepreneurs out of a profitable trade. As the Secretary of the Board of Trade observed impatiently in 1675, these objections amounted to an attempt "to exclude the poor from being sharers in anything" (GB 12/4/1675). Kirke, who encouraged the bye-boat fishery, had a more modern system of taking profits: he sold the smaller bye-boatmen salt, protection and alcohol.

Second, our understanding of the economies of small settlements like Ferryland must be modified by the observation that fishing was not the sole occupation of planters, ie. permanent residents[1]. While the fur trade was only significant to the north, lumber-making, boat-building and the manufacture of oars were normal winter trades

[1] But see below p. 57 for a shift in meaning.

all along the English Shore (Younge 1658-1708: 60, Talbot 9/15/1679). When the French seized Ferryland in 1692 they found (and ate) 12 horses (Beaudoin 1692: 41). It seems likely that an important normal function of these animals, which had been kept at Ferryland as early as 1624 (W. Alexander 1624: 187), would have been woods work.

Looking at the planter economy in subsistence rather than in market terms it is clear, again, that the fishery was not the sole support of the population. Younge mentions winter hunting for beaver, ducks, geese, wild pigeons, partridge and hares (1658-1708: 60). The availability of "deer", ie. Woodland Caribou Rangifer tarandus, impressed early colonists (Guy 5/16/1611, Hoskins 8/18/1622). Only the gentry could hunt such animals legally in England (C.A. Wilson 1984: 75,85). With other game, caribou were still plentiful enough to be part of the diet at the end of the century:

> The chiefest sustenance that the Planters receive from the land is deer, bare and beaver; they have otter and seal which they and none but they could eat, but such people such stomachs..." (Graydon 3/13/1701).

Planters could also plant, of course. Some scholars have taken a dim view of the agricultural potential of Newfoundland (Matthews 1968, 1974; Cell 1982b). Yet a variety of food crops and livestock have been raised since the Island was settled by Europeans (Head 1976: 45).

Because they are limited, agricultural possibilities are not, therefore, insignificant (Newfoundland 1955). It is clear from documentary evidence that gardens and livestock were common in seventeenth century Newfoundland. The 523 men women and children resident in Newfoundland in 1677 are recorded as tending 114 gardens and keeping 131 sheep, 480 cattle and 845 swine (Poole 1677 cited in Rogers 1911: 83). This suggests that almost every planter family had a garden and, on the average, three or four head of cattle and a half dozen pigs.

The first colonists were immediately successful in growing vegetables, notably the Brassicas, cabbage and turnip (Crout 4/13/1613, Winne 8/17/1622). Later in the century the transient fishermen complained about "the encroachment of...gardens on land fit for drying fish" (GB 1668) and planters were forbidden to keep their "orchards or gardens" close to the shore (GB 2/26/1680). The fact that part of Kirke's standard rent for a fishing room was a "fatt hogg" (Cruse 1667) suggests strongly that most planters kept swine, which can be fed cheaply on fish offal. Cattle are mentioned in accounts of Ferryland from 1625, when George Calvert arranged to bring stock in, to the Replies to Heads of Enquiry of the 1670s which indicate a community herd then of 30 head (G. Calvert 3/15/1625, Berry 9/12/1675). Cattle and goats would probably have

been kept primarily for dairy purposes, as elsewhere in early modern times (C.A. Wilson 1984: 150). Fowl were kept on board ships and several were presented to Calvert's colonists by friendly fishing masters (Winne 8/26/1621).

The supposed impossibility of ripening grain in Newfoundland[1] or of raising adequate winter forage have been suggested as factors retarding settlement (Cell 1969: 70, Matthews 1974: 3) but there are reasons to question both lines of argument. It is true that the Cupids colony lost most of its cattle in the harsh winter of 1613 but this was then recognized as "a great over sight" resulting from "sending over so many before such tyme as ther might haue been better provition made for them" (Crout 4/13/1613). Calvert's manager at Ferryland was careful to avoid this problem, explicitly delaying any request for cattle in 1621 "because I cannot prouide fodder for them so soon" (Winne 8/26/1621). By 1622 Ferryland had "a Medow of about three Acres...with many cocks of good hay" and "Pasture land... to serue at least three hundred heads of Cattell" (Winne

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[1] Wheat, barley and especially oats were grown successfully in Newfoundland in the nineteenth century. The electoral district of Ferryland for example produced 556 bu. of grain and 913 tons of hay in 1845 (Canada 1876). There is, on the other hand, evidence that the climate was significantly worse in the early modern period (Lamb 1982: 200 230). Agronomists today suggest that it is not growing grain in Newfoundland which is problematic, but drying it (D. Kelland, Provincial Dept. of Agriculture, personal communication 1986).

8/17/1622). In fact the local forage was not as nutritious as European clovers and grasses but this was not a climatic problem, it was a reflection of the fact that North American meadow species had not co-evolved with pastoralism. The efficiency of stock-raising in early modern New England was thus affected as well. It is likely the problem resolved itself on Newfoundland pastures as it did in New England where within a few decades the European species displaced their American counterparts (Cronon 1983: 142, cf. Cooper 1981).

As for grain, it was considerably less necessary in Newfoundland than in Europe. It was not the staff of life, "daily food [came] out of the sea" (Berry 7/24/1675). The demand for grain was a cultural one and although the first settlers expected to go on consuming wheaten bread and barley beer (GB 2/25/1629, 4/9/1629) nevertheless in the long run consumption of these foods could be reduced without reducing protein consumption and endangering health (pace Head 1976: 244). The humble and easily grown Brassicas would have been, on the other hand, well worth raising for different reasons: they were less transportable than grain yet their vitamin C content was a valuable dietary supplement. As Crout noted "they are an exceeding good for the scarby [scurvy]" (4/13/1613).

Laymen and, eventually, medical men recognized that spruce or "Cartiers tree" had anti-scorbutic properties as well (Colston 1613, Younge 1658-1708: 59). Substitution of spruce for barley beer would have been an entirely advantageous adaptation and the rise in demand for molasses, an ingredient of the former, in the later seventeenth century may reflect this substitution as well as a general shift in the provisioning trade to New England.

Sider (1980) suggests that commercial agriculture in Newfoundland was held back by deliberate government policy but this is not persuasive. Besides depending on a misleading (Head 1976: 244), if quite traditional, overestimate of the period in which settlement and associated activities were discouraged, the whole argument is superfluous. There was little economic advantage in Newfoundland to agriculture at the market scale. As various visitors observed, the income which planters could expect from the fishery was "far more than they could make by labouring the ground"; wages were "so excessive that clearing ground and sowing corn would not be profitable" (Gibson 6/28/1697, Talbot 9/15/1679). The relative profitabilities of commercial fishing and commercial agriculture at Newfoundland in a situation of labour scarcity are a sufficient explanation of why the latter did not become established in the early modern period.

Given that fishermen, transient or resident, were fully committed to the market economy it should not be surprising that much of their food was supplied by the same market. Consumption was determined more by availability on the circum-Atlantic market than by climatic forces. With the important exception of the potato, introduced about 1750, the Newfoundland diet changed only slightly over the centuries until very recently (Head 1976: 252, 202). The seventeenth century diet is summarized in Tables 2 and 3.

There are several ways in which economic archaeology could illuminate the subsistence of early Newfoundland fishing communities. This would involve not only the industrial archaeology of the fishery (Faulkner 1985) but a close examination of evidence for other resource industries like lumber-making and such subsistence activities as gardening and dairying. In this connection botanical and faunal material could be significant (cf. Reitz and Scarry 1985). More relevant in the present context, the analysis of ceramic vessel forms might suggest the extent to which dairying activities were carried on.

Demography

Arguably, the population structure of seventeenth century Newfoundland is a will o' the wisp, in the sense that the population was a sometimes thing. Matthews (1974)

Table 2. Provisions Imported (or Proposed for Import) into Seventeenth Century Newfoundland

PRODUCT	1611	(1622)	(1626)	c.1660	c.1680
Bread	E	E	*	NE	F,E,NE
Flour	E		*	NE	C,F,E,NE
Oatmeal	E	*	*		
Wheat	E	I			
Peas	E	*	*	NE	E,NE
Rye	E				
Butter	E	E,I	*	NE	I
Cheese	E	*	*		I
Oil			*		C
Salt Beef	E,I	E,I	*	NE	C,I,E,NE
Salt pork	E	*,I	*	NE	F,C,I,E,NE
Bacon	E		*		
Beer	E	E	*		
Barley	E		*		E
Hops			*		E
Cider		*			
Wine			C		F,C,E
Spirits		*	*		WI,F,E,NE
Sugar			*	NE	WI,C,E,NE
Molasses				NE	WI,NE
Vinegar		*	*		
Mustard Seed	*		*		
Tobacco				NE	NE

Origin of Provisions:

C = Canary Is. etc. E = England * = Presumably England
F = France I = Ireland NE = New England WI = West Indies

Notes: The mustard seed was imported in quantities that suggest use for growing greens.

John Guy also suggests rice, mead, honey, currants and various spices.

Sources: 1611 Cupids Inventory (Anon 8/26/1611)
1622 Whitbourne's suggestions (1622, 12/24/1622)
1626 John Guy's suggestions (Poyntz, 1626)
1660 John Downing (cited in Rogers 1911: 91)
1680 Head 1976: 101, Talbot 9/15/1679, Story 9/1/1681, Wheeler 10/27/1684.

Table 3. Agricultural Produce in Seventeenth Century Newfoundland

PRODUCT	YEAR
Hay	1622
Wheat	1622
Barley	1622
Oats	1622
Rye	1622
Peas	1622
Beans	1622
Kale/Cabbage	1613, 1622
Turnips	1613, 1622
Lettuce	1622
Radish	1622
Carrots	1622
Poultry	1621
Goats	1613, 1622
Swine	1613, 1622, 1638, 1673, 1677
Cattle	1613, 1624, 1673, 1675, 1677
Sheep	1677

Sources:

1612	(Cupids)	Crout 4/10/1613
1622	(Ferryland)	Winne 8/17/1622
1624	(Ferryland)	Alexander 1624
1638	(Ferryland)	Cruse 1667
1673	(Ferryland)	Lovelace 1673
1675	(Ferryland)	Berry 1675
1677	(Nfld.)	Poole cited in Rogers 1911: 83

took the provocative position that the "real" population was close to zero . He argued that of those overwintering in a particular year many were servants who usually returned to England after a season or two. In 1675 for example, 1263 of the 1580 possible overwinterers fell into this category, leaving a "real" population of only 385 planters, wives and children. Furthermore there was a high rate of turnover from year to year among the planters themselves and many of them eventually retired to England. Thus Newfoundland was "little more than a place of work -- an early example of commuter life, and an integral part of the West of England" (1974: 6).

This argument is a healthy corrective to interpretations, like Prowse's (1895), which tend to project later settlement and subsistence patterns back into early modern times and which, therefore, treat the resident/transient dichotomy as a struggle between two distinct groups of people. Matthews' earlier research established, among other things, that there was no sharp division between the migratory and the sedentary fishery (1968: 181). Planters and transient fishermen came from the same localities, they were interrelated, there was much mobility between groups and they often depended upon each other for transportation or merchantable product (1968: 162ff, 1971a: 39).

The repeated and detailed censuses of the latter part of the century make it inviting to look closely at the demographics of this period. It must be remembered however that Dutch agression and falling fish prices coincide about this time with the one period of actual official hostility to settlement (1663-1677). So although this period is easy to study it is not representative of the century. The end results of early modern colonization were, certainly, so limited that it is reasonable to view Newfoundland as "one of the nineteenth-century countries of European settlement" (D. Alexander 1980: 19) but this does not mean that there were no "real" residents of seventeenth century Newfoundland or that because they were few in number their lives therefore are not worth trying to understand.

Matthews' (1974) account of seventeenth century settlement demography is in some ways tendentious. While much of Newfoundland's population did consist of transient male servants this was to true of populations elsewhere, though to a less marked degree (Laslett 1965: 12, Kussmaul 1981: 3ff). It is true that Newfoundland communities were very small, but most of the population of England itself still lived in very small communities (Laslett 1965: 54). Nor was English population growing through most of this period. Recent research suggests a stagnation between about 1640 and 1709 (Wrigley and Schofield 1981: 162).

Finally, working families in the early modern world were often geographically mobile; such mobilility is not peculiar to Newfoundland. Matthews' critique is valuable from the archaeological point of view because it insists that the settlement system of early modern Newfoundland was trans-Atlantic in scope and that residents were culturally indistinguishable from transients. It is possible to accept this without reducing our interest in the phenomenon of colonization and our curiousity about a socio-economic system with two distinct, if inter-related, residence patterns within one settlement system.

Developments in other colonies provide more appropriate comparisons for the early demography of Newfoundland and many of its features can be accomodated within the model Potter (1984) proposes for colonial British America:

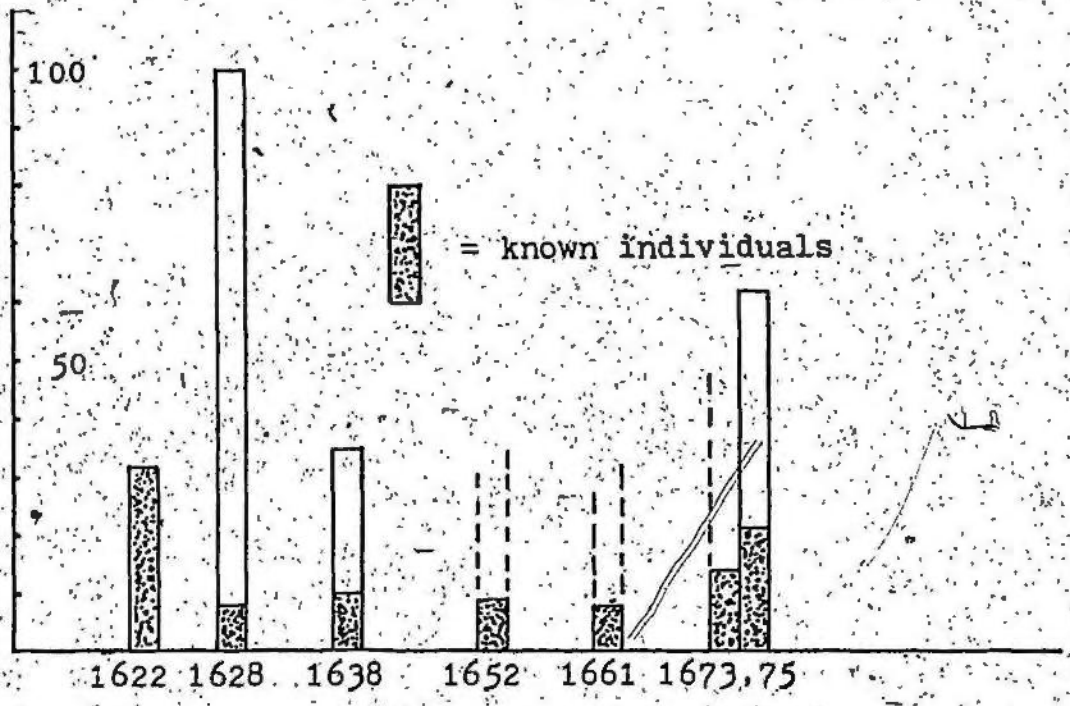
1. "Gate mortality" was high. Winter mortality rates of 12% at Cupids in 1613 or 10% at Ferryland in 1628 (Cell 1969: 69,95) were not abnormal among early colonists, although rates in contemporary Virginia were worse (Earle 1979, Noël Hume 1982: 195, Lahey 1982: 122, Cell 1982a: 6).

2. In northern colonies these initial difficulties were overcome rapidly. There is no evidence for such high mortality rates in Newfoundland after 1628. The mortality

rate at Ferryland in the winter of 1638/39 was 1% (D. Kirke 10/2/1639). This permitted population to grow as long as net immigration rates were positive, ie. until about 1660 (Matthews 1968: 155).

3. Populations with high out-migration did not increase rapidly. The Yankee trade at Newfoundland after 1660 favoured an outflow of settlement-minded males: "the New England men carry away many of the fishermen and seamen, who marry in New England and make it their home" (Wheeler 10/27/1684, cf. Story 9/1/1681, Talbot 9/15/1679). As the historical geographer Rogers put it, "Newfoundland became the half-open door through which labourers emigrated to America" (1911: 49). It is therefore not surprising that population levels in Newfoundland stagnated. This seems to have been the case at Ferryland (Figure 3).

4. Natural increase was the most important factor in supporting population levels. This was probably not true of Newfoundland until net immigration dropped off. The censuses of the 1670s and 80s indicate that at this period there was no net inflow of immigrants (Matthews 1974). It is arguable that in terms of resource exploitation the English shore had become congested (Lounsbury 1934: 164). Yet the 6 married planters of Ferryland, for example, had 14 children resident with them in 1675.



Notes: 1638 estimate assumes that one quarter of the 100 persons brought out by Kirke overwintered at Ferryland.

1675 estimate assumes that one quarter of the servant population overwintered.

Sources:
1622 Winne 8/17/1622.
1628 Cell 1969: 93, GB 10/9/1628, G. Calvert 8/18/1629.
1638 Cell 1969: 116, GB 3/11/1640
1652 Trewargie et al. 8/1652, Hill 9/12/1661, Cruse 1667.
1661 Lewis Kirke 1660, Lady Kirke 1660, Hill 9/12/1661, Wrixon et al. 9/19/1661.
1673 Lovelace 1673.
1675 Berry 9/12/1675.

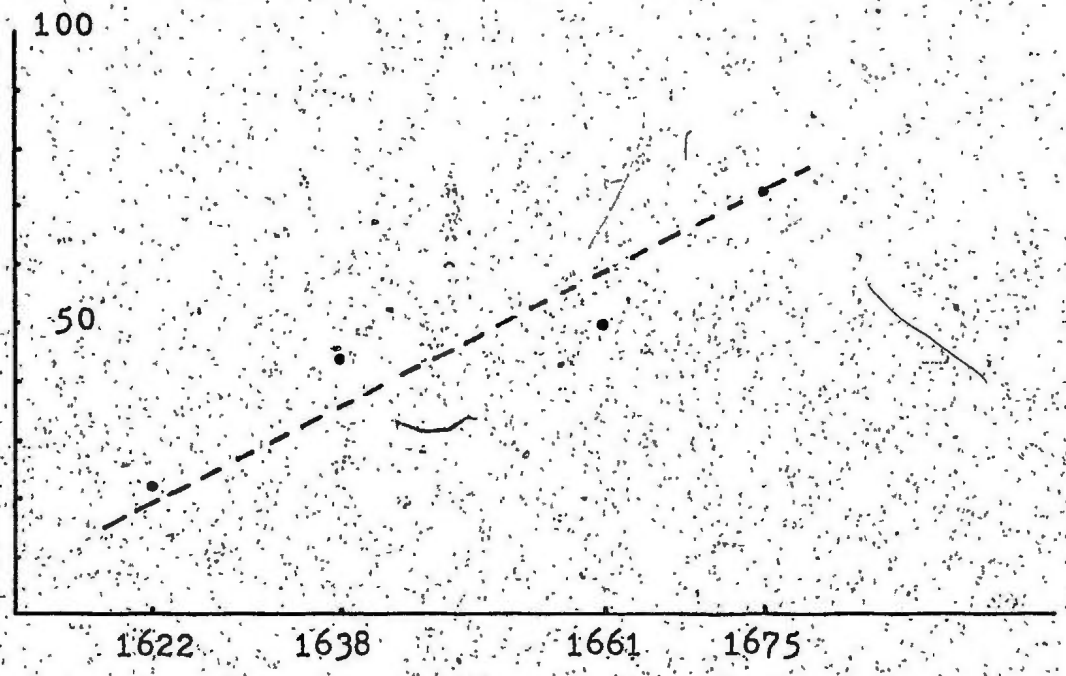
Figure 3. Overwintering Population at Ferryland 1622-1675

5. Populations showed a distinct male surplus resulting from extensive employment of male servants. The sexual imbalance was acute in Newfoundland and especially so in the summer months. There were 14 women and girls in Ferryland in 1675 out of a total summer population of 153, although among the 31 long-term residents the sexes were roughly balanced (Berry 9/12/1675). Servants, who were mostly male, overwintered on a year to year basis, their numbers varing with political and economic conditions, increasing in times of war and when the fishery had been poor (Matthews 1968: 173) and thus affecting the sexual balance of the population throughout the year. By the 1680s this situation was beginning to change because of increased Irish immigration. Captain Story reported that ships inbound from Irish ports brought over "many women passengers whom they sell for servants". They soon married, he added "among the fishermen that live with the planters..." (9/1/1681).

It is clear that women were, as Winne observed, "necessary heere for many respects" (8/28/1621) and not merely because they could, as he hoped, brew and bake. It was the presence of women that made permanent residence possible, in several senses. As one naval officer observed of the bye-boat men "soe long as there comes noe women they are not fixed" (Wheeler cited in Matthews 1968: 174).

Obviously the presence of women permitted populations to reproduce themselves. And, finally, it is likely that women increased the limited self-sufficiency of planter establishments by tending gardens and animals, which need care at the height of the fishing season. It is worth noting too that several widows managed fishing operations, among them Lady Kirke whose business was still the largest at Ferryland in 1675 (Berry 9/12/1675). There is some evidence that the percentage of planter households with women present rose as the century unfolded (Figure 4).

The available census and similar information for Ferryland itself suggest that there was, despite the transience of the summer population, a distinct continuity of residence among most of the planter families (Tables 4 and 5). These sources suggest that planter household businesses generally consisted of a nuclear family. Lady Kirke and two of her three sons, George and David operated three distinct establishments. Considering the household structure of Ferryland over the whole century it is fair to say that households became smaller. This is in part a reflection of political and economic transitions, of course. Certainly we have no evidence for households in the latter part of the century to match the retinue of 40 people, extended family and retainers, who were attached to George Calvert, Lord Baltimore (G. Calvert 8/18/1629).



Note: Percentage for 1622 is of females in total population.

Sources: See Figure 3, p. 48.

Figure 4. Percentage of Known Planter Households with Women, at Ferryland, selected dates, with Trend Line

Table 4. Continuity of Residence at Ferryland
Known Residents of Ferryland in 1638
with Residence c. 1628 - 1673

NAME	AGE in 1638	RESIDENT ALSO IN	RESIDENCE in 1652
Philip Davies	33	1628,1652,1652,1673	Ferryland
Charles Hill		1636-39,1661	Ferryland?
Sydney Hill		c.1630-38	
Sir David Kirke	41	1639-1651	London
Lady Kirke		1639-1676	Ferryland
George Lees		(1673)	
Ann Love	36	1661,(1673)	Ferryland
William Poole	44		Renews
John Slaughter			Caplin Bay
John Stephens		1635	Renews
Amy Taylor	37	c.1628,1661?	Fermeuse
Sydney Taylor		c.1630-38	
William Wrixon		1661	

Notes: There is no continuity with names from 1622.

Philip Davies is a woman.

Amy Wrixon of 1661 is understood to be Amy Taylor of 1652.

Names flagged with "(1673)" match surnames.

Source: See Figure 2.

Table 5. Continuity of Residence Near Ferryland, 1670s
Known Residents of Ferryland and Caplin Cove

NAME	1673	1675	1676
Lady Kirke	x	x	x
Lady Hopkins	x	x	x
George Kirke, Esq.	x	xxx	x
Mr. David Kirke	x	xxx	x
Phillip Kirke	x	x	
Will Toms/Thomas	x	x	
Eze. Dibble/Deble	x	x	c
John Kent	x		
Philip Davis	x		
Wm. Robins/Robert	x	xxx	xxx
Christopher Pollard	x	ccc	ccc
Will Addams	x		
John Heard/Yard/Gord	x	xxx	ccc
Rob. Love	x		
Jer. Kirke			c
Will Pollard	c		
Sam Adams		xxx	ccc
Henry Dench		xx	ccc
Wm. Jones			x
Wm. Earl			xx
Rich Lee			xx
The Doderidge [sic]			xxx

Notes: x = resident xx = with wife
xxx = with children c = Caplin Cove

Source for 1673 lists only heads of household.

Sources: 1673 Lovelace 1673
1675 Berry 9/12/1675
1676 PRO CO 1/38

These demographic questions are important for archaeological interpretation and, conversely, represent an area in which archaeologists might contribute effectively to a comprehensive historical understanding of the many decades lacking census information for historical communities (Deetz 1982, Beaudry 1984). In the case of seventeenth century Newfoundland in general and Ferryland in particular the demographic situation is made very complex by the transience of the large summer population. The same homelot used by the nuclear family planter household and some servants during the winter must often have been host to a larger number of seasonal employees each summer. Any archaeological data pertaining to seasonality of servant residence or simply to the population levels between 1630 and 1675 will be extremely valuable, because the documentary record is silent on these crucial questions.

The possible relationships among the social, material and behavioural elements of households are varied, complex and not easy to define (Wilk and Rathje 1982) but for the purposes of archaeological interpretation the concept of the household is, arguably, a crucial mediating link between excavated artifacts and sociological interpretation (Deetz 1982). Household structure in the later seventeenth century may, for example, be reflected in patterns of ceramic use, which seem to take on an expressive function

related to concerns about individualism and family identity (Deetz 1977: 57).

Social Structure

The mobility and inter-relatedness among seasonal West Country venturers and planters resident at Newfoundland suggests that we that we cannot accept Rogers' (1911) notion that planters, servants and seasonal fishermen constituted three social classes (Matthews 1968: 167). Nor is it likely that one analysis will serve for the evolving economic circumstances of the century. Laslett has used Gregory King's economic categories (1690) as a basis, with other evidence, for a model of the class structure of Stuart England (1965: 32ff). This version of King's analysis can be applied to Newfoundland, although not all categories were represented. There were no Dukes and no paupers, for basically the same reason: a lack of institutional support. All three major classes are represented in seventeenth- century Newfoundland (Table 6), although there are indications that the class structure changes towards the end of the century.

1. The Gentry would include Captains, Reverends, several Knights, their Ladies and even a Baron. This can be thought of as the class of those with political power: they own land or at least an office (civil, ecclesiastical or

Table 6. Model of Class Structure of Stuart Newfoundland

After King (1690) and Laslett (1965)

CLASS	GRADE	HONORIFIC	STATUS	OCCUPATION
Gentry	Baron	"Lord" (Wife: "Lady")	Noble	Political
	Knight	"Sir"	Noble	Political Military Merchant
	Esquire	"Esq.","Mr." "Captain"	Gentle	Merchant Manager Surgeon Clergyman Military
..... MAJOR CLASS DIVISION (Laslett).....				
Middle Owner Class	Freeholder (Planter)	"Goodman","Worthy" (Wife: "Goodwife", "Goody", "Lady")		Boat
	Craftsman			Crafts (Boatsmasters?)
..... MAJOR CLASS DIVISION (King).....				
Servants	Common Seamen			Fishery Crew
	Servants			Unskilled
	Wage Labourers			Unskilled

Note: Regarding honorifics Laslett observes "The common tendency for a person to be called by a rather higher title than the one to which he was strictly entitled was already present" (1965: 38).

military). When referred to in documents they are usually accorded an honorific like "Lady", "Mr." or "Esq.".

2. A Middle Class of craftsmen and husbandmen are well represented among the initial colonists of Cupids and Ferryland. These are people King would describe as "increasing the wealth of the kingdom", ie. those who control the means of production with which they earn a living. Hence planters in the later sense of the term belong, in general, to this class, for "planter" came to mean not simply any resident but an employer possessing a plantation or fishing room (Matthews 1971a: 22). The status of Calvert's "Boatsmasters" is unclear and would have depended, on this interpretation, on their ownership of some of the tools of their trade.

3. The Servants at Newfoundland consisted of fishermen and other servants and labourers. They would be categorized by King with paupers and vagrants and described, paradoxically, as "decreasing the wealth of the kingdom"[1]. We could think of them as those using means of production owned by others. They are either indentured servants or wage-labourers. Many of the settlers sent out by Calvert were servants in this sense. Servants tended to be young,

[1] What he means by this, in his own pre-marxist way, is that it cost more to keep them alive than they earned, at least by his calculations.

or rather youths tended to be servants in early modern times: about 60% of the English population between 15 and 24 were in service. The institution of service permitted early modern families to adjust their work forces and thereby ensure efficiency as individual production units (Kussmaul 1981: 3). The young men who chose to join a planter household for the winter were likely indentured servants (Lounsbury 1934: 151).

The status of such servants and wage labourers was low. Calvert probably employed parish orphans (Rogers 1911: 61) and later in the century planters obtained servants from West Country poor authorities (Matthews 1968: 121). Whitbourne suggested that unskilled servants "maye be shipt from Ireland" (12/24/1622) and this practice actually developed later in the century (Story 9/1/1681). We must put modern ideology aside here and emphasize that wage-labourers did not necessarily enjoy a higher status than indentured servants. Dependence on wages was seen as a loss of control over one's own labour and therefore as a surrender of independence (Hill 1964: 63, 1974). The bye-boat crewman paid a wage by a planter or a transient boat owner had not achieved a higher status than his West Country brother crewing on a fishing ship on a share basis.

This three-class structure existed at Ferryland during proprietorships of Lord Baltimore and Sir David Kirke. It is unclear when the settlement disintegrated into a congeries of individual family enterprises in which the Kirkes would be merely primus inter pares among the planters. The form seems to have outlasted the substance and even after the early 1660s, by which time this political disintegration had definitely occurred, the Kirkes and the political refugee Lady Hopkins are still accorded their honorifics by Captain Lovelace (1673).

There is some evidence that the gentry/non-gentry distinction was becoming, in Newfoundland, primarily a distinction between larger and smaller planters. David (Jr.) and Phillip Kirke are not accorded honorifics by Berry in 1675. The persons who qualified as gentry to Berry[1] employed an average of 14 persons each. The remaining adult planters employed an average 5 persons each[2] (Table 7). Given the lack of political power of even the larger planters at this time it seems fair to interpret the class structure directly in economic terms. Matthews has noted that the biggest of the big planters, including Lady Kirke, were the equals of any West Country fishing ship

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[1] Lady Kirke, Lady Hopkins, George Kirke Esq. and his wife.

[2] Among them Phillip and David Kirke and the latter's wife employed an average of 8 persons each.

Table 7. John Berry's Census of Ferryland, 1675
with Calculated Totals

PLANTERS NAMES	CHILDREN Ma.	Fem.	Men	Boats	Stages	[Vats]
Geo. Kerke esq. & wife	3	1	16	4	1	1
David Kerke & wife						
Phillip Kerke	1		25	5	1	1
Lady Kerke			25	5	1	1
Lady Hopkins			15	3	1	1
Wm. Robert & wife	4		20	4	2	2
John Yard & wife		3	6	1	1	
Ezekiele Deble			10	2	1	
Wm. Thomas						
Sam Adams & wife		2	5	1	1	
Henry Dench & wife						
TOTALS 17 Planters	8	6	122	25	9	6

and 30 head of cattle

Source: John Berry 9/12/1675

owner and observed that few of these big planters were married, indicating perhaps they were less committed to permanent residence than the smaller planters (1968: 176). Another striking fact about the big planters is that they were squeezed out economically after 1684. A series of bad seasons left even them unable to import their own provisions or to pay their debts to suppliers in cash. Most had fallen heavily into debt by this time and had come under the control of West Country traders willing to extend credit on the assurance that they would be paid in fish during the next year's season (Matthews 1968: 176,177).

The class structure in Newfoundland continued to collapse under the weight of economic adversity in the sense that with the passage of time there seems to be less and less distinction between servants and planters, who by the end of the century are almost all small operators with only a few boats. Even in 1665 the poverty of the inhabitants of St. John's so impressed the raiding Dutch Captains that they decided for this reason to drop their plan to burn the town (Brandt 1691: 371 cited in Glerum-Laurentius 1960: 66). Berry found the planters "too poor to remove" in 1675 because "they must be put on the Parish wherever they come" (7/24/1675). In the context of the current low returns from the fishery the capital investment of the average planter was worth little, especially in the light

of the relatively high wages that crewmen could still command: £ 20 a season compared to £ 3 in England. Economic circumstances were such that the endebted planters had no more freedom in their labour than the men they employed. By the end of the century it seemed to Captain Norris that "the planters in general are a kind of servants to the merchant-men" (4/17/1698). From his point of view the class structure had collapsed; the gentry were gone and the remaining planters were hard to distinguish from their servants. Naval officers apart, there was only one class of persons at Newfoundland: the class structure had been homogenized by adversity (Figure 5).

The archaeological implications of this devolution are uncertain. It is during the seventeenth century that middle class families begin to invest in the tools of domesticity, ie. comfortable furniture, utensils for sociable dining and equipment for entertainment (Shammas 1980: 8), while material possessions such as ceramics begin to take on the character of social signifiers (Deetz 1973: 28). The obvious implication of the impoverishment of Newfoundland planters is that they would not be able to participate in these new forms of consumption. Economic trends in the fishery run counter to a broad current in the evolution of demand. However, it is also possible the new consumables would be especially appealing to <u>déclassé</u> planter families

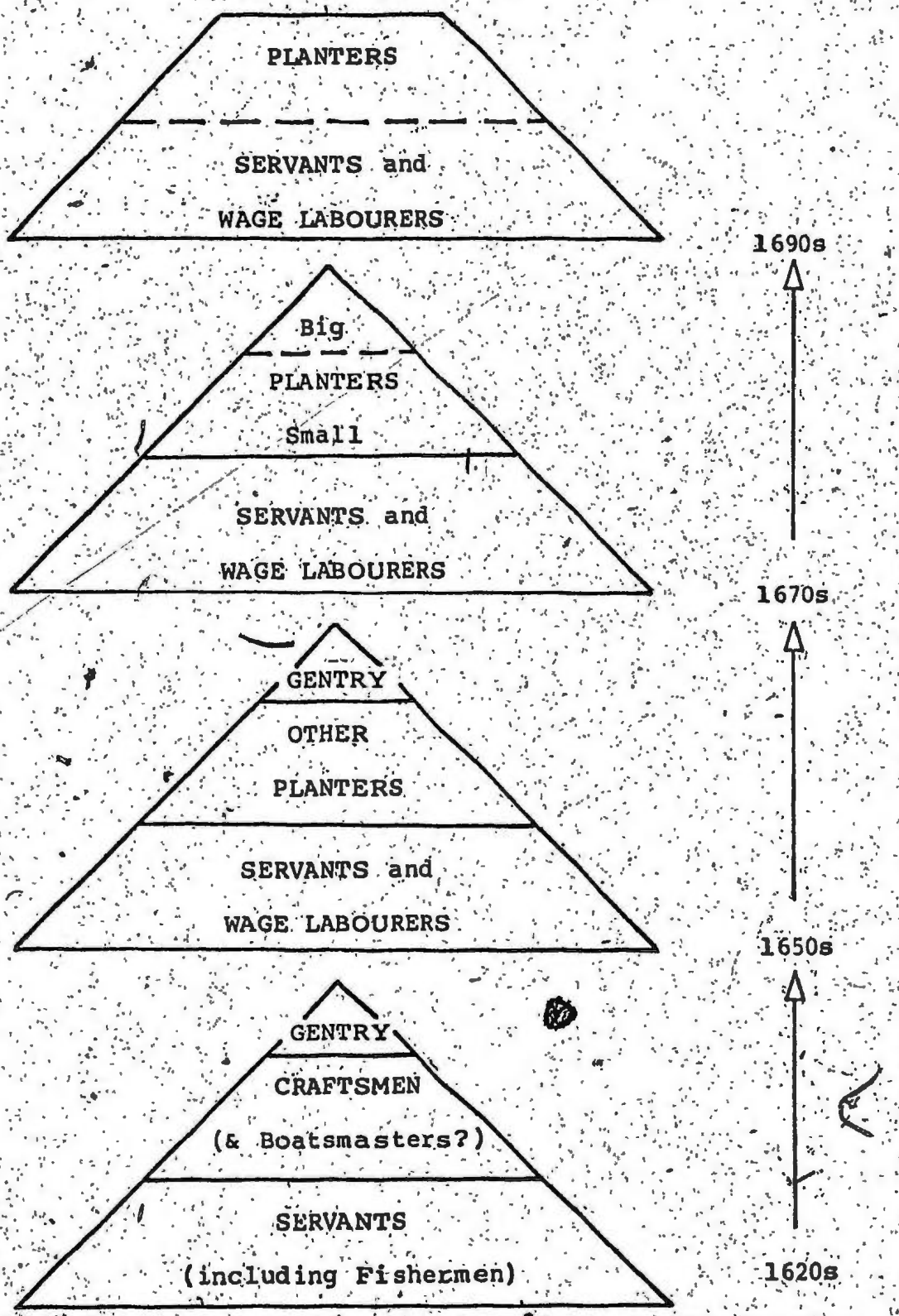

Figure 5. Schematic Model of Devolution of Class Structure in Seventeenth Century Newfoundland

wishing to distinguish themselves from former servants. The ratios, in various chronologically distinct site components, between highly decorated ceramics which can be assumed to have some sociotechnic function and simpler utilitarian wares will therefore be of some interest.

The material "vocabulary" in which social boundaries or other ideological constructs can be expressed is subject to various constraints besides the size of the economic surplus available for manipulation. Another kind of limit, at least with respect to consumption, is the range of available goods. The character of supply is affected in its turn not only by the costs of production and transportation but also by prior demand. Thus both economic and cultural factors are involved in determining the evolving supply arrangements that are reified for analytic purposes under the rubric "trade links". These are considered, together with other factors affecting supply, in the following chapter.

CHAPTER 4

TRADE AND TRADING PRACTICES

Trade Links

From the time of its initial exploitation by Europeans, Newfoundland was part of an international economy (Innis 1954) and this continued to be true even for those parts of the Island from which the English gradually excluded other nations. This was so because the West Country dry fishery at Newfoundland depended on foreign markets, especially Spain, Portugal and Italy (Matthews 1968: 74). The Newfoundland trade was essentially triangular (Stephens 1956: 98) -- southern products like wine would be shipped north whatever the nationality of the bottoms in which cod was delivered. The practice developed in the seventeenth century of sending specialized cargo vessels, the sack ships, for fish. Dartmouth dominated this trade for much of the century (Russell 1950: 82ff), but the Netherlands also took part, at least until exhausted by the Anglo-Dutch wars that flared until 1674 (Glerum-Laurentius 1960).

Provisions were regularly carried out by the fishing ships themselves early each season (Whitbourne 1622). It is unlikely that sack ships, including the Dutch ones, would supply provisions or other goods to the fishing ships and small settlements from whom they obtained dried cod

unless perhaps they had some distinct competitive advantage in a particular product. The imported material culture of the Newfoundland settlements would have been shipped, by and large, from the various outports in the West of England whose major business in this period was the Newfoundland fishery (Matthews 1968: 6-12). (Figure 6 is a map showing these ports.) There are three important patterns which can be discerned in the evolution of these trade links.

First, there was a struggle among the various ports for shares in the Newfoundland trade and consequent changes in their relative importance (Stephens 1956). Southampton for example, where Humfrey Gilbert assembled his expedition in 1583 (Quinn 1940: 57), traded extensively to Newfoundland only until the Civil War (Matthews 1968: 6). Plymouth, port of departure for the initial Ferryland colonists (Winne 8/26/1621), and Dartmouth, where Calvert's ships Arke of Avalon and George of Plymouth were stayed in 1627 (G. Calvert 4/7/1627), were both important ports in the Newfoundland trade at that time. Yet the absolute level of their trade declined after 1650, while the North Devon ports of Barnstaple and Bideford, with London and Exeter, enjoy relative or even absolute growth in their business (Stephens 1956: 91, 98). Both Dartmouth and the North Devon ports had exploited the fishing grounds around Ferryland and Caplin Cove (Matthews 1968: 184) but by the

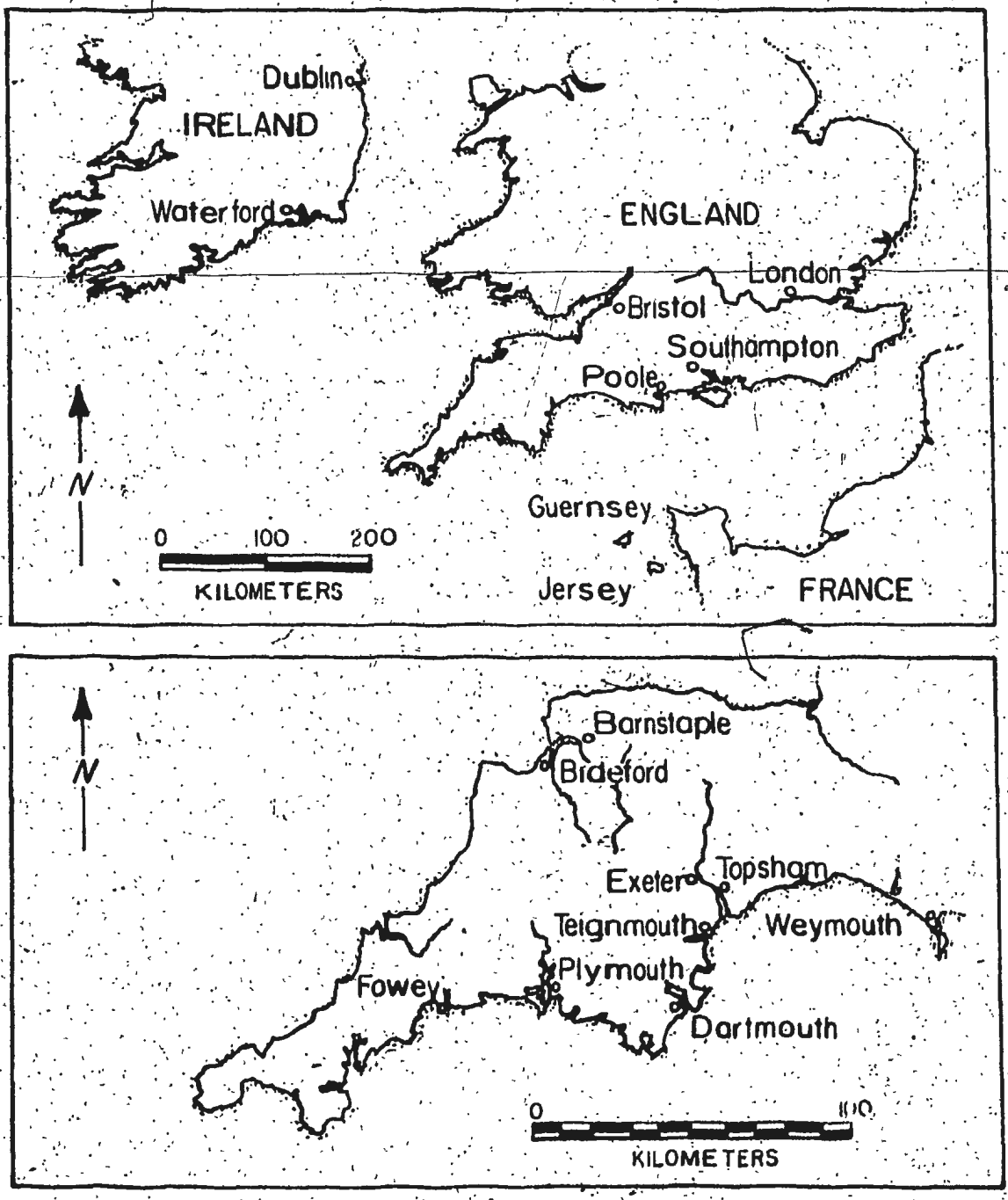

Figure 6. British ports with vessels in the Newfoundland Fishery, 1675-1681.

(Source: Returns to Heads of Enquiry cited by Matthews 1968: 184ff.)

1670s ships from Bideford and Barnstaple had completely displaced Dartmouth's at Ferryland (Table 8).

The domination of a particular harbour in Newfoundland by one or two of the West Country outports was repeated all along the English shore from Trepassey north to Bonavista and this pattern is the second discernable in seventeenth century Newfoundland/England trade links. Thanks to the detailed shipping data recorded after 1675 it is possible to define distinct trading areas in this period. Matthews (1968: 185) shows that the Dorset ports operated in Trinity Bay, Bristol and the Channel Islands in Conception Bay, the South Devon ports between Torbay and Ferryland and the North Devon Ports from Ferryland south. (See Figure 1.) These data suggest a relationship between the locations of particular Newfoundland stations and the locations of their dominant home ports: the home ports closer to Newfoundland being more likely to have operated towards the south of the English Shore. Why this might have been so is uncertain. (I hope to return to this question in future work.)

A third patterning of the English supply trade to Newfoundland can be seen clearly in the eighteenth century, when it is clear that certain goods were more typically exported by one port than by others (Head 1976: 103). About 1730 Bristol almost completely dominated trade with

Table 8. Port of Origin of Fishing Ships at Ferryland From Replies to Heads of Enquiry 1675-1681

YEAR AND PORT	SHIPS	MEN	BOATS
1675			
Bideford	4	61	11
Barnstaple	1	15	3
Plymouth	3	55	11
1676			
Bideford	5	109	20
Barnstaple	1	16	3
Plymouth	1	54	11
1677			
Bideford	3	75	15
Plymouth	1	42	9
1681			
Barnstaple (and Bideford?)	4	85	17

Source: Matthews 1968: 184ff.

St. John's in the kind of hardwares which tend to survive archaeologically, notably metals, glass bottles, window panes, bricks and earthenware (Head 1976: Table 6.3). We cannot project this particular supply pattern back a century. Bideford and Barnstaple, for example, shared an important export industry in coarse earthenwares which flourished until about 1700 (Watkins 1960, Grant 1983). It is, however, reasonable to suspect that such trade specialization would have existed, to some degree, in earlier periods. Thus, to remain with our example, the presence of North Devon wares in a given archaeological context may not indicate that trade at the harbour in question was dominated by Bideford and Barnstaple but simply reflect the general success of these ports in marketing earthenwares (Grant 1983: 85-100, 114-130).

The provisioning of Newfoundland changed after the Interregnum, perhaps because of a depression in the West Country fish trade about 1660-1690 (Stephens 1956: 93). Two new sources of supply became important: Ireland and the American colonies, especially New England (Table 2). Whitbourne (12/24/1622) suggested Ireland as an economical source of "corne, beeffe, butter, porke and some other provisions". It became increasingly common for fishing ships to call at Waterford and by the 1670s Ireland is a key supplier of fat and protein to Newfoundland. Meanwhile

the planters came more and more to rely on New England naval stores like tar and boards, the traditional provisions bread, peas, flour and salt meat as well as the new comestibles sugar, molasses and rum (Rogers 1911: 81).

An even larger Yankee trade developed offshore as Newfoundland waters became "a kind of magazine of contraband goods" (GB 1/12/1687), a convenient entrepot for the clandestine exchange of enumerated plantation commodities for foreign prohibited goods (Lounbury 1930). There was even a lively exchange of tobacco from Virginia and Maryland for European goods at Newfoundland (Lounsbury 1934: 201). This makes documentary evidence for the provisioning of Newfoundland itself difficult to interpret to the extent that most of the colonial products shipped to the Island went on to the continental Europeans while most of the incoming European wines, brandy, oil and salt went to the American colonies (Rogers 1911: 81). Inevitably some of these goods were disposed of to "the inhabitants, fishermen and seamen" (Fairbourne 9/11/1700).

These new trade patterns became obvious only late in the century and might, therefore, be thought irrelevant to the interpretation of archaeological contexts of the middle or early century. However the intrusive American trade probably has its roots as far back as the Interregnum

administration of Treworgie. Furthermore, in some respects this trade may have been as much an expression as a cause of consumption habits and commercial arrangements which tended to be documented only as they became bones of contention between competing trading interests. There are two intertwined developments here with archaeological implications: the truck system and the trade in alcohol.

Truck and Alcohol

The term "truck" meant barter to Guy and his contemporaries (10/16/2: 76) but in the eighteenth century it takes on the narrower sense of a system of payment in lieu of wages (OED). In Newfoundland the term developed an intermediate sense denoting the system of advancing provisions on credit against the expected catch of the ensuing season (DNE). How and when the truck system, in this sense, began to function in the Newfoundland cod fishery are important and unanswered questions. By 1684 most of the planters were in debt but were "bound to go on fishing or the merchants will sell them no provisions for the winter" (Wheeler 10/27/1684). Meanwhile the planters had erected a similar structure of obligations:

> [with] their servants, who run into debt, and are forced to hire themselves for payment thereof; one month's profuse living and a pair of shoes leaves them in bondage for a whole year" [Larkin 8/20/1701, cf. Story 9/1/1681].

A commercial institution like the truck system has great potential for shaping the lives of those enmeshed in its system of obligations. It has been argued that the nineteenth century truck system in the Gaspé was a mechanism of control of access to the fishery, a naturally open but limited resource (Ommer 1981). The truck system of the later seventeenth century Massachusetts cod fishery has been interpreted as a way of maintaining a work force in a situation of labour scarcity (Vickers 1981). Either model might apply to early modern Newfoundland: access control at the level of the merchant/planter credit system and labour discipline at the planter/crewman level. From the archaeological point of view the existence of such a system in one or both of these senses is of interest not simply as economic background but also because it implies that the procurement of imported material culture would have been completely centralized in each harbour so organized (Matthews 1968: 178). If it is unclear when truck emerges in Newfoundland, one of the characteristics of its seventeenth century phase is evident: as a commercial mechanism the truck system was lubricated with alcohol.

The mass consumption of distilled alcoholic spirits is a modern phenomenon which begins to develop among the English in the late sixteenth century (C.A. Wilson 1975: 61).

Mariners were among the first labouring people to regularly consume spirits. In his provision list for a fishing voyage (c. 1580) Robert Hitchcock allows about two fluid ounces per man per day with a one gallon beer ration (Drummond and Wilbraham 1939: 125). Several factors underlie this maritime consumption habit. Spirits had the advantage over beer or wine of keeping well on long voyages; mariners had the opportunity to visit sources of supply before alcohol was widely distilled and finally, because they often worked in a harsh environment, mariners had a special need for the illusion of warmth that distilled alcohol provides quickly. "Ten hours in the boats every day in the summer and the intolerable cold of the winter makes living hard without strong drink" (Wheeler 10/17/1684).

The evolution, in the last few centuries, of demands like the one for alcohol is intimately tied to the industrial revolution in production. Demand is, in fact, the other side of the coin. The systematic study of the consumption aspect of the larger issue, the rise of capitalism, is new -- a banquet to which the guests are only now accepting their invitations (McKendrick et al. 1982, Stone 1984). Such material history requires archaeology because the details of material life have often been beneath the notice of the literate. Conversely, if the consumer revolution is the single biggest issue in modern

material history (Carson 1978), then it must be taken into account in an archaeological approach to the period.

The fishing communities of the Newfoundland periphery have exchanged fish for other goods as long as they have existed. Fishermen might therefore be expected to form a founding cohort of the mass markets that developed in the new comestibles -- spirits, sugar and tea. We need a systematic history of the demand for these goods but only the interesting case of sugar has been attempted (Mintz 1984). Hence we can only grope cautiously in trying to discern the nature of what seems to be a very strong demand for alcohol at Newfoundland in the early modern period.

The West Country interests make continual charges, first against Kirke and later against the New England interests, that others are "debauching" the fishermen with alcohol (Plymouth 3/24/1646, Exeter 12/23/1670, GB 5/5/1675). This led to the enactment of a long series of such unenforceable directives providing:

> That no person do set up any taverns for selling of wines, beer or strong waters, cider or tobacco to entertain the fishermen, because it is found that by such means they are debauched... neglecting and making themselves unfit for their labour...[GB 6/3/1653]

It would be all too easy to conclude that Kirke or, on the basis of slightly later complaints, the New England traders were fostering a new demand but there is evidence

that West Country interests were also deeply involved in the alcohol trade (eg. Wheeler 10/27/1684). Whoever supplied the drink it is clear that it became an essential link in the mechanism of the truck system:

> Considerable quantities of rum and molasses are brought hither from New England, with which the fishers grow debauched and run into debt, so that they are obliged to hire themselves to the Planters for payment thereof. [Fairbourne 9/11/1700]

There is material evidence suggesting abundant use of alcohol at Ferryland. Much of this is glass which is not being dealt with here. Ceramics, the class of artifacts under discussion, are only part of material culture system for alcohol consumption. For this and other reasons I intend to explore alcohol consumption and the archaeological expression of its relationship with the organization of labour at a later date. I have raised the subject here, just as I have raised the subject of truck, to emphasize that there are a number of ways in which the use of material culture may be constrained or encouraged besides the existence of routinized trade relationships.

Some hypotheses regarding the cultural as well as the strictly economic parameters influencing the occurance of ceramic vessels are offered in the following chapter in the context of a discussion of the excavations carried out to date at Ferryland.

CHAPTER 5

ARCHAEOLOGICAL RESEARCH AT FERRYLAND (CgAf-2)

Previous Research

The fact that Ferryland was colonised in the early seventeenth century under the proprietorship of George Calvert, Lord Baltimore, was not forgotten in subsequent generations (cf. Anon. 1670) but the precise location of Calvert's premises and in particular the Mansion is now uncertain. A number of brief archaeological investigations have been undertaken in the last half century with a view to locating this once well-known structure, with inconclusive results to date. The best evidence for its location remains the documentary record. In the process of looking for the headquarters of the Calverts and the Kirkes we are, on the other hand, finding archaeological material that will enable us to better understand a changing society of small planters and servants whose lives were intertwined with the provincial gentry who occupied the great house.

A party from Baltimore Maryland visited Ferryland in 1937 and undertook some excavations (Tuck 1985: 379). Dr. S.T. Brooks wrote a brief unpublished report and a newspaper article summarizing his reasons for thinking that the Mansion House was located near the present school at

the western end of the narrow tombolo beach that makes Ferryland Head a peninsula rather than an island (cited in Barakat 1976: 16). (See Figure 7 for Ferryland locations.) Materials excavated are unavailable for study (Tuck 1985: 379).

In 1959 J.R. Harper surveyed Ferryland for Canadian Historic Sites (the predecessor of Parks Canada) in search of Calvert's Mansion House and excavated a 6' x 6' test square in an abandoned garden at the Pool, Ferryland's inner harbour, not far from the eastern end of the tombolo isthmus (Harper 1960). The precise location of this test excavation is uncertain but it was very close to the area in which the artifacts discussed in the present study were found (Tuck 1985: 380). Harper found evidence for occupation at this site in each of the three centuries that have elapsed since Ferryland was settled. The materials excavated, which included several types of ceramics, are unfortunately not available for study (J.A. Tuck, personal communication 1986). Harper dates some artifacts from the lowest strata c. 1625-1650 and on this basis concludes that "this was a wing or outbuilding of the main Baltimore house just to the west" (1960: 111).

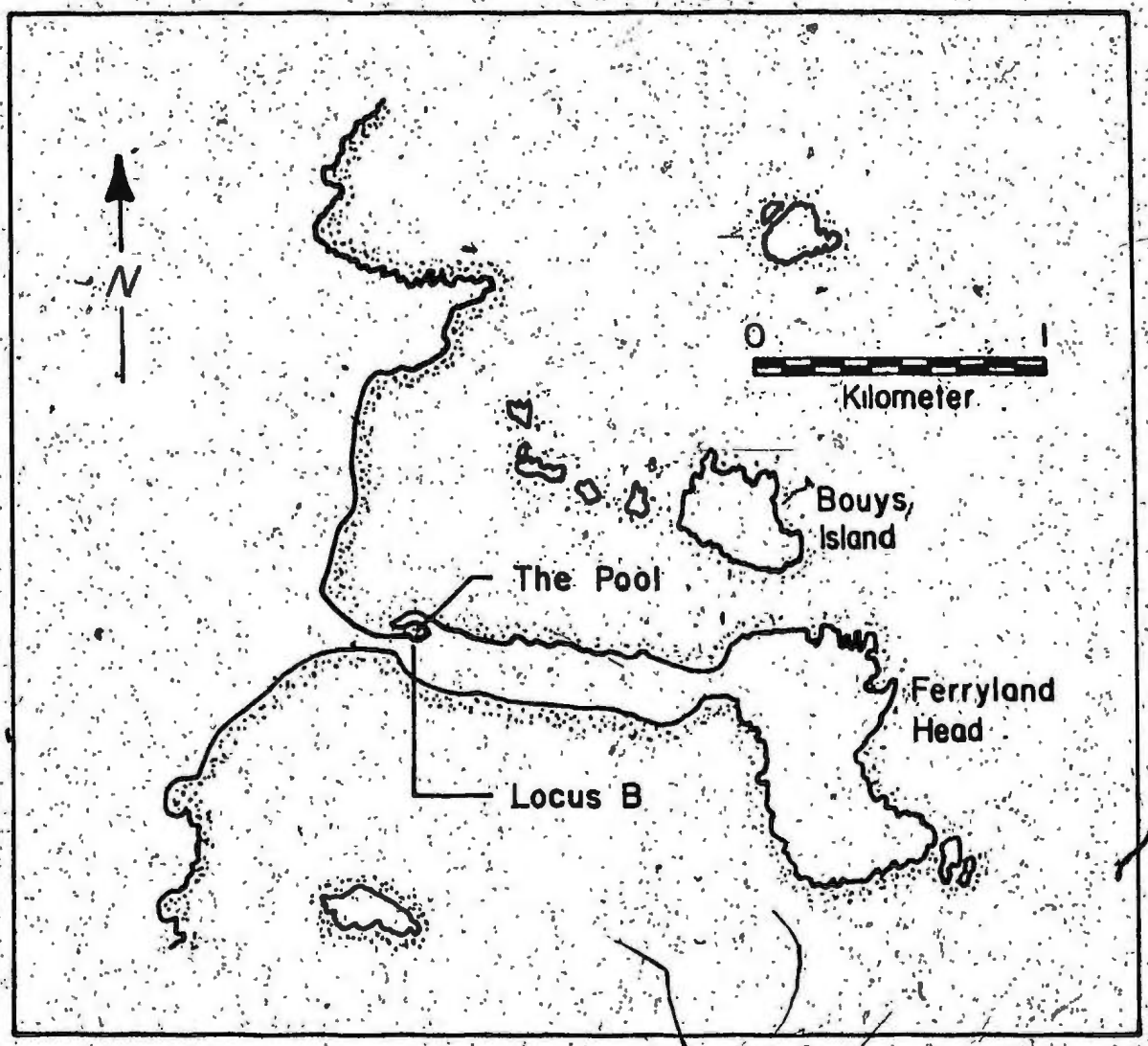

Figure 7. Ferryland.

Harper's artifact identifications are plausible but his interpretation of the site, although it may be correct, rests on the historically questionable assumption that occupation of Ferryland was so restricted in the second quarter of the seventeenth century that remains from this period are ipso facto related to Calvert's venture. In the light of the documented continuous occupation in this period, the presence of roughly dated materials is not enough to warrant such conclusions. Recent excavations do indicate that the locus in question was the site of a small outbuilding. Archaeological evidence for proximity to the Mansion House might be found in artifact analysis and such an interpretation will be offered below.

In the early 1970s an excavation was carried out on Bouys Island, just north of Ferryland Head, under the direction of R.K. Bamkat. This had been the site of British fortifications during the Seven Years War (Des Barres map 1762). There is no relevant report on file either at Memorial University of Newfoundland (MUN) or at the Newfoundland Museum. The excavated artifacts are in the collection of the Newfoundland Museum and they appear to be of eighteenth century origin.

Barakat did publish an analysis of some of the evidence relating to the location of the Mansion House, concluding that the alternative sites proposed by Brooks and Harper "appear to be equally valid" (1976). In coming to this conclusion he gives some weight to Fitzhugh's map of Newfoundland (1693), on which an inset of Ferryland shows a four-gabled structure on the road to Aquaforte south west of the isthmus. Given the decorative quality of the map this representation of a large building with flags at Ferryland could be largely symbolic. More weight might be given Younge's map of c. 1663 (Figure 8), which Barakat does not consider. This map is not accurately surveyed but is a good representation of Ferryland drawn by an intelligent observer who worked in the area, as a surgeon, for several seasons while the Mansion House was still in use. It shows "Lady Kirkes" premises south-east of the Pool. As Barakat points out, contemporary descriptions of the location are ambiguous; the contemporary cartographic evidence, however, favours a location in this area. It is worth noting that in the nineteenth century Bishop Howley assumed this was the site of the early colony on the basis of local tradition (1888: 111).

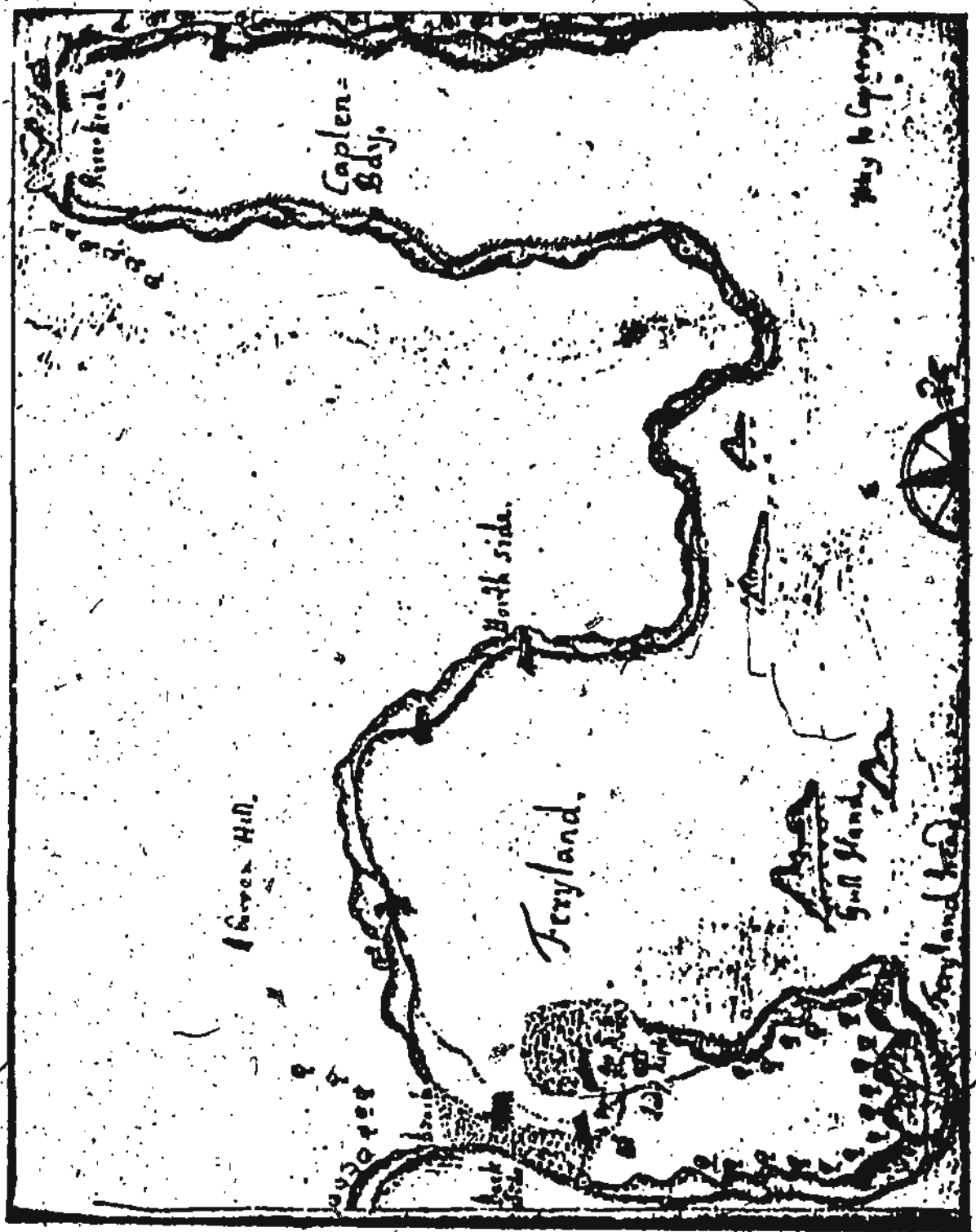

Figure 8. Feryland by James Younge, c. 1663.
Plymouth Atheneum

Current Research

During the fall terms of 1984 and 1985 crews from MUN's Archaeology Unit carried on intermittant excavations at Ferryland under the direction of Dr. J.A. Tuck (Tuck 1985, Robbins 1985). These investigations, which will continue on a full-time basis in the fall of 1986, have already resulted in three artifact collections, which are now under study.

1. The Pool. This small inner harbour has been dredged several times in the last quarter century and spill dumped on the seaward side or on neighbouring gardens, depending on its character (R. Costello, personal communication 1986). A surface survey of the seaward stoney spill area was carried out in the fall of 1984 and another, by R. Ferguson of Parks Canada, in 1985. This surface collection consists of several hundred artifacts, mostly pipes, glass and ceramics. The material indicates that the Pool has been in use as a refuse dump since the early seventeenth century (Skanes and Deichmann 1985). R. Skanes' underwater survey suggests that there remains a baulk of undredged sediment in the Pool and stratified materials from such a deposit could yield information about the other "Maritime Centered" European occupations of Ferryland Harbour, prior to English settlement (Skanes 1985: 19, Tuck 1985: 387). Pending a controlled excavation of

stratified underwater materials the Pool collection can be compared to artifacts recovered from the land site. The Pool ceramic assemblage includes a wider range of Early Modern wares but the major varieties are the same, both English and Iberian ceramics being well represented in each case. Vessel forms are similar.

2. Locus A. This consists of four one metre test squares at the eastern end of the tombolo beach, excavated in 1984. No clearly identifiable early seventeenth century material was found (Tuck 1985: 380).

3. Locus B This area, further to the east on the peninsula that becomes Ferryland Head, is the major site so far investigated at Ferryland, being the location of Harper's testing in 1959 as well as current excavations. About 60 m^2 have been opened, although not all of these have been taken down to sterile subsoil. Five seventeenth century features have been recognized and roughly 3500 artifacts representing over 300 years of occupation recovered in three major strata (Robbins 1985: 5). Most of these artifacts date to the seventeenth century. It is the ceramics from undisturbed contexts at Locus B that are to be discussed here and it is, therefore, worth describing stratigraphy so far observed and current interpretations of features (Tuck 1985, Robbins 1985).

Features and Stratigraphy of Locus B (Figure 9)

Feature 1 is a seventeenth century "Room" excavated into the subsoil underlying the embankment which runs roughly east/west across the southern end of Locus B. The Feature 1 Room is about 4 meters (= 13 feet) wide. Its northern extention may be indicated by the horizontal limits of Stratum 3. Its penetration southwards into the original embankment remains undetermined.

Feature 1a is a concentrated deposit of charcoal, slag and iron concretions occuring just under Stratum 2b within the Feature 1 Room to the north of Feature 1b . The five pipe stems recovered from this Forge Refuse have bores consistent in diameter with manufacture in the 1630s. Pipe bowls are of the small "acorn" type and identifiable styles were produced in the period 1620 - 1660 (Tuck 1985: 383).

Feature 1b is a rectangular rock structure about 1.2 x 1.8 m located within Feature 1. The adjacent Feature 1a Forge Refuse suggests that Feature 1b was a Forge.

Feature 2 is a thin "Destruction Zone" which remains undisturbed in several areas. It consists of the charred remains of burned boards with artifacts such as onion bottles and pipes datable to c. 1670.

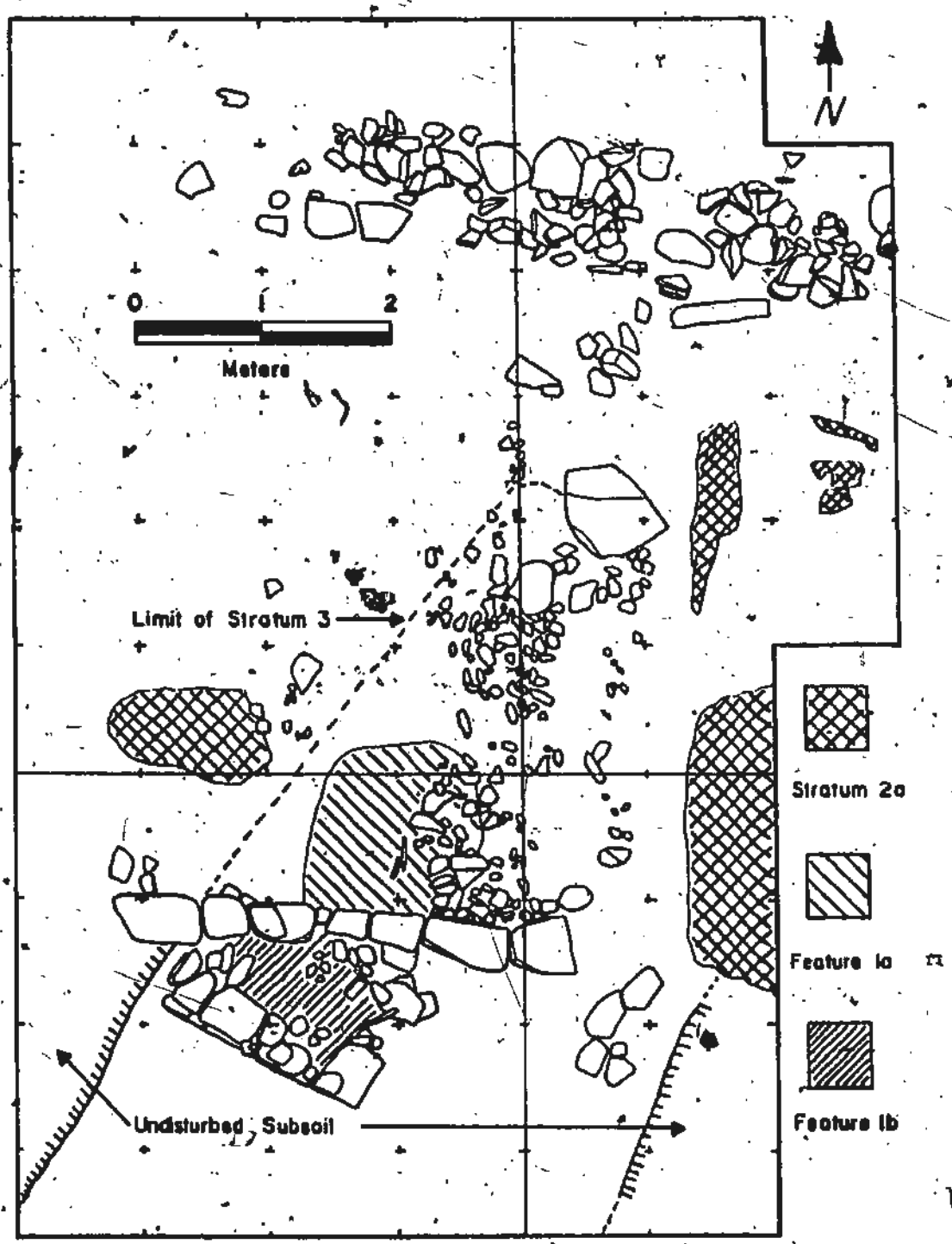

Figure 9. Ferryland (CgAf-2) Locus B. The north/south and east/west datum lines are shown. The stratigraphic profile is not yet available.

Feature 3 is a section of stone wall in Stratum 2 running east/west across the base of the embankment and overlying the Feature 1b Forge. Feature 3 is not oriented with any apparent reference to the Feature 1 Room and the Feature 1b Forge, which are coordinated.

Feature 4 is a broad alignment of stones running approximately east/west across the northern end of Locus B at the bottom of Stratum 2, where this is discernable. The deep fill layer north of this Stony Fill seems to be thoroughly mixed.

Feature 5 is an alignment of small rocks running north/south at about the E0 line. The Feature 5 Wall seems to be perpendicular to the Feature 3 Wall. Datable artifacts from the top of the wall fall into the same late period as the Feature 2 Destruction Zone. Artifacts from within the Feature 5 Wall are earlier.

Stratum 1 is a disturbed "Plough Zone" over the whole site north of the steep embankment at the southern end of the site into which archaeological and seventeenth century excavations have been made. Artifacts are typically nineteenth or twentieth century with an admixture from the seventeenth century, presumably by disturbance of the underlying stratum.

First Fill is a similar mixed stratum which seems to have slumped down onto the southern end of the site from a garden terrace above the embankment to the south. For analytic purposes it is considered here to be equivalent to Stratum 1.

Stratum 2a is the thin charcoal layer whose horizontal distribution constitutes the Feature 2 Destruction Zone datable to the 1670s.

Stratum 2b is a layer of fill over most of the site with a southern limit roughly at the base of the embankment to the south. It is artifact rich. The presence of case bottles suggests a date earlier than Stratum 2a. It is unclear whether the 2b Fill was deposited gradually or within a period of only a few years. The mean pipe stem bore measurement is consistent with manufacture in the early 1640s.

Stratum 2c is a deposit of limited extent within the Feature 1 Room (Squares W1S2, W1S3). It overlies Forge Refuse and probably dates to the time of abandonment and initial filling of the Feature 1 Room. Two styles of pipe bowls have been identified: one dated 1600-1650; another, of which five examples occur, dated 1640-1670 (Lane 1986: 53, 54).

Stratum 2d flanks the Feature 4 Stony Fill to the north and lies immediately below the Stratum 1 Plough Zone. It contains mostly seventeenth century material with some nineteenth century items, even at considerable depth.

Stratum 2e is a limited deposit at the level of the Feature 1a Forge Spill, somewhat to the west.

Stratum 2f or Second Fill overlies the Feature 1 Room where it was excavated into the embankment. Artifacts are similar to those from Stratum 2b and pipestems have a mean bore date of 1641 (n = 111). The three identified pipe bowl styles are dated in use 1610-1640, 1610-1650 and 1640-1660 (Lane 1986: 53, 54).

Stratum 3a is a thin organic layer below the Stratum 2f Second Fill, observable in a limited area south of the Feature 1b Forge (Squares W3S3, W4S3). It overlies a thin layer similar to 2b and 2f and may possibly represent the decayed walls, second floor or roof of the Feature 1 Room. The 22 pipestems have bores consistent in diameter with manufacture in the 1620s or 30s and the single diagnostic pipe bowl style dates 1610 - 1660 (Lane 1986: 53, 54).

Stratum 3b is a thick black deposit adjacent to and south of the Feature 1b Forge. Bore analyis of 57 pipestem

fragments yields a mean date c. 1640, representing probably the last years in which the Feature 1 Room was in use. Four pipe bowl styles have been identified and these are dated 1610-1650, 1610-1660, 1640-1660 and 1660-1680 (Lane 1986. 53, 54).

Stratum 3c is a dark compacted layer, probably the floor of the original Feature 1 Room. It has been reached in only one square. Measurements of the nine pipestems recovered are consistent with manufacture prior to 1620.

Interpretation

It is tempting to see Feature 1 as the Avalon Colony's "Kitchin", which Captain Winne described as having involved labourious digging. He wrote:

> I went forward with our kitchin, of length 18. foot, 12 foot of breadth and 8. foot high to the eues, and walled vp with stone-worke, with a large Chimney in the same. Ouer the kitchin I fitted another Chamber. All which with a staire-case and conuenient passages... [7/28/1622].

This was the second largest building constructed by the original colonists, after the Mansion House itself. Such buildings, which came to be called cookrooms, were used by boats crews "to dresse their meate in" (GB 2/10/1634), ie. in which to prepare food as well as in which to eat (cf. Shammas 1980: 11). These buildings seem to have been conventionally about the same size as Winne's "Kitchin"

but were normally much less solidly built, being in fact the only buildings that it was legal to sheath or roof with rinds, that is the bark of fir (GB 2/10/1634, 1/27/1676). The Avalon Colony was not just a seasonal venture and this would account for the solid construction technique.

Feature 1a is clearly Forge Refuse, probably of the 1630s. This does not mean that Feature 1b was always a Forge. Feature 1 may have been built as a Cookroom and Feature 1b may have been originally the location of the chimney, in an asymetrical layout which occurred in one and a half storey buildings, like the original "Kitchin", in this period (Noël Hume 1969a: 127).

Identification of the Feature 4 Stony Fill remains problematic. Possibly it is disturbed fill from an embanked platform created originally within the palizado wall of the original colony (Winne 7/28/1622, cf. Noël Hume 1982: 224).

The coordinated Feature 3 and 5 Walls are probably related and certainly belong to a period after the Forge was abandoned c. 1640. They may be the remains of the foundation and protective retaining wall for the building which burned c. 1670 and whose charred remains form the Feature 2 Destruction Zone. The identification and function

of this building is not clear, nor its relation to the Strata 2b and 2f Fill which blankets the site at this level. The question of whether this fill was deposited rapidly or over many years has a direct interpretative significance here. This question in turn hinges on others: whether artifacts within it are generally stratified chronologically (Tuck 1985: 381) and to what extent artifacts recovered can be dated to a restricted period.

His analysis of pipe bowl styles suggests to Lane a "clean fill" soon after the abandonment of the forge/cookroom (1986: 37) and he offers "median" dates for Strata 2c, 2f, 3a, and 3b of 1640, 1635, 1630 and 1645 (1986: 54). The "clean fill" hypothesis might be called into question by a recalculation of these dates, weighting the various medians in accordance with the frequency of occurence of the various bowl styles. This yields mean median dates of 1660, 1635, 1635 and 1647 which are both later and less clustered than the unweighted figures.

Interpretative Hypotheses

The interpretations suggested above are hypothetical. It may be instructive to make such hypotheses explicit and possible to test some of them against the ceramic data. In my view the formulation of hypotheses is a useful convention not because it somehow makes research into societies

scientific but for heuristic and rhetorical reasons. It makes our expectations self-conscious and in a context of scientific regard for evidence it should, therefore, serve to sharpen observation and clarify exposition.

Apart from testing preliminary interpretations of Locus B it may be possible to bring ceramic evidence to bear on more general hypotheses about the economic and social history of Ferryland in particular and of the English Shore and even of North Atlantic maritime life in general, as I have suggested occasionally in the preceeding chapters. It will be convenient to summarize these here, proceeding outwards from the particular and more easily testable interpretations of a small site towards general hypotheses about whole regions or occupational groups -- hypotheses which will hardly be confirmed or disconfirmed by the data from just one site but which can be evaluated against patterns emerging from excavation in several areas. For expository convenience hypotheses are grouped here according to whether they will be tested against patterns of ware (Chapter 9) or vessel form (Chapter 10) occurrence.

1. Locus B is close to the site of the Mansion House.
   Test: Identified wares in secondary deposition should include a high proportion of more expensive wares.

2. Strata 2b and 2f represent a "clean" or rapid fill.
Test: Closely datable wares and vessel forms from these strata should fall into a restricted period.

3. The 2b/2f Fill occurred about 1640.
Test: Date ranges for wares and vessel forms from these strata should overlap the period 1635 - 1645.

4. Ferryland was populous and active c. 1640 - c. 1680.
Test: In occupations spanning the seventeeth century these decades should be well represented.

5. Harbours on the English Shore were supplied by fishing ships from the West Country not by sack ships in the Newfoundland/ Mediterranean/ England triangular trade.
Test: Mediterranean wares should occur in proportions similar to those at West Country ports.

6. Dutch sack ships did not regularly supply goods to settlements on the English Shore.
Test: Wares of Dutch provenance should be uncommon.

7. The North Devon ports came to dominate the harbours of the southern Avalon during the seventeenth century.
Test: The ratio of North Devon to other West Country wares should be greater in later contexts.

8. Trade with the American colonies was not significant along the English Shore before the 1650s.
Test: American wares should not occur in pre-1650 contexts.

9. Some form of the truck system was beginning to operate on the English Shore by c. 1670.
Test: The variety of wares in post 1670 contexts should be restricted compared to earlier assemblages.

10. Locus B was used initially as a Cookroom.
Test: Vessels in the lower strata should include a high proportion of cooking and storage vessels.

11. Ferryland underwent managerial reorganization in 1638.
Test: Occupations should be initiated, abandoned or change in function at or soon after this date.

12. Ferryland's subsistence economy involved dairying.
Test: Vessel forms related to dairying should occur in food preparation areas.

13. On the English Shore imported foods, including fats, were an important part of the diet.
Test: Vessel forms related to storage and shipping of fats should occur in food preparation areas.

14. The inhabitants of the English Shore were relatively healthy compared to settlers around the Chesapeake.
Test: Health-related vessel forms should form a relatively low proportion of vessels at Locus B.

15. In Maritime communities alcohol was consumed in relatively large quantities.
Test: Vessel forms relating to the service of alcoholic beverages should form a relatively high proportion of vessels from food service areas.

The application of some of the proposed tests is not straightforward and will depend on comparative studies in order to interpret particular ratios and even terms like "common". Some comparisons will be offered below but it is necessary first to describe the wares, define the vessel forms and catalogue the distinguishable vessels at Locus B.

CHAPTER 6

WARES

Introduction and Lexicon

The description of an assemblage is an archaeological exercise in what Gardin (1980) has called compilation, as opposed to explanation. The distinction is important, for the differing purposes of compilation and explanation may require differing terminologies. Gardin suggests that the function of compilation:

> is to present archaeological data in a form which will enable others to retrieve them without too much effort, in connection with comparative or historical investigations which the compiler can neither anticipate, nor confine to his own interests [1980: 26]

To think that this information is most usefully organized around a particular research interest is to confuse the language of science and the language of information. Compilations are most effective as information exchange to the extent that they are expressed within a thoughtfully and explicitly designed lexicon and syntax (Gardin 1980: 32,43,52). This is the challenge of descriptive analysis which should be conceptually distinguished from the parallel but distinct problem of analytic typology (Spaulding 1953, Binford 1965, Hill and Evans 1972).

This view of the function of a catalogue is, to my mind, a powerful argument for terminological conservatism

and I have therefore tried to follow the usage of the current literature. This is, of course, not always possible and where terminologies are inconsistent or where I depart from standard usage I shall try to define my terms.

Perhaps the most elusive descriptive terms are colours. Parks Canada has experimented with description using Munsell colour charts (G. Gusset personal communication 1985). I have not followed this example because such description is incomprehensible without a Munsell Chart and because many wares considered here vary considerably in fabric and glaze colour depending on peculiarities of firing. Hence a vagueness in colour terminology is actually appropriate to such wares, although precision is always desirable, of course, in the description of particular artifacts.

Some of the colour terms used here may need definition:

"Off-white" : slightly grey white.

"Cream" : slightly yellow white.

"Buff" : slightly brown white.

"Beige" : light brown (browner than buff).

"Brick Red" : reddish orange brown, "terra cotta".

"Salmon" : deep pinkish orange.

"Light Orange" : whitened orange, like orange ice cream.

"Chocolate": a deep brown the colour of dark chocolate.

Colour terminology syntax is as follows:

1. Where two colours are concatenated the first modifies the second, which should be considered the dominant. Thus "yellow green" is greener than "green yellow".

2. Where colours are separated by a slash "/" each of the colours occur. "Yellow/green", for example, indicates that both yellow and green are present, severally.

3. In descriptions of fabrics with layers of differing colours the outermost colour is designated first. Thus an "orange/ grey" fabric is orange on the exterior.

Several other technical terms require definition, because they are not used consistently in the literature: "coarse" : having a coarsely-grained texture, except in the standard term "Coarse Earthenware" in which it connotes lack of refinement; "fine" : having a finely-grained texture; "rilled": with distinct throwing rings (with no implication of this being a deliberate decorative feature).

Earthenwares

NORTH DEVON EARTHENWARES

These wares developed in the small North Devon towns of Bideford, Barnstaple and Great Torrington in the fifteenth and sixteenth centuries (Allan 1984: 130). In the seventeenth century Bideford and Barnstaple exported these wares widely to North America (Watkins 1960) and to neighbouring

regions of the British Isles (Grant 1983: 77-113). This trade fell off in the early eighteenth century for a variety of reasons (Grant 1983: 131-134), although production of some forms continued into the nineteenth century (Brears 1971: 53). Vessels found in Newfoundland context are likely to date before 1725 by which time the Staffordshire potteries had captured North Devon's former export markets (Weatherhill 1983: 18). The ware occurs in two major varieties, Smooth and Gravel Temper, and two minor varieties, Calcerous Temper and White Bodied (Allan 1984: 148), distinguished primarily by their fabrics but also by decorative technique and typical vessel forms.

North Devon Gravel Temper Earthenware[1] has a heterogeneous pink orange or grey fabric, often stratified with the greyer hues on the interior. The fabric consists of a fine matrix with a lot of angular quartz temper and sometimes some black or white mica. Vessels are roughly thrown and heavily rilled, although rim and handle forms are by no means amorphous. They are often coated on surfaces to be glazed with a thin slip, sometimes white but often buff, pink or even beige and therefore hard to distinguish from the fabric. Irregular brown or dark green lead glazes are typical, normally on the interior, although the exterior of chafing dishes may be glazed.

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[1] Parks Canada CEW 16.1.

Other forms include jugs, bowls, tripod skillets and pipkins, pots, chamber pots, mugs, baking pans, and portable ovens[1] (Grant 1983: 136). Good examples of Gravel Temper ware have been published from American sites, notably Jamestown (Watkins 1960), and from the West Country itself notably Plymouth (Fairclough 1979, Gaskell-Brown 1979) and Exeter (Allan 1984). This is the most common ware occuring at Ferryland Locus B.

The Calcareous Temper ware is similar except that it is largely gravel-free and instead is tempered with a fine white calcareous material, perhaps crushed shells, which leach out over time leaving a pitted surface (Allan 1984: 148). Pots, tall pots and cisterns were produced in this fabric and are usually unslipped with a green brown interior glaze.

North Devon Smooth Fabric Earthenware[2] is also usually stratified orange/grey. There is, apparently, a White Bodied Smooth ware (Allan 1984: 148) but this has not shown up so far at Ferryland. The standard fabric is hard, smooth and uniform with a few white or grey quartz inclusions. Vessels are roughly thrown and rilled but eating

[1] For vessel form terminology please see the following chapter.

[2] Louisbourg type 33 (Barton 1981).

and drinking vessels are often smoothed. They normally have a light coloured slip and a green or brown lead glaze on the interior, but exterior surfaces of jugs, cups, mugs and chamber pots may be slipped and glazed as well.

The sgraffito techique of cutting through the fresh slip prior to glazing is by far the most common decorative technique on the Smooth ware, although jugs, chamber pots and mugs are sometimes slip trailed. Grant suggests that sgraffito decoration may be associated particularly with Barnstaple (1983: 13ff). It occurs on the containers just mentioned as well as on flatwares, bowls, pans, porringers and chafing dishes. Floral and geometric motifs involving hooks, scrolls, rouletted dots and bands of combed parallel lines predominate, although examples of human figures, heraldic devices and inscriptions also exist. The collection from Martin's Hundred and the display of dishes at Jamestown give me the impression that sgraffito decoration resembling gothic lettering, in the sense that the width of the incision varies with the direction of the line, is generally earlier than sgraffito with more even incisions that look like they might have been done with something shaped like a blunt pencil. At Exeter sgraffito vessels occur generally in contexts dated c.1660-1700 (Allan 1984: 132). All but one of the sgraffito sherds from Jamestown are from post 1670 contexts; the earlier and

cruder example, decorated with "hook-like" ornaments, is pre-1640 (Watkins 1960: 43). Sgraffito ware was recovered from contexts of c.1630-40 at Martin's Hundred, Virginia (Grant 1983: 116). Sgraffito is rare everywhere in excavated contexts after 1700 (Allan 1984: 132).

Many sgraffito decorated vessels have been published, notably from Jamestown (Watkins 1960, Grant 1983) and from North Devon sites (Grant 1983). Undecorated parallels of some glazed forms have been published from excavations at Plymouth (Gaskell-Brown 1979) and Exeter (Allan 1984). It should be noted that tall "baluster" pots and cisterns, although sometimes Smooth are not decorated (Grant 1983: 136). North Devon Smooth wares are the second most common ware at Ferryland, locus B.

SOUTH SOMERSET EARTHENWARE (=Donyatt Ware)

Donyatt was the most prominent of several South Somerset potteries producing similar coarse wares from mediaeval times. Production peaked c. 1600-1800 and these wares have been recovered not only locally at Taunton but at Bristol, Exeter and in America (Coleman-Smith 1979: 13, Allan 1984: 132, Noël Hume 1970: 105.) The fabric is pink or in later examples buff and vesicular with fine quartz inclusions and scattered lumps of iron oxide (Allan 1984: 135). Bodies are rilled but even and moderately

delicate. Vessels were usually slipped in white on the interior, although exterior surfaces are also slipped in some forms. Glazes are normally lead-based yellow or amber, again usually on interior but also on some exterior surfaces. A few vessels are glazed in black manganese. A copper green variation was so common in the eighteenth century that Noël Hume makes its presence a defining characteristic (1970: 105). Exeter finds suggest that sprinkled green stain in the glaze was a late development, after c. 1690, although splashed or brushed copper green was common c. 1640-1700 (Allan 1984: 134).

The South Somerset potters used techniques of slip decoration often associated with other centres, in the seventeenth century employing trailed slip and sgraffito work (cp. Metropolitan and North Devon wares, respectively) and, in the eighteenth century, combing the white slip to reveal a brown underslip (cp. Staffordshire/ Bristol wares). Slips and glazes were also brushed on. Motifs include scrolls, bands, zig-zags, other geometrical forms, foliage, and figures. An examination of Parks Canada's Donyatt wares suggests that South Somerset combed wares may be distinguished from the Staffordshire/ Bristol wares by a rippled rather than smooth surface left after combing. Sgraffito work in the Parks examples is often accompanied by brush work, thus providing, with fabric colour and

texture, several ways of distinguishing South Somerset examples from North Devon ones. A number of South Somerset vessels have been published from collections at Plymouth and Exeter (Gaskell-Brown 1979, Fairclough 1979, Allan 1984). Vessel forms in the seventeenth century included bowls, dishes, chafing dishes, jugs, chamber pots, tripod pipkins, cups, cisterns, candlesticks, lids, bucket-handled pots, porringers, and ointment pots (Allan 1984: 150).

SOUTH WEST MICACEOUS EARTHENWARE (= St. Germans Ware)

This is a vaguely defined group of wares (Coleman-Smith 1979: 18). It includes St. Germans wares, produced in Cornwall just west of Plymouth c. 1450-1550 (Allan 1984: 149) but also wares produced with similar clays c. 1300-1700 (Broady 1979: 55). The fabric is normally grey buff or red buff with a grey core, sandy, with quartz temper, some dark or white mica and a few brown stone inclusions. Allan (1984) distinguishes a South Devon micaceous ware but here all micaceous wares of West Country form will be lumped together. Bodies produced by the Plymouth area potters are medium or heavy, well-fired and well-thrown. There is normally no slip, though some vessels are decorated by brushing a thin white slip in bands or geometric motifs on the exterior and a few are slipped on the interior. Glazes when present are amber, brown or green on interior surfaces. Vessel forms include bowls, chafing dishes,

candlesticks, cisterns, lamps, pots, dishes, skillets, jars, pans and jugs.

SOUTH WEST SANDY EARTHENWARE (=Exeter Coarse Sandy Ware)

This was the most common ware at Exeter in the late sixteenth century and common through to an abrupt decline c. 1650 (Allan 1984: 136). It was probably manufactured somewhere near that South Devon city since it is uncommon elsewhere. The fabric is coarse grained and sandy with many quartz but few other inclusions. Bodies were carefully thrown in a few simple forms: bowls, jugs, pipkins, pots, pans, bottles and chamber pots (Allan 1984: 153). Vessels were not slipped but were normally glazed on the interior with a reduced dark green, varying to orange, brown, yellow green or red brown.

STAFFORDSHIRE AND BRISTOL SLIPPED EARTHENWARES
(= English or Yellow Slipware)

These wares, thrown or moulded with the light coloured clays often found near coal seams, are usually associated with Staffordshire but Bristol produced similar wares (Barton 1964). These bright and highly decorated goods became very common in the eighteenth century, to c. 1780, but were already in production by c. 1670 (Coleman-Smith 1979). They do not seem to have been exported in great quantity until the 1720s (Allan 1984: 128).

The fine chaulky fabric fires a light buff yellow and is sometimes marbled with darker clays. Brown and red inclusions occur. Bodies are moderately delicate and, in the eighteenth century, often bulbous with straight collar necks and everted rims. Vessel forms include mugs, cups, chamber pots, candlesticks, dishes, plates, bowls and porringers. Normally a chocolate brown slip was trailed or combed into a white base slip but white on brown examples also occur. Because two slips were used simultaneously the resulting surface is smooth, unlike the surfaces of South Somerset or North Italian slipwares. Motifs include marbling, zig-zag scales, stripes and other combed effects as well as dots, lines and human figures. Noël Hume (1970: 135) suggests that vertical patterns are typical of the period to 1700. Both Bristol and Staffordshire potteries employed a clear yellow lead glaze producing a uniform bright surface. Staffordshire/ Bristol Slipware vessels have been published from Plymouth (Gaskell-Brown 1979), Exeter (Allan 1984) and Williamsburg (Noël Hume 1969b). Parks Canada has a good reference collection.

SOUTHERN WHITE BODIED EARTHENWARE

(= Tudor Green, Farnham Ware, Southeast Dorset Ware[1])

This is a broad group of ceramics, varieties of which have been called Tudor Green or Farnham Ware (Brears

[1] Louisbourg type 34 (Barton 1981).

1971: 23). In fact similar wares with white or pale puff sandy fabrics, some soft red inclusions and glazed, often in yellow and sometimes in brown or green, were produced at various kilns in Surrey, Hampshire and perhaps even Dorset from 1500 to c. 1720 (Holling 1977, Haslam 1975, Barton 1981). Pipkins, porringers, bowls, drug jars, cups, colanders and dishes are typical vessel forms (Brears 1971: 24, Holling 1977: 62, Broady 1979) and have been found at several ports trading with Newfoundland, including Portsmouth, Southampton, Poole, Plymouth and Exeter (Barton 1981, Allan 1984, Broady 1979).

SPANISH HEAVY EARTHENWARE (= Mediterranean Buff CEW[1])

This heavy ware has been made near the Mediterranean since Roman times. In Early Modern times the Spanish manufactured globular storage jars as well as the traditional conical amphora in this ware near Seville in Andulasia (Williams 1984). These are often called "olive jars" although olive oil, wine, beer and even soap were also shipped in them. Consumers recycled these very durable containers and they do not necessarily indicate a Spanish presence nor even direct imports from Spain or consumption of olives etc. (Watkins 1973, Fairbanks 1974).

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1 Louisbourg type 13c (Barton 1981), Parks Canada CEW 1.1 and 15.1 (glazed).

The fabric ranges from buff through pink to brick red, often with a grey core. It is coarse, heterogeneous, granular and vesicular, with white and sometimes red and black inclusions. Vessels were wheel thrown and smoothed and are rilled inside, especially near the base. There is often the appearance of a thin white slip on the exterior. The ware is often unglazed but in this case can take on an even deep maroon resembling a thin interior glaze. True glazes are normally a thick bright or olive green, although yellow, orange and brown also occur. Vessels are rarely decorated; sometimes the potters wiped bands of slip on the exterior and impressed heraldic insignia are known.

Clark (1979d) and Fairbanks (1974) question Goggin's (1960) formal seriation and "Olive Jar" vessel form will therefore not be used as a chronological indicator here. Several of the vessels reported from underwater contexts along the English Shore (Gusset 1978, Carter 1982) are similar in form to those from Ferryland and this could reflect parallels of source or of contents rather than of period. The glazed version normally occurs in this almost spherical form, Goggin's Middle Style B. Such vessels occured in contexts of c. 1560, 1660 and 1700 at Exeter (Allan 1984: #1885, 2129, 2495) suggesting a temporal distribution right through the period of interest at Ferryland.

MERIDA EARTHENWARE

(=Micaceous Mediterranean CEW or Burnished Redware)

The kilns of Merida in Extramadura, southwestern Spain, produced this ware, probably from Roman times. There is petrological evidence that it was produced in a number of centres (Williams 1984) and something like it is still made in the neighbouring province of Alentajo in central Portugal. Vessels were already being imported into Britain by 1400 (Hurst 1977: 96). The fabric varies between red yellow and dark red, often with a grey core and is granular with some large white quartz and many smaller mica inclusions. Bodies are finely thrown, smoothed, burnished on the exterior, and bases often show deposits of mica sand (Clark 1979d: 47). Vessels are normally unslipped, although white or brick red slips occur. Glazing is not mentioned in the literature but at least three bottles from Ferryland are glazed with a green or green/yellow glaze grading to maroon where sparse. Merida vessels were often burnished when leather hard and were sometimes incised with hatching or rings. Vessel forms include pans, bowls, plates, pots, globular jars, jugs, cups, costrels and lamps (Broady 1979, Clark 1979d, Gusset 1978).

NORTH ITALIAN (Marbled and Sgraffito) SLIPWARE

These well finished wares were produced in several distinctive styles in the first half of the seventeenth

century in the north of Italy and perhaps at Antibes in France. It is thought that vessels excavated at Plymouth, one of which closely matches the example recovered from Ferryland Locus B, were exported from Pisa (Clark 1979c: 43). Production or at least export seems to have been restricted to bowls and carinated dishes. A number have been published from Plymouth (Gaskell-Brown 1979). The bright brick-red fabric is smooth, fine and hard, although chaulky. Bodies are thrown and smoothed, slightly rilled on the exterior and sometimes turned on the wheel. A creamy white slip was applied, sometimes marbled with a brown slip. Sgraffito work, in the form of turned bands and simple informal geometric motifs, was the other major decorative technique employed. Noël Hume thinks the sgraffito techique was most common c. 1625-1650 (personal communication 1986). The glaze is clear, showing a rich "Havana" brown on unslipped surfaces and cream where slipped. Applied yellow ochre and copper green tints were aimed vaguely at the repeated sgraffito motifs or used simply to vary marbling effects.

Tin Glaze Earthenwares

The technique of glazing finely textured but coloured earthenwares with an opaque, more or less white, tin-based glaze is one of the many Middle Eastern industrial advances brought to Europe through the Moorish occupation of Spain

(Caiger-Smith 1973). Production there dates back to the eleventh century. The Dutch were producing imitations of the Spanish wares by 1510 and it was Dutch immigrants that introduced the technique in turn to England in the latter half of the sixteenth century. The major English production centres near London did not come into operation until c. 1612 in the case of Southwark and c. 1676 in the case of Lambeth and it was not until c. 1620 that the English ware became stylistically differentiated from its prototype (Noël Hume 1977: 2-12, Bloice 1971).

Although the Tin Glaze wares produced in the various nations of Europe differ from one another to some degree they often resemble one another more than they differ. In general their fabrics are finely grained, not very highly fired and soft relative to most other earthenwares. The glaze is usually thick enough to have a discernable depth when examined in cross section. Most tin glazes are white or shades of white, while blue has traditionally predominated for decorative brush work, although magenta and some other colours occur occasionally. With the exception of Brown Faience, which the French developed in the eighteenth century, Tin Glaze vessels were not suitable for cooking but for food and beverage service as well as for pharmaceutical and hygenic use (Blanchette 1981). The traditional Tin Glaze vessel forms included dishes, plates,

saucers, bowls, basins, cups, jugs, small bottles, drug pots, tiles, wash basins and chamberpots, although these were not all produced in every tradition.

The whiteness of Tin Glaze seems to have had a growing appeal for Europeans in early modern times, perhaps as a substitute for the rare and expensive imported Chinese porcelains, the secrets of whose manufacture they still had not mastered[1]. Or perhaps white ware was valued simply as a ground for decoration in other colours. Whatever its most valued characteristics were, Tin Glaze and some other highly decorated wares in the seventeenth century began to be used as symbols as much as utensils by the middle class as well as the gentry in the Netherlands, England and their colonies (Deetz 1973, Brown 1973). The economic status of some of these users was comparable to that of Newfoundland Planters. The great age for Tin Glaze production, in England at any rate, was roughly 1650 to 1750 (Bloice 1968, Noël Hume 1977).

IBERIAN TIN GLAZE EARTHENWARE (=Majolica)

Iberian Tin Glaze was the stylistic model for early production in northern Europe but it has some distinguishing technical attributes. Fabrics are cream, buff or

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[1] Certain forms, for example flared cups and footed saucers, are actually Chinese (Genet 1980: 59).

beige with a sandy texture; bodies are rilled, even and normally rather heavy; glazes tend to cream, beige or grey beige tones and may be quite erratic in thickness (Genet 1980). Decoration is normally in the form of free, even hasty, brushwork predominantly in blue and sometimes also magenta. Motifs include dots, rings, bands, and stylized floral and geometrical designs.

SPANISH COPPER LUSTRE EARTHENWARE

This is an unusual variety of Iberian Tin Glaze which was also first produced in the Middle East but naturalized in Spain during the Middle Ages and exported as far as England from that period (Hurst 1977) until the seventeenth century (Gaskell-Brown 1979). Fabrics are buff or pink depending on provenance (Clark 1979d) with a buff or cream tin glaze brushed with swirls, rosettes, inscriptions and occasionally figures in metallic copper lustre and blue.

FRENCH TIN GLAZE EARTHENWARE(= Faience)

The French produced Tin Glazed wares from about 1500 at a number of centres (Genet 1980: 31ff). Fabrics may be grey, cream or buff but are often pink, salmon or even dark red brown. Fabric texture is chaulky, sometimes soft, and often delaminates. Bodies are lightly rilled, even and normally delicate. The thick glazes usually adhere well. Some are tinted light blue or light green, while blue and

occasionally other colours are sometimes used in decorative brush work with floral or geometrical motifs. In the eighteenth century brown faience, which was still white on the interior, became increasingly common (Blanchette 1981).

DUTCH TIN GLAZE EARTHENWARE (= Delftware)

The Dutch ware was produced from c. 1510 at several centres in the Netherlands, Delft among them. The buff or yellow beige fabrics are very soft, chaulky and absorptive, taking the heavy glaze well and consequently tending to craze and spall less than English wares. Genet suggests that pinholes in the glaze on the underside of vessels is typical of the Dutch ware (1980: 59), although this occurs with other tin glazes, certainly the Iberian. The Dutch glazes themselves, if not white, tend to grey or blue-grey and if so tinted may be matte. When white they are often brilliant because of an transparent overglaze (Genet 1980: 58). Brushed monochrome blue scrolls, flowers and foliage are typical on decorated vessels. At Exeter decorated Tin Glaze from the Netherlands predominates in early seventeenth century contexts while plain white London "delftwares" are more common later (Allan 1984: 126).

The difficulty of distinguishing English Tin Glaze from Dutch is notorious and may well often be "a tricky and often worthless task" in the sense that many of the potters

and painters working in England were Dutch, while the potters of the Netherlands often used English clays (Noël Hume 1977: 16). Vessels from Ferryland with ambiguous attributes are presumed here to be English. The English tradition is in any event the best represented of the Tin Glaze Earthenwares at Ferryland Locus B. Given the problematic trading relations of the Dutch at Newfoundland it would be useful to know to what extent Dutch wares occur and therefore it seems worthwhile to attempt to distinguish them from English examples.

ENGLISH TIN GLAZE EARTHENWARE (= Delftware, Galley Pots)

English fabrics are, like Dutch ones, sometimes cream, buff or even yellow but are also sometimes pink. They are chaulky in texture with some pebble inclusions and tend to be less soft than the Dutch fabrics. Glazes consequently are often crazed or spalled (Genet 1980: 49). Noël Hume notes that English Tin Glaze often has a purplish cast (personal communication 1986) and that dishes to c. 1670 were often fired simply with a lead or much thinned tin glaze au verso (1977: 1). When decorated, seventeenth century jugs are often sponged with manganese to create a distinctive mottled magenta effect which is sometimes called "Malling" style. Flatwares, if decorated, are usually covered with monochrome blue flowers, foliage, and birds and sometimes with human figures or inscriptions.

ITALIAN MONTELUPO TIN GLAZE EARTHENWARE

This distinctive ware was produced c. 1550-1650 in the Italian town of Montelupo between Florence and Pisa. It was exported to south west England as it occurs in small but not negligible quantities at both Plymouth and Exeter (Gaskell-Brown 1979, Allan 1984). The fabric is soft and chaulky, buff to pink with minute dark inclusions. Vessels are often decorated with magenta, yellow, orange and green geometric and linear motifs as well as the predominant blue floral and foliiform brushwork.

Stonewares and Porcelain

Both seventeenth and eighteenth century European stonewares are represented at Locus B. Although some of the latter may be intrusive, some later Westerwald wares will be described and discussed here because their stylistic evolution makes them particularly good chronological indicators for the period around 1700. All of the distinctively seventeenth century stoneware represented, including some Westerwald examples, are Rhenish but this does not therefore suggest direct trade contacts even with the Netherlands, let alone those regions further up the Rhine that later became part of Germany. There is documentary evidence that Rhenish stonewares were exported to the West Country down-the-line via London well into the seventeenth century, although direct importation grew rapidly

after 1650 (Allan 1983, 1984: 123). It is very likely that Newfoundland was in this case simply one step further down the line and that the Rhenish stonewares in use were supplied predominantly with other provisions from the outports of western England. The Rhenish wares so extensively used by Englishmen in the New and Old Worlds were almost exclusively mugs, jugs, drink pots and bottles (Noël Hume 1970: 276-285). The demand for these vessels can be associated with the growing consumption of hopped beer by the more affluent classes (Gusset 1980: 141).

The Rhenish wares are related, not only technically but genetically (Gusset 1980, Stephan 1983). Provenance of fragments is therefore not always evident, although given the likely nature of supply in the Newfoundland context the value of original provenance for these wares is limited. Datings would be of interest but stylistic variation, of Bellarmine masks for example, is not always as useful a chronological indicator as some have hoped (Holmes 1951, Thwaite 1973, Green 1979). The Cologne Kunstgewerbemuseum has, fortunately, published a catalogue of its vast collection (Reineking-von Bock 1971) so it is possible to date on the basis of comparison some of the Ferryland vessels. Small undecorated sherds have been categorized on the basis of fabric into several traditions each of which endured for many years (Gusset 1980, Allan 1984).

FRECHEN STYLE BROWN SALTGLAZE STONEWARE[1]

(= Rhenish Brown, Bellarmine or Bartmann Bottles)

The products of Cologne and Frechen kilns c.1550 - 1725 are similar and in fact potters migrated between the two centres (Clark 1979: 32). Similar wares were produced in the late seventeenth century at Fulham, near London (Oswald 1982: 20ff) and no attempt has been made to distinguish these here. The best known products of these kilns are the so-called Bellarmines, globular bottles decorated at the neck with bearded masks (Noël Hume 1970: 55-57) but what the Germans called krüge, i.e. jugs, mugs and drink pots, were produced as well as these kannen (Reineking-von Bock 1971, Oswald 1982).

The Frechen Style fabric is grey, the texture coarse and sometimes vesicular, with occasional quartz inclusions, the interior of vessels often fired to yellow, orange or pink hues. The exterior is salt glazed over a light to dark or red brown iron stain and is mottled, usually in an open pattern showing a good deal of fabric. Overall shape seems to be a better period indicator than the type of mask, later pear-shaped bottles replacing earlier globular squatter forms (Thwaites 1973, Gusset 1980: 165). The masks do evolve over the course of the seventeenth century and the early naturalistic masks, Holmes' (1951)

[1] Parks Canada CS 11.1 .

types I,II and III, are replaced by hourglass mouths, volute beards and otherwise conventionalized visages (Thwaites 1973, Gusset 1980: 149). At the same time cordons at the bottle mouth multiply (Noël Hume 1970: 57).

WESTERWALD GREY SALT GLAZE STONEWARE[1]

This ware was produced from about 1600 on in the Westerwald towns of Höhr and Grenzhausen in at least two distinguishable styles (Gusset 1980). The fabric is a light grey with a blue-grey surface, vesicular but finer and more vitrified than Brown Frechen ware. Bodies are well thrown, more or less delicate, with bands or cordons often turned on the wheel. Applied impressed floral, foliiform, heraldic and other motifs are common on earlier products; later incized and rouletted decoration becomes more common (Gusset 1980: 152). From c. 1690 the Latin initials of British monarchs, eg. "WR", "AR", "GR", are applied to some items intended for export to England and her colonies (Gusset 1980: 153) and these, of course, are useful for dating. A cobalt blue enamel is almost always used to highlight the relief decorations and after c. 1660 a manganese magenta gradually comes into fashion for a while as well. Vessels are normally finished with an even salt glaze, although this can be irregular or matte. Interiors are often matte pink or orange brown.

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[1] Parks Canada CS 12.1 .

NORMANDY BROWN STONEWARE[1]

It is not clear when this ware evolved but it seems possible that its history is related to that of the Rhenish wares and like them evolved by stages from a local earthenware (Stephan 1983). Normandy Brown Stoneware was produced at several kilns in Lower Normandy and has been found in seventeenth or eighteenth century contexts at Quebec City (Décarie-Audet 1979), Louisbourg (Lynch 1968), Red Bay in Labrador and at Port au Choix on the Great Northern Peninsula of Newfoundland (Pope 1985). The fabric is smooth, shiny, well vitrified and light brown or else a dark almost chocolate, red brown with yellow or buff inclusions. Surfaces are often sandy and may be brown or dark blue grey and even black. Glaze when present is salt (Décarie-Audet 1979: 22). Body character ranges widely from very delicate to very heavy. Cooking pots, storage jars and bottles are typical forms.

CHINESE HARD PASTE PORCELAIN (= Carrack Porcelain)

The Chinese have produced porcelain since about 900 A.D. The delicate and finely finished wares of the Wan-Li period, c.1590-1620 were highly regarded by Europeans and imported in considerable quantities in Portuguese carracks. Hard Paste Porcelain is typically white, although tints in the glaze may show up in footring crevices. The texture of

[1] Parks Canada CS 2.1 .

the fabric is glassy, as is the glaze. Wan-Li products are typically brush decorated in underglaze blue with floral, foliiform and cervine designs (Clark 1979a). Such carrack wares occur in archaeological contexts of the early seventeenth century at Plymouth and Exeter (Gaskell-Brown 1979, Allan 1984).

These then are the wares so far identified from seventeenth century contexts at Locus B. Most of the vessels recovered can be assigned to one of these wares. This would not be, however, an adequate identification for some of the analytic purposes I wish to pursue here. A typology of vessel forms is necessary in order to to catalogue the individual ceramic artifacts comprehensively and the definition of such a typology is the aim of the following chapter.

CHAPTER 7

VESSEL FORMS

Introduction: Model Vessel Typologies

While there is a general consensus in the literature on nomenclature, or at least synonymy, of most early modern Western European wares, there is no comparable consensus about vessel forms. Terminologies abound, which would be a minor problem if this did not obscure typological inconsistencies. Not that typologies must be consistent: it may not be possible to express concisely formal variation in a particular context using a typology derived elsewhere. This kind of inconsistency is worth some examination, for it may increase our understanding, for example of functional variability. Understanding is not furthered, however, by the use of several terms for the same form in culturally comparable contexts or the uncritical use of one term for different forms.

An understandable reaction to this kind of problem, outside post-mediaeval historical archaeology, has been an interest in the definition of artifact types through the statistical manipulation of attribute data (Spaulding 1953, Tyldesley *et al.* 1985). This is, however, more convincing as an approach to explanation or hypothesis testing than as a response to the challenge of descriptive typology; since

in reporting what has been unearthed it is desirable to speak a shared or at least known tongue. Such a descriptive vocabulary is not, however, part of natural language but in principle involves arbitrary denotation, whether the lexicon is defined or left to be pieced together by the reader (Gardin 1980: 47ff).

A number of interesting methodological proposals are on the table for the descriptive analysis of a wide range of ceramic forms (Gardin 1967, Ericson and Stickel 1973, Balfet et al. 1983). The common sense at the core of these carefully thought-out systems means that they are, essentially, consistent. They are consistent too in accepting that unambiguous description requires the rationalization of lexicons with explicit rules, metrical or otherwise, for differentiation between forms (Gardin 1967: 17).

It was in such a spirit that a group of specialists in colonial American historical archaeology recently proposed a vessel typology for early modern ceramics in the Chesapeake region . The Potomac Typological System (Beaudry et al. 1983, henceforth in this chapter POTS) is of relevance here -- generally because it is an attempt to come to terms with functional variability, particularly because of the shared cultural heritage of the colonists of Newfoundland and the Chesapeake. Vessel forms occuring at

Ferryland are, by and large, represented in POTS, which has the distinct advantage that its analytic boundaries are deliberately based on semantic distinctions made by original users of such artifacts.

It is tempting to make adjustments to the nomenclature of POTS, particularly to make it more consistent with the usage of post-mediaeval archaeologists working in southwest England. An archaeologist working on seventeenth century ceramics in Newfoundland is as dependent on their publications as Newfoundland planters once were on English potteries. Since the English archaeologists are by no means consistent in their terminologies it seems, however, prudent to accept the Chesapeake nomenclature as a lingua franca, extending it where necessary.

POTS will be amended here in three ways. I will add definitions for two forms which were not distinguished in the original typology. Second, in reviewing the POTS definitions of vessel forms, I propose to cross reference from relevant published catalogues terms that that I take to be synonymous. Finally I will apply, in several ambiguous cases, the rigorous metrical criteria developed Pour la Normalisation de la Description des Poteries by the Musée de l'Homme in Paris (Balfet et al. 1983, henceforth Poteries). One of the authors of POTS, Henry Miller, has

expressed some reservations about the further application of metrical criteria (personal communication 1986). He suggests that all precise criteria should be based on analysis of a large and wide-ranging sample and he worries about the cross-cultural applicability of such criteria. These are reasonable concerns but I still think some of the French researchers' principles can be usefully applied.

The Musée de l'Homme system might be considered as a framework within which particular vessel typologies could be supported and, in fact, POTS is generally consistent with this framework. Poteries, unlike POTS, was not designed with one culture-area in mind; the metrical criteria proposed are an attempt to standardize the description of ceramics from the various historic culture areas unified politically only in recent centuries as France. The variability assimilated by the system is in the order of English/French variability in Early Modern times. If the diameter/ height ratios of seventeenth century dishes were radically different in the world dominated by Francophones than in the world dominated by Anglophones this would be worth observing. We are more likely to make such an observation if we have defined dishes as having a diameter/ height ratio of >5:1 than if we have defined them simply as "flat". By pursuing the course of Gallic rationality here we can de-emphasize

imputed function as a defining characteristic for various forms. This can only make POTS, or an adaptation of it, more applicable in the field and lab.

The following definitions of vessel forms identified at Ferryland are generally slight modifications of those proposed in POTS. They are organized, by their imputed primary function, into five classes: kitchen and dairy, cooking, food service, beverage service and hygiene. The typology is illustrated in Figure 10.

Kitchen and Dairy

POT: A large, cylindrical or slightly convex vessel, taller than wide, i.e. with a diameter/ height ratio of less than 1:1 (POTS: 36), = BUTTER POT and JAR, CROCK, STEAN, or STORAGE JAR (Grant 1983). Pots were used for maturing and storage of foods, especially fats, and pots in several wares were designated by name as butter containers (Grant 1983: 54, Décarie-Audet 1979: 29). A variety of foods including fish, fowl and meats were also potted for storage under a layer of fat (C.A. Wilson 1984: 96, Grant 1983: 54). Pots were no doubt also used for cooking. They were widely produced in durable earthenwares, among them South West Micaceous, South Somerset, South West Sandy, North Devon Gravel Temper, North Devon Smooth and

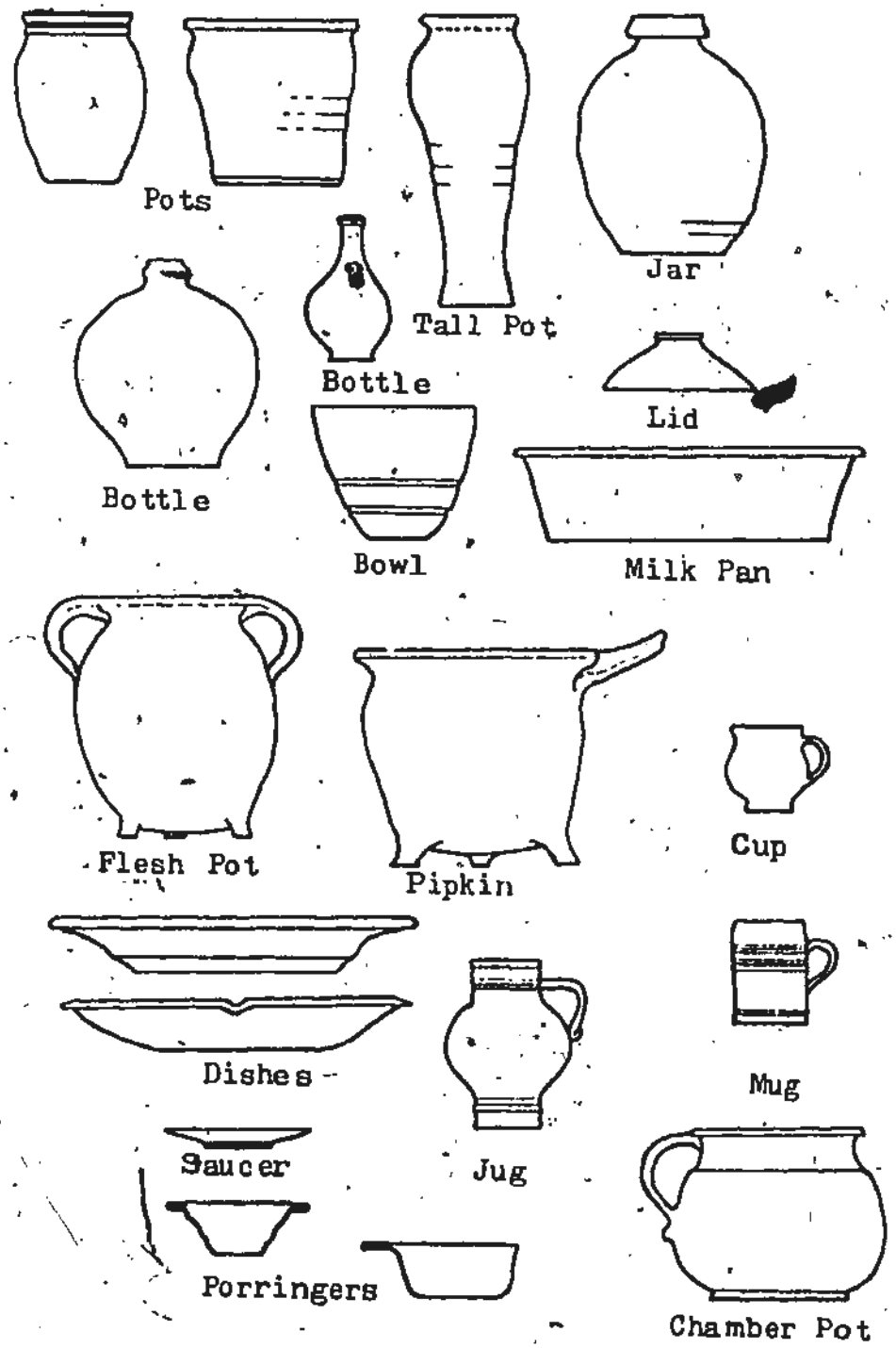

Figure 10. Vessel form typology, Ferryland Locus B. Fragments of pans, plates and drink pots are too fragmentary to reconstruct. Scale 1:8 .

Merida, as well as in Normandy Brown and London Frechen Style Brown Coarse Stonewares.

TALL POT: A concavo-convex vessel of baluster form, with a flared mouth and diameter/ height ratio of about 0.5:1 = TALL JAR, PILCHARD POT, BALUSTER JAR (Grant 1983). These pots, which are distinguished here from pots in general because they are a common form at Ferryland, were used for food storage and shipping. As one synonym indicates, they were appropriate for potting of fish (Grant 1983: 98). The form was certainly efficient for potting since a relatively small amount of fat in the constricted neck would seal a large volume of food in the full height of the pot below. Similar vessels were also produced in South West Sandy Earthenware (Allan 1984: 153) and London Frechen Style Brown Stoneware (Oswald 1982) as well as North Devon Smooth and Calcareous Temper Earthenware.

JAR: A large heavy-bodied vessel, taller than wide, i.e. with a diameter/height ratio of less than 1:1 , shouldered, with a constricted neck having an opening/ maximum diameter ratio of 1:3 to 1:2 and a heavy rounded lip (POTS: 36, Poteries: 16), = OLIVE JAR (Goggin 1960), JARRE (Poteries). The primary use of these vessels was for shipment of olives, olive oil and wine but they were commonly re-used as storage vessels for water, beer, etc.

(Fairbanks 1974). This is a common Iberian CEW form and they occur in Spanish Heavy and Merida Earthenware.

LID: A more or less flat or slightly curved even disk, often with an ogee rim. Lids were used for closing pots or jars. They are reported only in small numbers from archaeological contexts, perhaps because it is difficult to distinguish a fragmentary example from the flared base of a hollow vessel (Gardin 1967: 14). Examples have been recognized in Spanish Heavy and South Somerset as well as North Devon Gravel Temper Earthenwares (Fairbanks 1974, Allan 1984, Grant 1983: 54).

BOWL: An open vessel with convex sides, a plain or everted rim, no footring, and a diameter/height ratio of 1 - 2.5 (POTS: 33, Poteries: 13), = PANCHEON or BASIN (Grant 1983) or BOL, JATTE, BASSIN (Poteries). Bowls were used for food storage and preparation. They are normally produced in coarse earthenwares, including South West Micaceous, South West Sandy, North Devon Gravel Temper, Southern White but also in Tin Glazed wares.

MILK PAN: A large more or less trunconical vessel, 25 cm or more in diameter (POTS: 35, Poteries: 11), = PANCHEON, PLAT CREUX (Poteries). Such vessels could have had a variety of functions besides cooling dairy products, for

example washing or even cooking. Milk pans were produced in a number of earthenwares including Merida, South West Micaceous, South Somerset, South West Sandy and North Devon Gravel Temper.

Cooking

PIPKIN: A small, bulbous, handled, earthenware cooking pot, often with a rod handle and tripod legs (POTS: 34) = POSNETT or SKILLET (Allan 1984). These were manufactured in various earthenwares, including South Somerset, South West Sandy, Southern White and North Devon Gravel Temper.

FLESH POT: A large cooking vessel with two ears and, sometimes, three feet (POTS: 34), = CROCK (Grant 1983). This was normally a metal form but can occur in earthenware, in particular, of the wares dealt with here, North Devon Gravel Temper and South West Sandy Earthenwares.

PAN: A more or less trunconical vessel, often used for cooking, less than 25 cm in diameter (POTS: 35), = PUDDING PAN, PASTRY PAN, PATTY PAN and BOWL, PANCHEON (Grant 1983). Compare with ECUELLE and COUPELLE, defined in Poteries as having diameter/height ratios of 1:2.5 to 1:5 . Pans occur in various coarse earthenwares, among them South West Micaceous, South Somerset, South West Sandy, North Devon Gravel Temper, and Southern White.

Food Service

DISH: A large, shallow, serving vessel with a diameter/ height ratio of 5:1 or more and a diameter of a least 25 cm (POTS: 33, Poteries: 10), = PLATTER, CHARGER or PLAT (Poteries). Dishes occur in many wares, among them South West Micaceous, South Somerset, North Devon Smooth, Staffordshire and Bristol Slipware, North Italian Slipware and various Tin Glazed wares.

PLATE: A shallow medium-sized serving vessel, with a diameter/ height ratio of at least 5:1 , a diameter of 18 to 25 cm (POTS: 33) = ASSIETTE (Poteries: 10). Plates might have been more likely to be used for individual servings than the larger dishes. They were produced in earthenwares such as Merida, South West Micaceous, South Somerset, North Devon Smooth, Staffordshire and Bristol Slipwares, North Italian Slipwares and the various Tin Glazed traditions and Chinese Porcelain.

SAUCER: A small, shallow, serving vessel, with a diameter/ height ratio of 5 or more, less than 18 cm in diameter (POTS: 34). Compare with PETITE ASSIETTE; defined as having a maximum 12 cm diameter (Poteries: 10). Saucers were normally used for serving foods that accompanied some other dish, as the name suggests, although eating from them was always possible. They would not have been used

under cups in the seventeenth century. Saucers were produced in several decorative wares, including South Somerset, North Devon Smooth, English, Dutch and French Tin Glaze Earthenwares, as well as Chinese Porcelain.

PORRINGER: A small vessel, less than 18cm diameter, with at least one and sometimes two handles, usually somewhat hemispherical in shape, shallower than a cup or pot, i.e. with a diameter/height ratio of 1 or more (POTS: 32), = PODGER or NAME UNCERTAIN (Grant 1983). Porringers were used for serving semi-solid foods, such as potage, stew, soup or porridge. Porringers often occur in decorated earthenwares, among them South Somerset, Southern White, North Devon Smooth, Staffordshire and Bristol Slipwares, and various Tin Glazed wares.

Beverage Service

CUP: A small, handled, drinking vessel with a capacity of less than 0.5 litre (1 pint) (POTS: 29). The liquid capacity of cups made them suitable for individual servings. They were produced in many earthenwares, often decorative, including Merida, South Somerset, Southern White, North Devon Smooth, Staffordshire and Bristol Slipwares, and English and French Tin Glazed wares.

MUG: A single-handled, straight-sided drinking vessel, taller than wide, i.e. with a diameter/ height ratio less than 1:1, ranging in capacity from 0.1 litre (1 gill) to 2 litres or more (POTS: 30), = TANKARD, KRUG (Reineking-von Bock 1971). The larger mugs would have been suitable for communal drinking. They were widely produced, especially in wares that provided durability or decorative qualities such as Metropolitan Slipwares, North Devon Gravel Temper, North Devon Smooth, Midlands Purple, Staffordshire and Bristol Slipwares and English Tin Glazed Earthewares as well as the Rhenish Stonewares.

DRINK POT: A one or multi-handled vessel, usually bulbous, sometimes cylindrical, with a capacity in excess of 0.5 litres (1 pint) and as much as 2 litres or more. If they are not multi-handled they are wider than tall, i.e. with a diameter/ height ratio of at least 1 (POTS: 30), = KRUG (Reineking-von Bock 1971). They were appropriate for communal drinking and were produced in several often decorated traditions, including South Somerset, Southern White, North Devon Smooth, and Staffordshire and Bristol Slipware Earthenwares as well as Rhenish Stonewares.

JUG: A handled, bulbous vessel with a cylindrical neck rising from a pronounced shoulder, sometimes with a gutter (POTS: 30), = KRUG (Reineking-von Bock 1971). Jugs range

in size from small drinking vessels to large vessels suitable for beverage service or communal drinking. They were produced in a variety of wares, some notable for their sturdiness, others for their decorative qualities, among them Merida, South West Micaceous, South West Sandy, South Somerset and North Devon Smooth Earthenwares, several Tin Glaze traditions including notably French, English and Italian Montelupo, as well as Rhenish Stonewares.

BOTTLE: A bulbous vessel with a narrow neck, having an opening less than 1/3 the maximum diameter, without a gutter or spout, sometimes with a handle (Pots: 31, Poteries: 18), = KANNE (Reineking-von Bock 1971). Bottles were used for shipment, storage and service of liquids. Bottles were produced in durable earthenwares, like Merida and South West Sandy, as well as in Rhenish Stonewares.

Hygiene

CHAMBER POT: A large, convex-sided, often bulbous, handled pot with a sturdy everted rim. These portable receptacles for human wastes, "the eventual repository of the contents of all of the above" (POTS: 37) were just coming into more widespread use in the seventeenth century (Amis 1968) probably as a result of the increasing sense of privacy attached to bodily functions (Elias 1978: 129ff). Even in the late seventeenth century such delicacy was a genteel

trait (Elias 1978: 136). Chamberpots had existed for centuries as aids for invalids and were produced in such durable glazed wares as South Somerset, South West Sandy, North Devon Gravel Temper, North Devon Smooth, Staffordshire and Bristol Slipped and English Tin Glazed Earthenwares as well as Grey Westerwald Salt Glazed Stoneware.

The terminology proposed above includes all forms of vessels identified in the collection from seventeenth century contexts at Locus B in Ferryland. Certain other vessel forms will be mentioned below in discussion of comparative material. Where the nomenclature is not self-explanatory, references will be given to an appropriate definition. Together with the descriptions of wares offered in Chapter 6 above the vessel form typology makes it possible to offer a comprehensive catalogue of the assemblage in the following chapter.

CHAPTER 8

CATALOGUE OF VESSELS FROM SEVENTEENTH CENTURY CONTEXTS

Methodology

The catalogue presented here includes every distinguishable vessel excavated to date from seventeenth century context at Locus B, excluding only a few obviously intrusive sherds of eighteenth and nineteenth century stonewares and refined white earthenwares. This attempt at exhaustive compilation is offered as a way of narrowing the interpretive gap between the use of ceramics in the past and sherd counts or illustrations of particularly complete vessels. As the authors of POTS have pointed out, archaeological data are often cast in one of these forms, despite the fact that their interpretive implications are limited:

> It is difficult to imagine why one vessel which has by chance survived the passage of time relatively intact should possess more behavioral significance than one represented by only a few sherds. The relevance of sherd counts to the explication of past behavior is equally obscure. One needs to remember the obvious: the people whom archaeologists study worked with, ate from and drank from whole vessels, not the sherds the vessels would eventually become [Beaudry et al. 1983: 20].

Simple sherd counts may have some value in enabling us to quantify the proportions of different wares present at a site but vessel counts are equally quantifiable. The recent publication of Medieval and Post-Medieval Finds from Exeter... uses both approaches and one can note that

the percentage distribution of pottery by wares using sherd counts differs somewhat from that based on minimum number of vessels (Allan 1984: 114). The analysis of vessel form variation (eg. Allan 1984: 100) requires, of course, a count of vessels rather than sherds.

Illustrations of complete, typical or even spectacular vessels have an obvious comparative value and may also acquaint us with currents of taste while giving us a greater understanding of the pleasures earlier peoples took in their material culture (No 1 Hume 1977: 14). In the present case there is neither time nor space to illustrate every vessel but only such a representative selection. This kind of selective illustration is, I would argue, most likely to be useful in the context of a complete catalogue. Furthermore appropriate reconstruction of the "best" vessels is most likely to be achieved by attending carefully to the range of variability evident in less picturesque examples.

What counts as a distinguishable vessel is somewhat dependent on methodology. In general this researcher is a "lumper" rather than a "splitter" and sherds were catalogued together where this was plausible on the basis of fabric, glaze and an identifiable vessel form. In particular the researcher adopted the following procedures.

1. During cleaning and cataloguing when mends were discerned they were made.

2. After cataloguing sherds were sorted by provenience, with those from the same stratum in an arrangement isomorphic with the excavation.

3. Within each square sherds were sorted by ware.

4. Mends were sought within each square.

5. Mends were sought within adjacent squares.

6. As vessels took shape matches with respect to fabric, glaze and form were sought among remaining sherds.

7. Measurements of rim, mid and/or base diameter to the nearest centimeter were made with a transparent template marked with concentric rings at 0.5 cm intervals. "Mid" diameter does not indicate any particular region of the vessel other than excluding rim and base. It was often taken at a carination or neck.

8. Several measurements of the vessel wall were made to the nearest millimeter with a micrometer to establish the range of thickness, not including rims or bases.

9. All measurements were recorded with a description of slip, glaze, fabric, body and decoration, references to comparable published vessels, a count of the number of unmended pieces where this did not exceed 100, a description of the condition of the vessel and provenience information. In this context "sherd" means any piece, "fragment" is taken to mean a sherd or group of mended sherds that reveals a significant part of the vessel profile. For a completed example of the "Ferryland Ceramic Attifact" form see Appendix 1.

10. The procedure was repeated for each stratum.

11. Cross mends and close matches in fabric, glaze and form were sought among other seventeenth century strata and where these were observed they were noted while the descriptions were collated as relating to one distinguishable vessel.

12. Cross mends and close matches in fabric, glaze and form between the vessels distinguished and sherds from Stratum 1 were sought and some sherds from this disturbed "plow zone" were thus included in the compilation. In several cases sherds from Stratum 1 helped greatly to define the form of particular vessels.

The vessels are presented here by ware, grouped into Coarse Earthenwares (CEW), Tin Glazed Earthenwares (TIN) and Coarse Stonewares (CSW). The English wares precede the others and each group is organized into rough order of frequency of occurrence. Within each ware vessels are listed alphabetically; each group of similar vessels begins with the more complete examples. The author's illustrations are presented as far as possible with the relevant text. Figure 11 is a key to the symbolic representation of glaze colour.

Earthenwares

NORTH DEVON GRAVEL TEMPER CEW

BOWL (PAN?)

1. 1450 - 1750 Stratum 2b Feature 5

Rim fragment, light pink grey slipl, honey brown glaze, groove under rim. Cf. Fairclough 1979 #305. Mid 18 cm. 6 mm thick.

FLESH POTS (Figure 12.)

2. 1450 - 1750 Strata 2b,3b Feature 1a

19 sherds, rim and eared handle fragments, brownish pink slip, iridescent light brown glaze, brick red/grey fabric,

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1 Slip and glaze for this ware are interior unless described as "spilled".

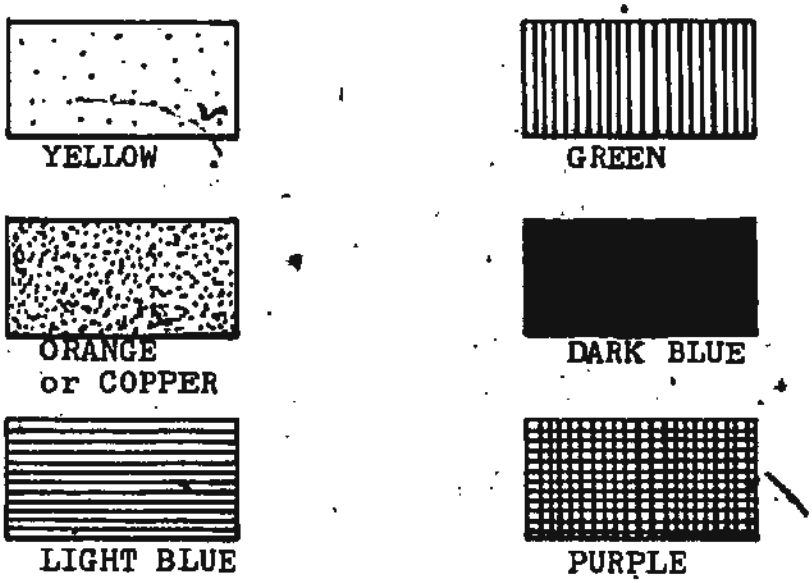
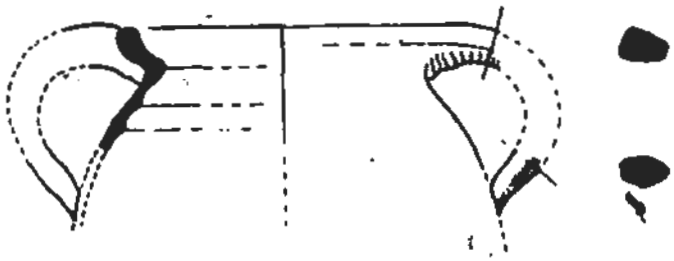
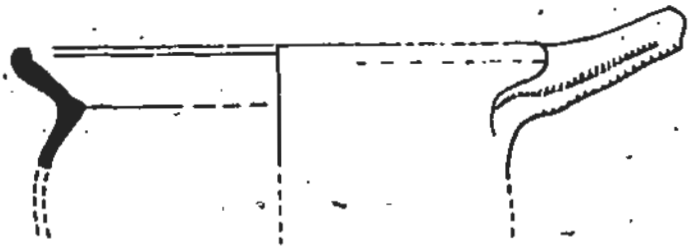


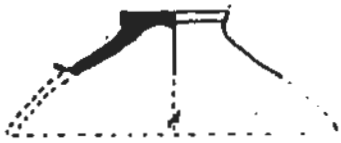
Figure 11. Key to colour symbols used in vessel illustrations, unless otherwise noted.



2. Flesh Pot



11. Pipkin



5. Lid

Figure 12. North Devon Gravel Temper Vessels. Scale 1:4 .

fired maroon, careful rim form[1], sooted. Cf. Fairclough 1979 #315. Rim 17 cm. Mid 20 cm. 5 - 8 mm thick.

3. 1450 - 1750 Strata 1,2f,3b Feature 1
18 sherds, rim and body fragments, pulled handle, beige pink slip, mottled green glaze, spilled. Cf. Fairclough 1979 #315. Rim 16 cm. Mid 13 cm. 5 - 6 mm thick.

4. 1450 - 1750 Stratum 2b
2 fragments, rim and eared handle, off-white slip, honey yellow glaze, spilled, brick red/grey/brick red fabric. Cf. Fairclough 1979 rim #321, handle #322. Rim 25 cm. Mid 20 cm. 6 - 8 mm thick.

LID (Figure 12.)

5. 1450 - 1750 Stratum 2b
1 fragment with knob, brown pink slip, pink/grey/pink fabric. Cf. CgAf-2: 13 (Ferryland Pool), Allan 1984 #2340 (not North Devon). Base 5 cm. 9 - 11 mm thick.

MILK PAN

6. 1450 - 1750 Stratum 2b
1 rim sherd, simple form. Cf. Fairclough 1979 #338. Rim 40 cm. 10 mm thick.

---

[1] "Careful" here indicates that the rim was carefully thrown.

7. 1450 - 1750 Stratum 2a

1 uneven body sherd, beige slip, honey brown glaze. Cf. Gaskell-Brown 1979 #47. Mid 28 cm. 5 - 9 mm thick.

PIPKINS (Figure 12.)

8. 1450 - 1750 Strata 2b,2d,2f,3a Features 1,4,5

48 sherds, handle and rim fragment, off-white slip, brown/ orange/ green glaze, careful grooved rim. Cf. Fairclough 1979 #315. Rim 25 cm. Mid 21 cm. Base 20 cm. 5 - 7 mm thick.

9. 1450 - 1750 Strata 1,2f,3b Feature 1

7 sherds, base, rim and handle fragments, dark brown glaze, brown pink fabric, sooted and (also?) burned, careful rim and pulled handle. Cf. Grant 1983 type 16, Fairclough 1979 #322. Rim 18 cm. Mid 13 cm. 6 mm thick.

10. 1450 - 1750 Stratum 2b

5 major sherds include body fragment, many spalls, green/ yellow brown interior glaze, body erratic. Cf. Grant 1983 type 4. Related to #33? Mid 19 cm. 5 mm thick.

11. 1450 - 1750 Stratum 2b Feature 5

4 rim and body sherds, rim fragment and pulled handle,

beige pink slip, honey brown/ green glaze, careful rim form. Cf. Fairclough 1979 #315. Related to #15? Rim 28 cm. Mid 20 cm. 6 - 7 mm thick.

12. 1450 - 1750 Stratum 2b
3 rim sherds, pink beige slip, brown glaze, sooted (or burned ?); careful rim from. Cf. rim Fairclough 1979 #321. Rim 15 cm. 7 - 8 mm thick.

13. 1450 - 1750 Stratum 2b
2 rim sherds, pink beige slip, bevel on rim (for lid?) Cf. Fairclough 1979 #294. Rim 15 cm.

14. 1450 - 1750 Stratum 2b
1 rim sherd, dirty pink slip. Cf. Fairclough 1979 #337. Rim 20 cm. 7 mm thick.

15. 1450 - 1750 Stratum 2b
1 rim sherd, orange/green glaze, pink fabric, careful form, sooted. Cf. Fairclough 1979 #318. Rim 24 cm. Mid 17 cm. 5 - 8 mm thick.

16. 1450 - 1750 Stratum 3
1 rim sherd, careful form. Cf. Fairclough 1979 #318. Rim 27 cm. 10 - 11 mm thick.

17. 1450 - 1750 Stratum 3b Feature 1a

1 curvaceous rim sherd, buff grey slip, careful form. Rim 11 cm. Mid 8 cm. 6 - 7 mm thick.

18. 1450 - 1750 Stratum 2b
1 rim fragment, pink beige slip, green/ black glaze, careful form. Cf. Fairclough 1979 #321. Rim 15 cm. 5 - 6 mm thick.

19. 1450 - 1750 Stratum 2b
1 pulled handle fragment, light grey slip. Cf. Fairclough 1979 #315.

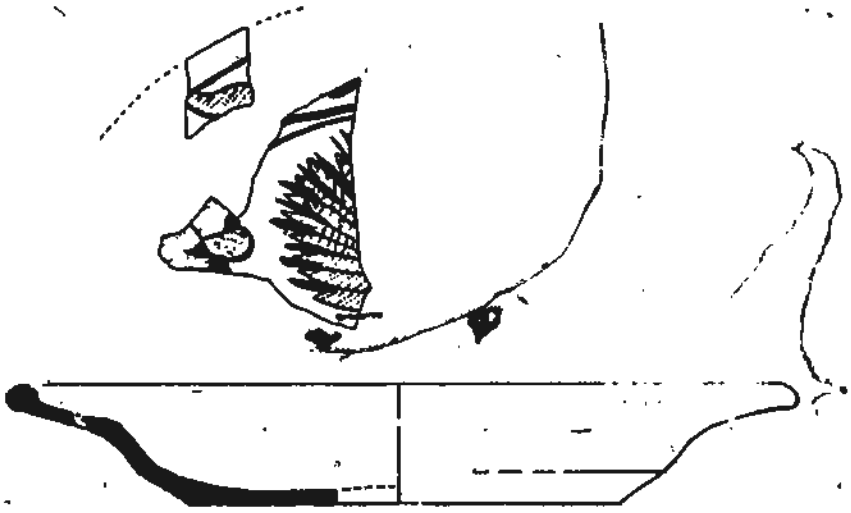
NORTH DEVON SMOOTH FABRIC CEW

CUP (Figure 13.)

20. 1630 - 1650 Strata 2b,3 Feature 5
9 sherds, some burned, 1 rim, white slip, iridescent honey yellow brown glaze, grey fabric, quartz inclusions, wide and moderate "blunt pencil" sgraffito decoration. Cf. Gaskell-Brown 1979 #35, Watkins 1960 Figure 1 (left), Grant 1983 type 12b. Rim 9 cm. Mid 10 cm. 4 - 7 mm thick.

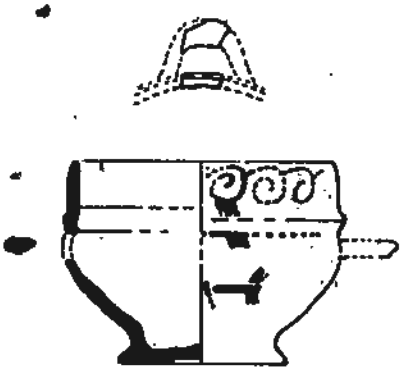
DISHES (Figure 13.)

21. 1640 - 1700 Stratum 2b Feature 5?
14 rim, base and body sherds and fragments, pouring gutter, white interior slip, honey yellow brown glaze, red/ grey



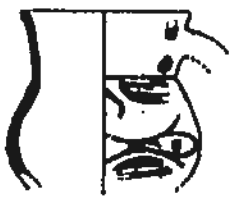
22. Dish

21. Guttered Dish



30. Porringer

27. Jug



20. Cup

Figure 13. North Devon Smooth Sgrafitto-decorated Vessels. Scale 1:4.

fabric, moderate body[1], sgraffito bands and rouletted dots in "pencil line" floral motif. Cf. rim Fairclough 1979 #345, sgraffito decoration with Watkins 1960: 33, lower left. Rim 42 cm. Mid 22 cm. Base 18 cm. 6 - 8 mm thick.

22. 1640 - 1700 Stratum 2b Feature 1,5?
11 sherds, base fragment and rim sherd, white interior slip, honey yellow brown interior glaze, extensively spilled on exterior, evenly slipped and fired, fabric uniform brick red, "pencil line" sgraffito, palmate floral motifs and rouletted dots. Cf. a Jamestown Museum display dish, noting heavy rim, even dots, palmate flowers. Rim 42 cm. Mid 36 cm. Base 23 cm. 7 - 9 mm thick.

23. 1640 - 1700 Strata 1,2b Feature 5?
7 heavy rim, body, base sherds and fragments, white interior slip, honey yellow brown interior glaze, uniform dark grey fabric, "pencil" sgraffito, some bands turned on wheel. Cf. tulip motif in Watkins 1960: 32 (top right). Rim 34 cm. Mid 27 cm. Base 22 cm. 6 - 7 mm thick.

24. 1640 - 1700 Stratum 2b
1 small body sherd, possibly a plate, white interior slip,

---

1 "Moderate" indicates the vessel is moderately delicate.

dark brown interior glaze, brick red fabric, sgraffito decoration, rouletted parallel dashes. 10 mm thick.

DRINK POT

25. 1600 - 1700 Stratum 3b Feature 1

1 base fragment, dirty cream exterior slip, mottled green/ brown exterior glaze, fine orange/ grey/ orange fabric, red brown on interior, delicate, basal flange scraped on wheel. Cf. Grant 1983 type 12, base of Gaskell-Brown 1979 #35, Watkins 1960 Figure 1 . Mid 8 cm. Base 6 cm. 3 - 4 mm thick.

JUGS (Figure 14.)

26. 1640 - 1750 Strata 1,2b,3 Feature 5

7 sherds, 2 base fragments and handle, unslipped, shiny green/ orange interior glaze, spilled, unusual base. Could be South Somerset. Cf. Grant 1983 type 2a. Mid 9 cm. Base 7 cm. 5 - 7 mm thick.

27. 1630 - 1700 Strata 1,2c,2f,3b Feature 1.

4 sherds, rim and pulled handle fragment, white slip, thick amber yellow/green iridescent glaze, grey fabric, quartz inclusions, sgraffito decoration in deep, parallel, stopped, lines. Cf. Grant 1983 type 2b, Watkins 1960 Figure 13 (left). Rim 6 cm. 5 - 6 mm thick.

PAN (BOWL?)

28. 1600 - 1750 Stratum 2b

1 rim sherd, buff slip, manufacture even and careful. Cf. Fairclough 1979 #302, 303. Rim 12 cm.

PITCHER ?

29. 1670 - 1720 Strata 1,2e Feature 1

2 rim and body sherds, white slip, brown/green glaze, fine red grey fabric, curved body sherd a pitcher gutter (?). Cf. Grant 1983 type 2a ?. Rim 7 cm. 4 mm thick.

PORRINGER (Figure 13.)

30. 1630 - 1650 Stratum 2b

3 sherds, handle and base fragment, white slip, iridescent honey yellow brown glaze, grey fabric, a few quartz inclusions, wide and medium "pencil point" sgraffito, simple repeated spiral motif. Cf. form Grant 1983 type 5 and Plate 6 (from Jamestown), spiral motif Saphire 18M-40. Rim 14 cm. Mid 15 cm. Base 9 cm. 5 - 7 mm thick.

31. 1600 - 1720 Strata 1,2b Feature 1

49 sherds, (porringer ?), body fragment, 3 rim sherds, white interior slip, brushed or spilled on exterior, honey brown/chocolate glaze, light orange fabric, much quartz, almost Gravel Temper but delicate. Cf. Gaskell-Brown 1979 #58. Rim 10 cm. Mid 11 cm. 3 - 5 mm thick.

32. 1600 - 1720 Stratum 2b

1 body sherd, (porringer?), thin white interior slip, exterior slip, yellow exterior glaze, spalled silvery green yellow interior glaze, vesicular chaulky brick red fabric, evenly thrown, deep annular grooves on exterior. Cf. Grant 1983 type 9. Mid 13 cm. 6 mm thick.

POT (Figure 14.)

33. 1550 - 1720 Stratum 2b

1 base fragment, light grey fabric, iridescent honey yellow glaze, sooted. Cf. Fairclough 1979 #306. Base 7 cm. 5 - 7 mm thick.

TALL POTS (Figure 14.)

34. 1550 - 1720 Stratum 2b

Over 100 sherds include 2 rim fragments, white slip, light green/honey brown glaze[1], spilled, orange beige/grey fabric, rim careful, body moderate. Cf. rim Fairclough 1979 # 321. Rim 12 cm. Mid 14 cm. 4 - 5 mm thick.

35. 1550 - 1720 Strata 2b,3

Many sherds, rim fragment, white slip, honey yellow/amber brown glaze, careful delicate rim, over- or refired. Cf. Fairclough 1979 #321. Rim 12 cm. Mid 9 cm. 4-5 mm thick.

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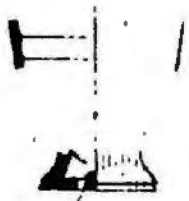
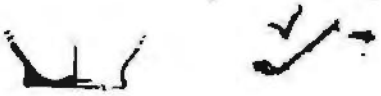
[1] Slips and glazes on North Devon Smooth pots are on the interior unless otherwise noted.

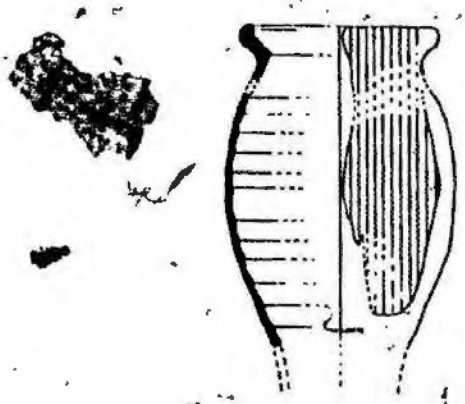


26. Jug

33. Pot



25. Drink Pot



40. Tall Pot

41. Tall Pot

Figure 14. North Devon Smooth Vessels. Scale 1:4 .

36. 1550 - 1720 Strata 1,2c,2f,3c Feature 1
57 sherds, rim, base and body fragments, spalling yellow green/brown glaze, pink/grey fabric, rilled erratic heavy body. Cf. Grant 1983 type 14, rim Allan 1984 #2249. 2 sherds burnt. 2 separate bases? Rim 13 cm. Mid 9 cm. Base 9 cm. 5 - 9 mm thick.

37. 1550 - 1720 Strata 2b,3b Feature 1,5
27 sherds, base and 4 body fragments, unslipped, iridescent honey yellow brown spalling glaze, pink/ grey fabric. Cf. Gaskell-Brown 1979 #39, Grant 1983 Plate 4, type 10. Mid 8 cm. Base 9 cm. 6 - 9 mm thick.

38. 1550 - 1720 Strata 1,2b,2c Features 1,1a
23 sherds, rim and body fragments, white slip, mottled dark green/ brown glaze, careful rim form, moderate body, much quartz. Cf. Fairclough 1979 #322. Rim 13 cm. Mid 10 cm. 4 - 7 mm thick.75. 1550 - 1720 Strata 2b,2c,3,3c Feature 1,3

39. 1550 - 1720 Strata 2b,2c,3,3c Features 1,1a,3,5
16 body sherds, mottled shiny green glaze, brown/ green where spilled, orange/ grey fabric, rilled interior. Could be related to #34. Mid 14 cm. 4 - 5 mm thick.

40. 1550 - 1720 Strata 1,2b

10 sherds, rim and body fragment, light grey slip, mottled green/brown glaze, extensively spilled, orange beige fine fabric, gray in a few areas. Cf. Grant 1983 type 14. Rim 13 cm. Mid 18 cm. 4 - 5 mm thick.

41. 1550 - 1720 Strata 1,2b? Feature 1

18 sherds, rim body base fragments, off-white slip, mottled matte green/ brown glaze, brich orange/ grey fabric, quartz inclusions, careful rim, sooted. Cf. Grant 1983 type 10. Rim 12 cm. Mid 9 cm. Base 8 cm. 6-9 mm thick.

42. 1550 - 1720 Strata 1,2b,3

8 body fragments and sherds, unslipped, mottled green glaze, spalling pink/grey fabric, a few quartz inclusions. Cf. Gaskell-Brown 1979 #39, Grant 1983 type 10, Plate 4. Rim 12 cm. Mid 9 cm. 5 - 8 mm thick.

43. 1550 - 1720 Strata 1,2b,3b Feature 1

7 sherds, rim fragment, white slip, mottled dark green glaze, careful rim, moderate body. Cf. rim Fairclough 1979 # 321 Rim 11 cm. Mid 8 cm. 4 - 6 mm thick.

44. 1550 - 1720 Stratum 2f Feature 1

6 sherds, 2 rim, white accretion, dark brown black glaze, pink brown/grey fabric, moderate body, slight groove on

rim. Cf. Grant 1983 type 14, rim with Allan 1984 #2249. Rim 13 cm. Mid 9 cm. 5 - 6 mm thick.

45. 1550 - 1720 Strata 1,2c,2f,3c Feature 1
6 sherds, 2 rim and body fragments, off-white slip, spilled, mottled green glaze, overfired or burnt, pink orange/grey fabric, some quartz, careful rim form, two grooves at neck. Cf. Grant 1983 type 14, rim Allan 1984 #2249. Rim 13 cm. Mid 10 cm. 4 - 5 mm thick.

46. 1550 - 1720 Stratum 3b Feature 1
4 sherds, body fragment, olive green crazed shiny speckled glaze, orange beige/ grey fabric, evenly thrown, exterior grooves turned on wheel. Cf. Grant 1983 type 14. Could be related to #39. Mid 11 cm. 5 - 7 mm thick.

47. 1550 - 1720 Stratum 2b Feature 5
4 sherds, base fragment, honey brown glaze spilled, even simple base. Cf. base Fairclough 1979 #290. Mid 15 cm. Base 11 cm. 6 - 8 mm thick.

48. 1550 - 1720 Stratum 2b
1 rim sherd, no slip apparent, even smooth pink/grey/pink fabric. Cf. Fairclough 1979 #318. Related to Ferryland #47 or #38? Rim 14 cm. 7 - 8 mm thick.

49. 1550 - 1720 Stratum x Feature 1

1 body fragment, gritty dark brown glaze, heavy body, burned. Cf. Grant 1983 type 14. A fragment of #36?

Mid 8 cm. 9 - 10 mm thick.

NORTH DEVON CALCAREOUS TEMPER CEW

TALL POT

50. 1550 - 1720 Stratum 2c Feature 1

1 large rilled sooted body fragment, unslipped, yellow green glaze, somewhat sandy pitted grey fabric. Cf. Gaskell-Brown 1979 #39, Grant 1983 type 10, Plate 4 .

Mid 11 cm. 5 - 10 mm thick.

SOUTH SOMERSET CEW

BOWL

51. 1600 - 1700 Strata 1,2f Feature 1

11 rim and body sherds, gritty amber interior glaze, sandy brown pink fabric, maroon exterior, fine mica and quartz inclusions, evenly thrown. Cf. Fairclough 1979 # 251. Mid 26 cm. Base 6 cm. 7 mm thick.

CUPS

52. 1550 - 1700 Strata 2a,2b,2e,2f,3b Feature 1a,5

20 body sherds, white slip, yellow/green exterior glaze, hard slightly sandy buff/buff pink fabric, moderately

delicate, simple sgraffito decoration. Cf. Allan 1984 type 8, form Fairclough 1979 #217, sgraffito Gaskell-Brown 1979 #5. Mid 10 cm. 5 - 6 mm thick.

53. 1550 - 1700 Strata 1,2b,3

3 sherds, handle fragment and base sherd, white exterior slip, light green glaze on handle, trace of bright green on body, careful handle form, buff/grey fabric with pink surfaces. Cf. Allan 1984 type 8, handle curve Fairclough 1979 #217. Mid 7 cm. Base 5 cm. 3 mm thick.

DISH

54. 1600 - 1800 Stratum 2b Feature 1

4 rim, base and body sherds, brown speckled amber interior glaze, vesicular deep pink fabric, few quartz and large red inclusions, fired maroon where unglazed. Cf. Allan 1984 type 3a, form with Fairclough 1979 #226.

Rim 30 cm. Mid 25 cm. Base 20 cm. 5 - 6 mm thick.

MILK PAN (Figure 15.)

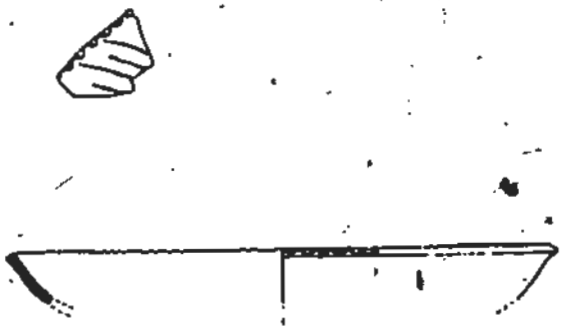
55. 1500 - 1700 Stratum 2b

13 body and rim sherds, amber brown/olive green interior glaze, fine sandy micaceous pink buff fabric, red inclusions, evenly thrown. Cf. Allan 1984 #1865.

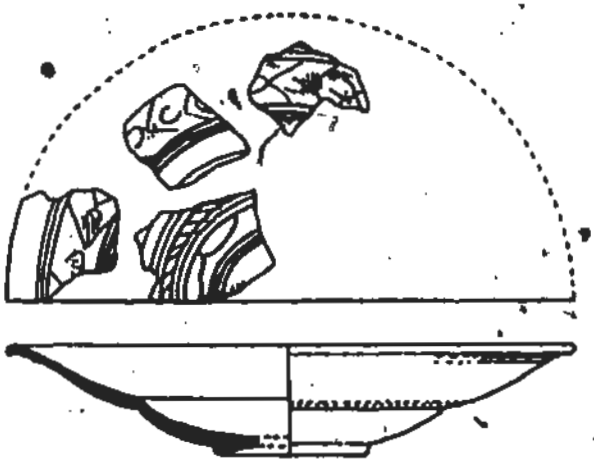
Rim 40 cm. Mid 35 cm. 4 - 5 mm thick.

55. South Somerset Milk Pan

69. Southern White Bodied Milk Pan



72. Staffordshire and Bristol Slipware Dish



95. North Italian Slipware Dish

Figure 15. Pans and Dishes in Various Wares. Scale 1:4 .

PAN

56. 1600 - 1700 Strata 1,2b

3 small base and body sherds, white interior trailed slip, yellow interior glaze, showing cream on slip, yellow brown on vesicular buff pink fabric with red inclusions. Cf. Allan 1984 type 2d,e. Mid 8 cm. 4 mm thick.

PORRINGER

57. 1600 - 1750 Strata 1,2b,2f,3b Feature 1a

5 sherds, rim and handle fragment, thin slip, brushed on exterior, yellow green exterior glaze, mottled olive green on interior, vesicular light red buff fabric, handle burnt (?) Cf. Gaskell-Brown 1979 #10, rim with Fairclough 1979 #252. Mid 10 cm. 4 - 5 mm thick.

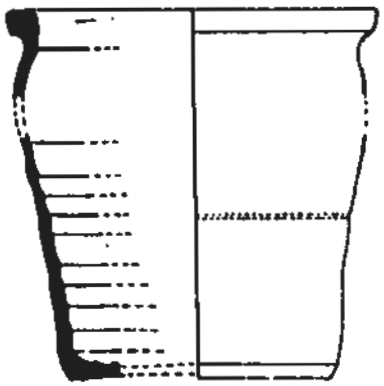
POTS (Figure 16)

58. 1700 (?) - 1900 Strata 1,2b,2f Feature 1

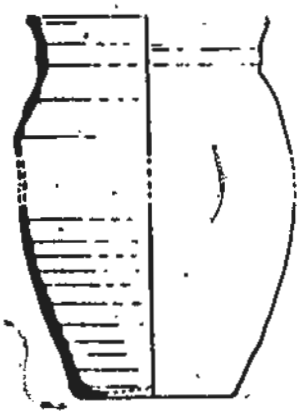
64 sherds, rim and base fragments, thin brown speckled amber orange interior glaze, hard vesicular buff pink fabric, fine quartz and red inclusions, evenly thrown, Cf. Gaskell-Brown 1979 #14 (18th-19th centuries!). Rim 20 cm. Base 15 cm. 4 - 6 mm thick.

59. 1600 - 1800 Stratum 2b Feature 1

8 sherds, body fragment, yellow orange interior glaze, vesicular pink buff fabric, slightly rilled uneven body,



58. South Somerset Pot



64. South-west Sandy Pot

Figure 16. West Country Pots. Scale 1/4.

exterior white slip bands. Cf. base Fairclough 1979 #249. Mid 18 cm. Base 12 cm. 4 - 7 mm thick.

SAUCER

60. 1600 - 1700 Strata 1,2c,3b Feature 1

3 rim sherds, off-white slip, vesicular buff pink/ grey/ pink fabric, quartz inclusions, delicately thrown. Cf. Allan 1984 types 3 e,f,g. Ware ascribed on basis of form. Rim 14 cm. 3 - 4 mm thick.

SOUTH WEST MICACEOUS CEW

MILK PAN ?

61. 1500 - 1700 Strata 2b,2d Feature 4

1 roughly formed rim sherd, off-white interior slip, honey brown/ green glaze. Cf. Fairclough 1979 #203. Rim 28 cm. Mid 20 cm. 5- 6 mm thick.

PAN

62. 1500 - 1600 (?) Stratum 2f Feature 1

1 careful grooved rim sherd, thin powdering white slip and honey brown glaze, well fired brick red/ grey fabric, fine mica and some quartz inclusions. Cf. Fairclough 1979 #157 (1500 - 1600). Rim 30 cm. 6 mm thick.

POT

63. 1400 - 1700 Stratum 2b

1 rim sherd, off-white interior slip, green brown spalled interior glaze, hard brick red fabric, grey brown on exterior. Cf. Gaskell-Brown 1979 #82. Rim 16 cm.

SOUTH WEST SANDY CEW

POTS. (Figure 16.)

64. 1500 - 1650 Strata 1,2b,2c,2f Feature 1

Over 100 base, body, rim fragments and sherds, thin white interior slip, spilled on exterior, brown green interior glaze, sandy brick red fabric, some buff marbling, band of white slip at neck and on body. Cf. Allan 1984 type 4b, (rim differs). Noël Hume calls the fabric West Country but not North Devon (personal communication, 1986). Rim 13 cm. Mid 15 cm. Base 8 cm. 4 - 8 mm thick.

65. 1500 - 1650 Strata 2f,3a,3b Feature 1

10 sherds including 2 rim fragments, grey slip, spalling olive green/brown interior glaze, hard sandy brick orange fabric, band of grey white slip at neck. Cf. Allan 1984 type 4b (rim differs), Ferryland #64. Rim 10 cm. Mid 11 cm. 3 - 5 mm thick.

66. 1500 - 1650 Stratum 2f Feature 1

8 rim and body sherds, off-white interior slip, iridescent powdering brown/black interior glaze, coarse quartz tempered brick red fabric, deep brown on exterior,

moderately heavy body. Cf. Allan 1984 type 4b (rim differs), Ferryland #64. Rim 12 cm. Mid 8 cm. 5-8 mm thick.

67. 1500 - 1650 Stratum 2f Feature 1
4 rim and body sherds, grey interior slip, mottled brown/green interior glaze, coarse sandy brick red fabric, fired maroon black on exterior, delicate body, careful rim form. Cf. Allan 1984 type 4, Ferryland #64.
Rim 13 cm. Mid 9 cm. 4 - 5 mm thick.

SOUTHERN WHITE BODIED CEW

BOWL

68. 1600 - 1720 Stratum 2b Feature 5
4 rim and body sherds, light green interior glaze, fine hard cream white fabric, beige blush to exterior, delicately thrown. Cf. Allan 1984 #2134, 2561.
Rim 14 cm. 3 - 5 mm thick.

MILK PAN (Figure 15.)

69. 1500 - 1700 Stratum 2b
3 sherds, 2 rim, green glaze, gritty white fabric, some red inclusions. Cf. Fairclough 1979 # 268. Rim 29 cm.

STAFFORDSHIRE AND BRISTOL CEW SLIPWARE

CUPS

70. 1670 - 1700 Strata 1, 2b

4 body sherds, brown on white slip, amber yellow glaze, vesicular white fabric, linear slip combing perpendicular to throwing. Mid 8 cm. 3 - 4 mm thick.

71. 1670 - 1750 Stratum 2b

2 body sherds, marbled brown on grey slip, heavy amber glaze, even fine grey fabric. Mid 7 cm. 3 - 4 mm thick.

DISH (Figure 15.)

72. 1670 - 1750 Strata 1,2d Feature 4

2 sherds, rim fragment, interior brown slip combed into white, yellow glaze, hard buff vesicular fabric, pie crust rim. Cf. Allan 1984 #2633. Rim 28 cm. 6 mm thick.

JUG (CUP?)

73. 1670 - 1720 Strata 2b,3

3 sherds, base fragment, white slip, heavy amber yellow glaze, hard fine buff fabric, delicately thrown, marbled brown slip decoration. Cf. Allan 1984 #2905. Base 5 cm. 3 - 4 mm thick.

MIDLANDS PURPLE CEW BOTTLE (JUG?)

74. 1600 - 1750 Stratum 2b

4 body sherds, dark purple brown interior glaze, hard fine brick red fabric. Cf. Brears 1971 types 8, 9. Mid 14 cm. 5 - 6 mm thick.

UNIDENTIFIED WARES (Probably English or Anglo-American)

CUP (JUG?)

75. Burned CEW Stratum 2d Feature 4

1 base fragment, black glassy pitted glaze, very hard black fabric, burnt after deposition, glaze has run. Mid 10 cm. Base 8 cm. 4 - 7 mm thick.

CUP

76. Red CEW - Strata 1, 2f Feature 1

10 rim, base and body sherds, one with handle attachment, black speckled brown iridescent glaze, hard fine sandy red brick fabric, delicately thrown. Forest of Dean CEW or Midlands Purple CEW (Gaskell-Brown 1979)? Rim 10 cm. Mid 9 cm. Base 7 cm. 3 - 4 mm thick.

HOLLOW WARE

77. Red CEW Strata 2b, 2f Feature 1

5 body and base sherds, crazed dull iridescent brown glaze, spilled on base, smooth chaulky brick orange red fabric, New England? Base 10 cm. 5 - 6 mm thick.

POTS

78. Red CEW Stratum 2f Feature 1

4 rim and body sherds, dark green brown interior glaze, hard sandy micaceous red/grey fabric, fired dark brown on

exterior, grooves just inside base, distinctive rim with decisive carination. Rim 18 cm. Base 11 cm. 4-7 mm thick.

79. Red CEW Strata 1,2f Feature 1

3 body sherds, dark green brown interior glaze, somewhat rough textured, hard dark brown brick red fabric, some large dark and quartz inclusions, cf. fabric of # 80. Anglo-American ? Mid 14 cm. 6 - 8 mm thick.

80. 1550 - 1720 Stratum 2f Feature 1

2 rim and body sherds, spalled interior brown/yellow brown glaze, spilled on exterior, unusual brick red fabric, quartz inclusions, careful unusual rim form. Possibly North Devon, cf. Grant 1983 type 14. Rim 12 cm. Mid 9 cm. 6 - 7 mm thick.

MERIDA CEW[1]

BOTTLES (Figure 17.)

81. 1300 - 1800 Strata 2b,3 Feature 5

25 sherds, rim and neck fragment, interior yellow/ green glaze, shiny green to flecked maroon where sparse, orange/ grey fabric, burnished on exterior. Cf. Gaskell-Brown 1979 #308, Saphire 18M-11. Glazing on Merida bottles unusual, another example from Ferryland Pool (CgAf-2: 13). Rim 6 cm. Mid 20 cm. Base 8 cm. 7 mm thick.

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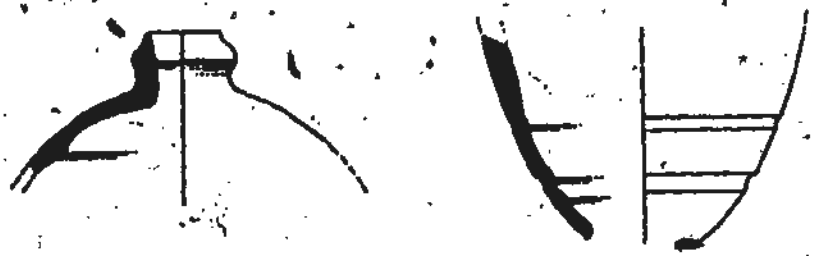
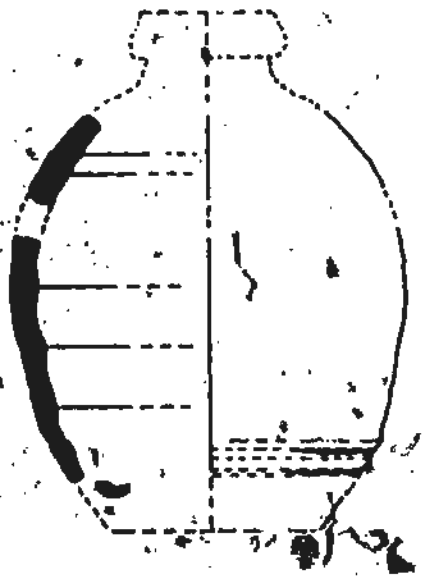
1 All fabrics are micaceous. Slips are on exterior.



81. Bottle

86. Bowl

Merida



92. Spanish Heavy CEW Jar

Figure 17. Merida and Spanish Heavy CEW Vessels. Scale 1:4

82. 1300 - 1700 Strata 1,2b

18 body sherds, possible horizontal handle attachment, heavy quartz tempered orange buff/brick red/orange buff fabric. Cf. Saphire 18M-11. Mid 34 cm. 4 - 9 mm thick.

83. 1300 - 1800 Strata 1,2b,2f Feature

17 sherds including rim and body fragments, pink orange fabric marbled with a whiter clay, fired dark orange on burnished exterior. Cf. Saphire 18M-11.

Rim 5 cm. Mid 19 cm. 5 - 9 mm thick.

84. 1300 - 1800 Strata 1,2b,2d Feature 4

13 body sherds, bubbled white exterior slip, spalled yellow/green interior glaze grading to sandy maroon flecks where sparse, sandy on exterior where slip absent, decorative (?) band of white slip on annular exterior groove, sooted, unusual profile with curved carination. Mid 17 cm. 7- 9 mm thick.

85. 1300-1800 Stratum 2b

3 body sherds, (bottle?), white slip, red beige/ grey/ brick red fabric. Mid 25 cm. 6 - 7 mm thick.

BOWL (Figure 17.)

86. 1300 - 1800 Stratum 2b

4 heavy body sherds, dark grey brown fabric, burnished on exterior, shallow "finger nail" groove. Cf. Fairclough 1979 #547 (c.1500-1600). Mid 16 cm. 8 - 11 mm thick.

JARS

87. 1300 - 1800 Stratum 2f Feature 1

6 rim and body sherds, thin white slip, hard chaulky pink orange fabric, with fine mica and some quartz inclusions, body rilled on interior, wiped smooth on exterior. Rim 6 cm. Mid 15 cm. 7 - 8 mm thick.

88. 1300 - 1800 Stratum 3b Feature 1

3 heavily thrown body sherds, off-white slip, vesicular orange beige fabric, white marbled, white and red inclusions. Mid 17 cm. 7 - 10 mm thick.

MILK PAN

89. 1300 - 1700 Strata 2b,2f Feature 1

4 body sherds, base of horizontal handle, quartz temper, body burnished on exterior. Mid 30 cm. 5 - 7 mm thick.

PAN -

90. 1300 - 1700 Stratum 2b

1 body fragment, near rim (?), thin white slip, burnished on exterior, "finger nail" groove. Cf. Sapphire 18M-16. Mid 27 cm. 8 - 10 mm thick.

POT

91. 1300. - 1800 Strata 1,2b,3b Feature 1

11 rim and body sherds, white slip, orange/grey brown fabric. Rim 15 cm. Mid 20 cm. 4 - 8 mm thick.

SPANISH HEAVY CEW

JARS (Figure 17.)

92. 1500 - 1800 Strata 1,2b

8 sherds, thin white exterior slip, bright olive green interior glaze, coarse buff fabric, rilled body. Cf. Carter types C and E, Goggin "middle period" type B, Fairclough 1979 #577, Gaskell-Brown 1979 #313, Allan 1984 #1885, 2129, 2495. Mid 23 cm. 9 - 13 mm thick.

93. 1500 - 1800 Strata 1,2b

7 sherds, body fragment, spalling, cream exterior slip, slightly pink grey very coarse fabric, heavy body. Mid 22 cm. 7 - 8 mm thick.

94. 1500 - 1700 Strata 1,2f Feature 1

3 body sherds, cream exterior slip, thin green interior glaze, coarse pink buff fabric, heavy body. Mid 21 cm. 11 - 12 mm thick.

NORTH ITALIAN CEW SLIPWARE DISH (Figure 15.)

95. 1625 - 1650 Strata 1,2b

18 rim, base and body sherds, body fragment, cream interior slip, clear glaze with localized yellow and green tints, finely thrown, typical carination, smooth terra cotta fabric, shallow even sgraffito, bands and geometrical motifs. Cf. parallel in Gaskell-Brown 1979 #225. Rim 32 cm. Base 8 cm. 6 mm thick.

UNIDENTIFIED IBERIAN STYLE CEW

BOTTLE (?)

97. Stratum 3b Feature 1

2 sherds, body fragment, hard gritty red brown micaceous fabric, delicately thrown, turned annular groove on exterior. Noël Hume suggests Iberian or Mexican (personal communication 1986). Mid 15 cm. 3 - 5 mm thick.

Tin Glazed Earthenware

ENGLISH TIN GLAZE

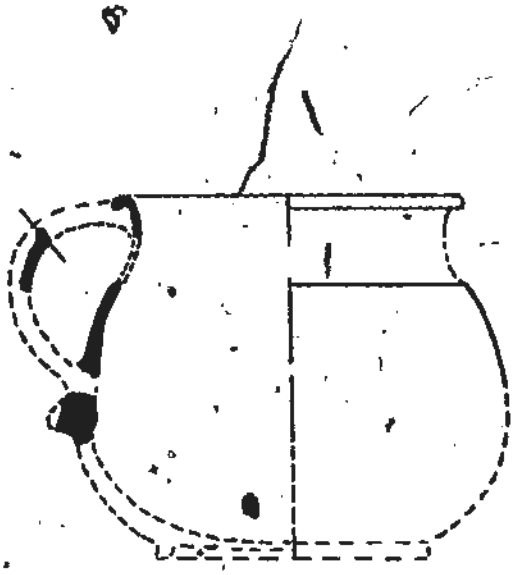
CHAMBER POT (Figure 18.)

97. 1600 - 1700 Stratum 2b

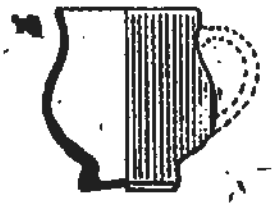
4 rim, body and handle fragments, white tin glaze, few minute blue spots, relatively hard pink buff fabric, smooth thick body, single decorative rill. Cf. Amis 1968 #16. Rim 20 cm. Mid 24 cm. 4 - 11 mm thick.

CUPS (Figure 18).

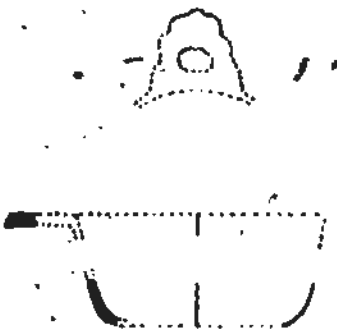
98. 1600 - 1670 Stratum 2b



97. Chamber Pot



98. Cup



105. Porringer

Figure 18. English Tin Glaze Vessels. Scale 1:4 .

3 rim and base fragments, many sherds, handle attachment, slightly purplish white tin glaze interior, Malling style sponged purple manganese exterior, yellow buff moderately hard fabric, few quartz inclusions. Cf. Fairclough #349, Noël Hume 1977 Pl.23 (1640 - 1670), Garner and Archer 1972 Plate 6 (1628), Watkins 1974 Figure 3. Rim 8 cm. Mid 9 cm. Base 5 cm. 8 mm thick.

99. 1650 - 1730 Stratum 2b
5 sherds, 1 rim, even white tin glaze, few minute grey speckles, moderately soft buff pink fabric, small red inclusions, delicate. Cf. Bloice 1971 #61b.
Rim 11 cm. Mid 11 cm. 3 - 4 mm thick.

100. 1650 - 1730 Stratum 2b
1 base sherd, pale buff hard somewhat sandy fabric, resembles typical tin glaze fabric, cup or jug (?).
Cf. Bloice 1971 #61b (1680 - 1730). Base 6 cm.

101. 1650 - 1730 Stratum 2b
1 rim sherd, even white tin glaze with a blue cast, fairly hard buff fabric, delicate body, pseudo-chinese (?) dots and curves brushed in blue, very small sherd, could be a bowl. Cf. Bloice 1971 #62a (cup) or #42 (type 2a 1 bowl). Rim 9 cm. 3 mm thick.

PLATES

102. 1650 - 1730 Strata 1,2b Feature 1,5

12 sherds, 1 rim, even white glaze extensively spalled, fine very soft chaulky yellow buff fabric, red inclusions, blue brushed or sponged decoration, no footring evident. Cf. rim Noël Hume 1977 Plate 7.4 (1650-80); Bloice 1971 #21 (1680-1730). Rim 20 cm. Mid 12 cm. 4 - 5 mm thick.

103. 1620 - 1640 Strata 1,2b,3

8 sherds, 1 rim, slightly mottled light grey tin glaze, very soft buff fabric, brushed blue band at rim. Cf. Martin's Hundred material c. 1620-1640 (Noël Hume, personal communication 1986). Rim 22 cm. 5 - 6 mm thick.

104. 1675 - 1730 Strata 1,2b,2d Feature 1,4

12 sherds with rims and base, even white tin glaze, 3 sherds sooted, fairly dense pink buff fabric, delicate body. Cf. Noël Hume 1977 Plate 7.4 (1650-1680)? Bloice 1971 #38 (type 3b: 1680 - 1730). Noël Hume suggests footrings post 1675. Rim 18 cm. Base 10 cm. 4 mm thick.

PORRINGER (Figure 18.)

105. 1600 - 1650 Stratum 2b Feature 5

4 sherds, 3 near base, 1 handle, white tin glaze with purple cast, chaulky beige fabric with small red inclusions. Cf. handle Noël Hume 1977 Plate 14,7 but not

simple footless base. Noël Hume suggests purple tinted tin glaze suggests English provenance (personal communication 1986). Mid 13 cm. Base 9 cm. 4 - 5 mm thick.

DUTCH TIN GLAZED EARTHENWARE PLATE

106. 1600 - 1660 Strata 1,2f Feature 1

11 sherds, 1 rim, grey white shiny glaze, some blue and grey speckles, very soft fine cream/ pink/ cream fabric, traces of green and blue decoration on rim, deep cobalt blue brushed interior, lighter blue (bands?) exterior. Cf. Allan 1984 #2106-2113. Rim 19 cm. 5 - 6 mm thick.

FRENCH TIN GLAZED EARTHENWARE

BOWL

107. 1630 - 1690 Strata 2b,2f,3a Feature 1,5

24 sherds, 3 rim, slightly grey speckled white tin glaze, hard salmon pink fabric, rilled on interior, even but not delicate body. Cf. Genet 1980 Plate 56a (1633-1682). Rim 18 cm. Mid 15 cm. Base 5 - 6 mm thick.

FOOTED PLATE

108. 1675 - 1725 Stratum 2b Feature 5

12 body sherds, robin's egg blue tin glaze "Style de Nevers" (Genet 1980: 85), moderately soft cream fabric, moderate body, brushed with medium blues. Cf. Genet 1980 Plate 33. Mid 20 cm. 4 - 6 mm thick.

IBERIAN TIN GLAZED EARTHENWARE

DISH

109. 1500 - 1800 Stratum 2b

1 body sherd, heavy yellow cream tin glaze, pitted and slightly crazed, soft buff fabric with many quartz inclusions, heavy body. Mid 20 cm. 8 mm thick.

FOOTED PLATE (Figure 19.)

110. 1600 - 1800 Strata 1,2b,3 Feature 1

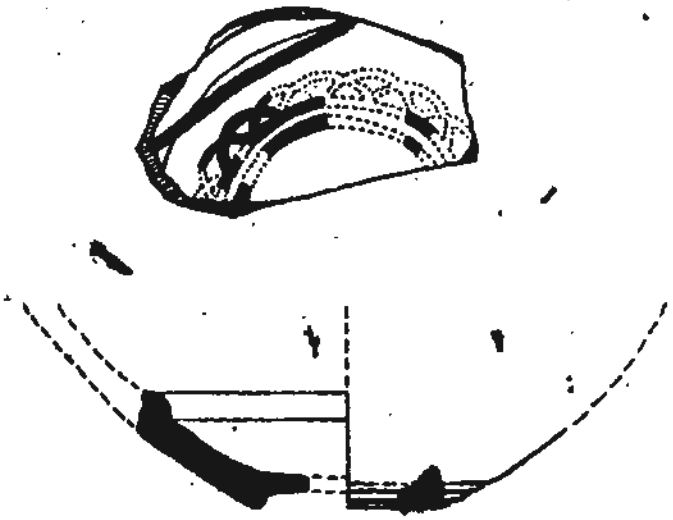
22 sherds, rim and base, greyish tin glaze, pitted on bottom, fairly hard buff fabric, red and black inclusions, delicate smooth body, freely brushed decoration broad blue with magenta outlines, stylized floral and "bug" motifs, rim regular protrusions. Cf. Watkins 1973 Figure 9. Rim 21 cm. Mid 16 cm. Base 12 cm. 5 mm thick

SAUCER (Figure 19.)

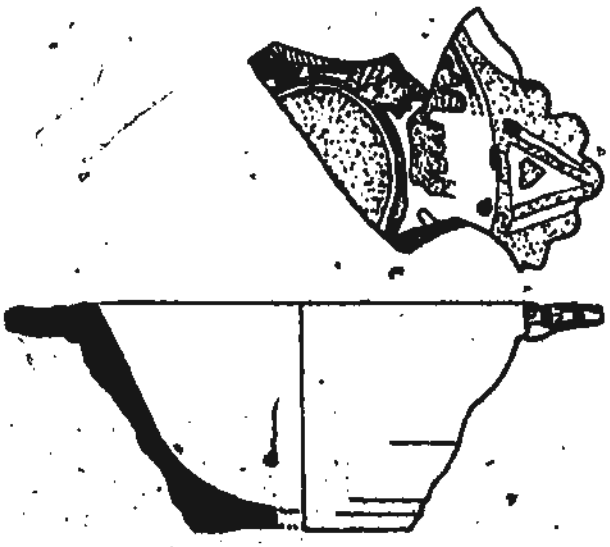
111. 1500 - 1635 Stratum 2b Feature 5

3 sherds, body fragment, mottled grey/white finely crazed bubbled thin tin glaze, soft cream body, turned grooves on exterior, monochrome blue brush work, arc and band motif. Cf. form Allan 1984 #2742, decor Noël Hume 1977 Plate 14.1, Goggin 1968: 128 Yayal Blue on White (Seville), form Figure 3a. Mid 10 cm. Base 5 cm. 5 - 8 mm thick.

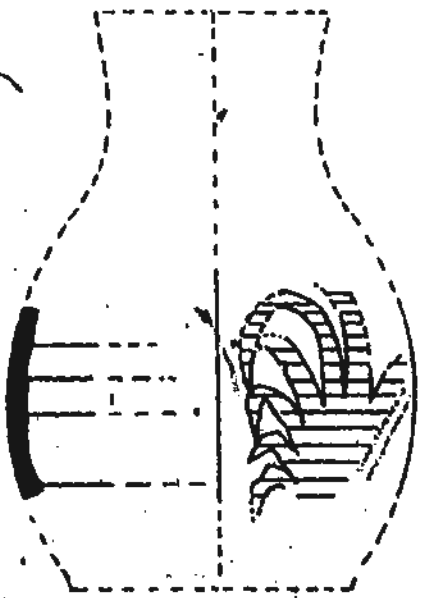
110. Iberian Tin Glaze Footed Plate



111. Iberian Tin Glaze Saucer



113. Spanish Lustreware Porringer



114. Italian Montelupo Jug

Figure 19. Continental Tin Glaze Vessels. Scale 1:2 .

JUG ? (HANDLE)

'12. 1500 - 1800 Stratum 2b

1 handle sherd, grey crazed tin glaze, hard brown fabric, smooth handle fragment, heavy thick blue and thinner purple manganese brushed geometric motifs.

SPANISH TIN GLAZED LUSTREWARE

PORRINGER (Figure 19.)

'13. 1500 - 1700 Strata 1,2b

8 rim and base sherds and fragments, heavy shapely body, copper lustre and blue painted freely on cream tin-glaze with orange pink stains. Cf. Gaskell-Brown 1979 #324, Goggin 1968 Plate 6.g,k. Rim 13 cm. Base 6 cm. 6 - 9 mm thick.

'TALIAN MONTELUPO TIN GLAZED EARTHENWARE

JUG (Figure 19.)

'14. 1550 - 1650 Strata 1,2b

.6 sherds, 1 fragment, white with exterior polychrome decoration, soft buff fabric, thin magenta, ochre and green vertical bands on brushed blue floral motif. Cf. Gaskell-Brown 1979 #202, Allan 1984 #2727 (1598-1624), Genet 1980 Plate 102c. Mid 15 cm. 5 mm thick.

Stonewares and Porcelain

FRECHEN STYLE BROWN SALT GLAZED STONEWARE BOTTLES (Figure 20.)

115. 1625 - 1725 Stratum 2b

3 sherds, base fragment, mottled iron exterior stain, salt glazed, untidy and crusted, grey fabric, fired dark grey on interior. Cf. Moorhouse 1970 #268 (1540-1645); Reineking-von Bock 1971 #328 (1600) but Gusset (1980: 165) suggests a small base is typical of the later seventeenth century, Mid 10 cm. Base 6 cm. 5 - 6 mm thick.

116. 1550 - 1725 Strata 1,2b

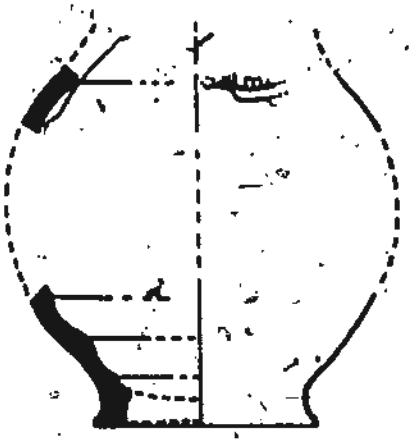
3 body sherds, fragment with handle attachment, open mottled brown stain, coarse light grey stratified granular fabric. Mid 18 cm. 5 - 7 mm thick.

117. 1550 - 1725 Stratum 3

1 base sherd, bottle (?), trace of brown stain, fine slightly olive grey fabric, base heavily rilled, Base diameter is a minimum. Base 5 cm. 5 - 7 mm thick.

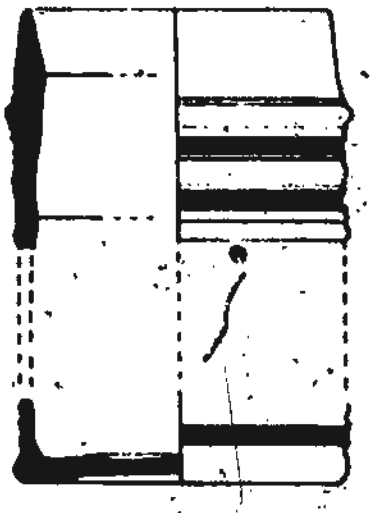
118. 1550 - 1725 Strata 2b,3b Feature 1

4 body sherds, bottle (?), mottled brown exterior stain, grainy vesicular grey fabric. Mid 11 cm. ? mm thick.

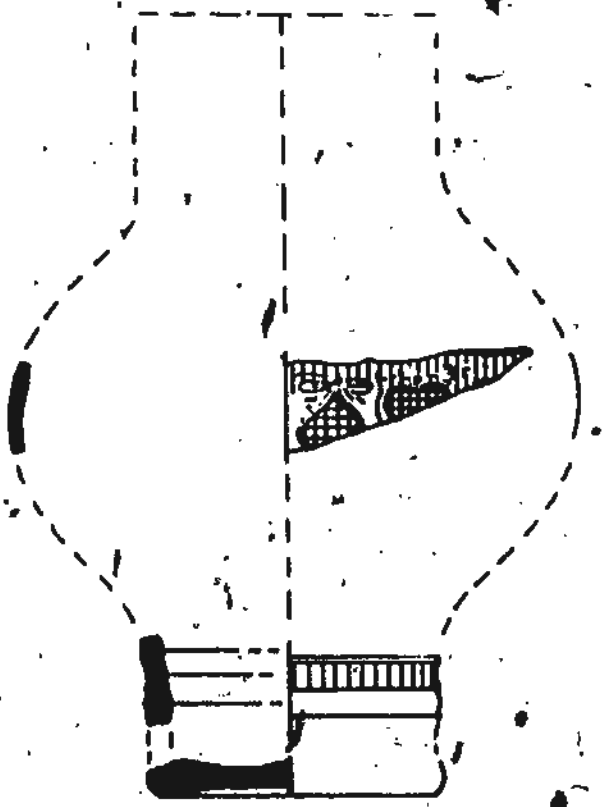


115. Frechen Style Bottle

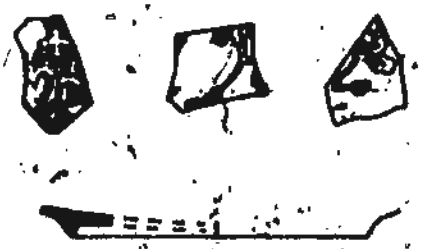
121. Rosette Sprig from Westerwald Jug



124. Westerwald Mug



119. Westerwald Jug (Magenta and medium blue on gray.)



130. Chinese Porcelain Saucer

Figure 20. Rhenish Stoneware and Chinese Porcelain Vessels. Scale 1:2

WESTERWALD GREY SALT GLAZED STONEWARE

JUGS (Figure 20.)

119. 1650 - 1700 Strata 1,2b,3?

3 sherds, 1 near base, blue tinted glaze, cream interior, light grey fabric, quite delicate, very large, well cut sprigs, magenta heart motif, cobalt blue background. Cf. Reineking-von Bock 1971 #382 (1650-99), St. Mary's City (1665-1745) ST1-19-4 , Saphire (1696) 18M-65, Jamestown J-7553. Gusset (1980: 156) suggests magenta staining is generally post 1660. Mid 15 cm. Base 8 cm. 3-8 mm thick.

120. 1670 - 1700 Stratum 2b

1 body sherd, cobalt blue stain, fine light grey fabric, delicate body, finely cut 1 cm diameter rosette sprigs on even dark blue ground. Cf. Reineking-von Bock 1971 #552 (1694), St. Mary's City ST1-19-394 BS (1665-1745). Noël Hume dates such sprigs c. 1650 - 1675 (personal communication 1986). Mid 7 cm. 3 mm thick.

121. 1650 - 1700 Stratum 2b

1 body sherd, cobalt blue stain, fine dark grey fabric, delicate body, grainy black interior, finely cut 1.5 cm rosette sprigs. Cf. Reineking-von Bock 1971 #552 (1694) also bottle #528 (earlier), St. Mary's City St1-19-394 BS etc. (1665-1745). Mid 10 cm. 3 mm thick.

MUGS (Figure 20)

122. 1714 - 1750 Strata 1, 2b? Feature 1

5 sherds, base and body fragments, very vitrified fabric, delicate body, impressed "GR" medallion in surround of beads, incized as well. Cf. Gusset 1980 #10a (right). Mid 12 cm. Base 11 cm. 4 - 5 mm thick.

123. 1650 - 1740 Strata 1, 2a

2 rim and base fragments, dark blue grey tinted glaze, heavy body, well turned cordons and grooves, cobalt blue stained grooves. Cf. Reineking-von Bock 1971 #473 (1650-1675) #586 (1695-1726), Gusset 1980 5b(1700-1740). Rim 10 cm. 7 - 8 mm thick.

124. 1695 - 1725 Strata 1, 2b

2 fragments, base and rim, moderate body, grey fabric, debris stuck in interior basal glaze, turned bands, neatly stained with cobalt blue. Cf. Reineking-von Bock 1971 #586. Rim 9 cm. Base 9 cm. 3 - 7 mm thick.

125. 1600 - 1750 Stratum 2d Feature 4

1 rim sherd, slightly yellow glaze, well vitrified moderately fine even grey fabric, heavy body. Rim 11 cm. 8 mm thick.

126. 1700 - 1750 Stratum 2b

1 base (?) sherd, distinct "orange peel" glaze surface texture, heavy body, turned band neatly stained with cobalt blue. Cf. base Reineking-von Bock 1971 #593. Base 18 cm. 5 - 7 mm thick.

NORMANDY BROWN STONEWARE

BOTTLES

127. 1600 - 1800 Stratum 2b

1 body sherd, grainy but highly vitrified dark brown/dark olive/dark brown fabric, very delicately thrown. Cf. Décarie-Audet 1979 Figure 11. Mid 9 cm. 3 mm thick.

128. 1600 - 1800 Stratum 2f Feature 1

2 body sherds, very hard chocolate brown fine grained fabric, small bottle. Cf. Décarie-Audet 1979 Figure 12. Mid 11 cm. 3 - 4 mm thick.

POT

129. 1500 - 1800 Stratum 2f Feature 1

5 sherds and fragments, brick orange/dark grey fabric, intermediate earthenware/stoneware, quartz and yellow inclusions, deep maroon brown interior, burnt orange brick exterior, butter pot (?). Cf. form Décarie-Audet 1979 figures 5, 35a, Gaskell-Brown 1979 #151. Mid 14 cm. 4 - 5 mm thick.

CHINESE HARD PASTE PORCELAIN

FOOTED SAUCER (Figure 20.)

130. 1585 - 1600 Strata 2b,2f Feature 1

4 base and body sherds, thick even glassy glaze, turquoise tint, very even hard fine grained porcelain, painted monochrome blue under glaze, floral/foliiform motif. Cf. form and motif Allan 1984 #2100 (Wan-Li style 1585-1600). Base 8 cm. 2 - 3 mm thick.

The relationship between wares and vessel forms at Ferryland Locus B is most conveniently summarized as a matrix. In fact three matrices are offered here, one for the earlier contexts, one for the later and one for the locus as a whole (Tables 9, 10 and 11 respectively). The percentage distribution of the identifiable vessels by ware and by vessel form is summarized in these matrices, which are presented in order to facilitate discussion and comparison with other seventeenth century sites in the following chapters.

Table 9. Vessel Forms and Wares
Minimum Number of Vessels and Percentage of Total
Ferryland, Locus B, Level 3

VESSEL	N DEV	SWest	MRDA	TIN	CSW	OTHER WARES	TOTAL	%
Pot		1	1				2	6
Tall Pot	9						9	27
Jar			1				1	3
Lid								
Bowl				1			1	3
Milk Pan								
Pipkin	4						4	12
Flesh Pot	2						2	6
Pan								
Dish								
Plate				2			2	6
Saucer		1					1	3
Porringer		1					1	3
+ Hollqware								
Cup	1	2					3	9
Mug								
Drink Pot	1						1	3
Jug	2						2	6
Bottle			1		2	1 Unknown CEW	4	12
Pitcher								
Chamber Pot								
TOTALS	19	5	3	3	2	1	33	99
PERCENT	58	15	9	9	6	3	100	

Notes: Two jugs, Staffordhire/Bristol Slipware and Westerwald, excluded as intrusive.

N DEV = North Devon
SWest = Other West Country wares
MRDA = Merida
TIN = Tin Glaze
CSW = Coarse Stoneware

Table 10. Vessel Forms and Wares
Minimum Number of Vessels and Percentage of Total
Ferryland, Locus B, Level 2

VESSEL	N DEV	SWest	MRDA	TIN	CSW	OTHER WARES	TOTAL	%
Pot	1	6			1	2 Unknown	10	10
Tall Pot	9					1 Unknown	10	10
Jar			1			3 Spanish CEW	4	4
Lid	1						1	1
Bowl	1	1	1			1 S.Whiteware	4	4
Milk Pan	2	2	1			1 S.Whiteware	6	6
Pipkin	8						8	8
Flesh Pot	1						1	1
Pan	1	2	1				4	4
Dish	4	1		1		2 N.Ital&Staff	8	8
Plate				4			4	4
Saucer				1		1 Porcelain	2	2
Porringer	3			2			5	5
+ Holloware						1 Unknown	1	1
Cup				4		4 Staffs & ?	8	8
Mug					4		4	4
Drink Pot								
Jug				2	3	1 Staffs	6	6
Bottle			4		4	1 Mid.Purple	9	9
Pitcher	1						1	1
Chamber Pot				1			1	1
TOTALS	32	12	8	15	12	18	97	97
PERCENT	33	12	8	15	12	19	99	

Note: Excludes an eighteenth century Westerwald "GR" mug as intrusive.

Includes the two jugs excluded from Table 9.

Spanish CEW = Spanish Heavy Earthenware
S. Whiteware = Southern White Bodied Earthenware
N Ital = North Italian Slipware
Staffs = Staffordshire and Bristol Slipware
Mid. Purple = Midlands Purple Earthenware

For other abbreviations see Table 9.

Table 11. Vessel Forms and Wares
Minimum Number of Vessels with Percentage of Total
Ferryland, Locus B, Levels 3 and 2 combined

VESSEL	N DEV	SWest	MRDA	TIN	CSW	OTHER WARES	TOTAL	%
Pot	1	7	1		1	2 Unknown	12	9
Tall Pot	18					1 Unknown	19	15
Jar			2			3 Spanish CEW	5	4
Lid	1						1	1
Bowl	1	1	1	1		1 S.Whiteware	5	4
Milk Pan	2	2	1			1 S.Whiteware	6	5
Pipkin	12						12	9
Flesh Pot	3						3	2
Pan	1	2	1				4	3
Dish	4	1		1		2 N.Ital&Staff	8	6
Plate				6			6	5
Saucer		1		1		1 Porcelain	3	2
Porringer	3	1		2			6	5
+ Holloware						1 Unknown CEW	1	1
Cup	1	2		4		4 Unknown CEW	11	9
Mug					4		4	3
Drink Pot	1						1	1
Jug	2			2	3	1 Staffs	8	6
Bottle			5		6	2 Mid.Purp & ?	13	10
Pitcher	1						1	1
Chamber Pot				1			1	1
TOTALS	51	17	11	18	14	19	130	102
PERCENT	39	13	8	14	11	15	100	

Notes: Excludes an eighteenth century Westerwald "GR" mug as intrusive.

For abbreviations see Tables 9 and 10.

CHAPTER 9

WARE ANALYSIS

Archaeologists have usually used the occurrence of wares at Early Modern sites for dating purposes (eg. South 1971), or to illuminate trade relationships (eg. Watkins 1960) and it seems possible that price scaling might permit economic status analysis (cf. G.L.Miller 1980). The evaluations in this chapter of some of the hypotheses mooted at the end of Chapter 5 fall under one or another of these approaches. It would be useful therefore to outline their potential and their limitations with reference to seventeenth century Newfoundland.

Dating

The dates of production of most Early Modern wares are known to within a half century. Stylistic variation can date certain wares within a decade or two. Dating the production of a vessel is much more straightforward than dating a site, however. The half-life of a typical utilitarian vessel, probably a decade at most (cf. Allan 1984: 135), would not be long enough to make the difference between date of production and date of deposition significant in the context of a typical date range for utilitarian wares, which are often in the order of a century. On the other hand, in the case of more expensive decorated

vessels, perhaps with some sociotechnic function, it would not be surprising if there was sometimes an heirloom effect in which such vessels were discarded long after they were produced. The Chinese Porcelain Saucer (# 130) may be such a case.

There is another, more complex, problem in applying dates of production to the dating of sites, a problem that is by no means confined to ceramics. The dates we have are a range which brackets the years of production while the information we want, about deposition is a single date. It is possible to manipulate date ranges to generate median date. It is even possible to find a weighted mean of such median dates for a particular site by taking into account the percentage distribution of wares (South 1971). I have chosen not to use this technique here, preferring to work with date ranges despite their statistical clumsiness.

There are, I think, at least three problems attending "mean" (actually mean median) dates. First, the results are ambiguous. Completely different occupations have identical median dates; for example occupations from 1600-1700, 1640-1660, 1500-1800 or even 1500-1600 followed by 1700 -1800 share median dates of 1650. Second, a formula like South's makes no allowance for the changing role of ceramics (which he notes in passing). Thus the

fact that ceramics are "under-utilized" before 1700 is not allowed for (Shammas 1980: 8, Beaudry et al. 1983: 24). The formula treats all wares uniformly and hence is probably biased to later wares. Finally, such a formula encourages uniform and precise statistical manipulation of heterogeneous and not equally exact sets of dates. The precision of mean ceramic dates is, therefore, misleading. Is a mean ceramic date of 1654 +/- 4 years really more informative than dating an occupation to the 1650s? The latter sounds subjective -- but the subjectivity lies in ware identification and sometimes in the choice of initial and terminal dates of production. The mean ceramic date formula only disguises this subjectivity.

Trade

The presence of "foreign" material on a site is as objective an indication of an economic relationship between its producers and its consumers as one could hope for. A crude analysis in this vein of the Ferryland ceramics accords remarkably well with the historical record, confirming that trade relations were primarily with South West England and secondarily with the Mediterranean countries. Questions of any subtlety require a more sophisticated analysis which must take into account the role of Newfoundland harbours like Ferryland in the new European world economy (Wallerstein 1974) and the dominance

of the West Country outports over almost all trade to Newfoundland (Stephens 1956, Matthews 1968).

The majority of ceramic vessels were probably supplied in small parcels to settlements like Ferryland directly from the West Country. The Exeter Foreign Port Books of the 1680s record the export on one occasion of Earthenware worth 6s 8d to "Ireland, Newfoundland and a fishing voyage" for example (PRO E 190 cited in Allan 1984 microfiche: 59). With respect to trade links, the supply of non West Country wares is probably of greater interest. In the case of stonewares this trade was an extention of the down-the-line distribution that characterized the stoneware trade in the west of England to c. 1660 (Allan 1983). Even in later years, when West Country ports imported stonewares directly, the supply to Newfoundland came via these ports, for example the "300 cast stone pots uncovered" shipped in 1706 (PRO E 190 cited in Allan 1984 microfiche: 56).

The nature of the supply of Mediterranean wares to Newfoundland is less clear. To get at this question archaeologically it will be necessary to compare the proportion of Mediterranean wares at sites like Ferryland Locus B with proportions at West Country ports. This data has been published in some detail for Exeter (Allan 1984).

Status Analysis

The data from Exeter are also of interest in the context of price scaling and status analysis. Allan has discerned, in the several dozen Early Modern sites excavated recently in that city, a correlation between wealth, as indicated by the number of hearths per household in tax records, and the consumption of "imported", ie. non-West Country wares (1984: 101). Because of the western outports' dominance of the English Shore it is, fortunately, plausible to use such wares as status indicators at Ferryland.

There is an incipient debate in the literature on the question of whether the use of non-dairy-related ceramics in general is an indicator of high status or at least pretentions to some particular status. Deetz has suggested this began to be true in New England about 1660 (1973: 28) but Beaudry et al. (1983: 22) have taken exception to any generalizations about such a pattern, pointing out that many residents of the seventeenth century Chesapeake region, including the wealthy, seem to have owned mostly pewter rather than ceramic vessels. Since we are only beginning to uncover the archaeological record of Early Modern Newfoundland it is probably best to suspend judgement on which of these patterns might apply here after 1660 and to assume that until then the substitution of ceramic vessels for metal ones may have had no social significance.

The Chesapeake researchers have also made a cogent criticism of status analyses in general by comparing them with the use by some prehistorians of inter-assemblage variability as an index of cultural distance. In each case, as they point out, it is often simply assumed that the archaeological record varies unidimensionally under the influence of a single determinant (Beaudry et al 1983: 22). Such an approach is indeed facile and it is in fact necessary to evaluate putative correlations in a wider functional context.

One way of cutting through some of these difficulties is to argue that since the poor cannot afford expensive goods, whatever their function, the presence of such goods indicates the presence of wealthier people. Unfortunately it is surprisingly difficult to get clear evidence of the relevant price differentials for ceramic wares in particular markets even as late as 1700. It does seem clear that Tin Glazed Wares and Stoneware were significantly more expensive than plain Earthenwares throughout the century.

A British government discussion paper of 1696 argues that, if Earthenware were taxed, "Taxing the Poor" could be avoided by exempting "ordinary earthen Dishes, Plates, Cups, Porringers, Pipkins, Pitchers and Chamber-pots of the

ordinary yellow and black colour..." (Anon. 4/4/1696). Prices for such plain wares are not listed but what seem to be wholesale prices for many other wares are given. These suggest that painted or coloured Tin Glazed Earthenwares cost about twice as much as plain white Tin Glazed wares and that Stoneware bottles varied in prices between these two ranges, depending on size.

It is difficult to say what the retail price of these goods would have been. Assuming a retail mark-up of 100% and minimal transportation costs, white Tin Glazed Earthenwares might have averaged about 10d per vessel in the region where they were produded. This cost (in London or Bristol) can be compared with the 4d per vessel average valuation for Clome or plain Earthenware in the inventory of John Terrill of Exeter who died in 1686 leaving, with a large estate, "Two basins, 2 candlesticks, 7 dishes, 10 plates, 7 Jugs or bottles, three Cups & one Caudle cup all of Clome" valued at 11s (Cash 1966: 155).

Devon inventories of the early seventeenth century indicate a similar average nominal value of about 5d per vessel for plain Earthenware in this period[1]. The estate of

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[1] The seventeenth century was a period in which prices rose (Burnett 1969), generally faster than wages (Phelps-Brown and Hopkins 1956). If Coarse Earthenwares remained constant in nominal cost, their relative real cost probably fell. Price

Jane Sture who died in 1617 included "A half a Dosen of Sawcers" valued at 2s 2d. Ann Codner's estate included "One crocke one pottenger 2 sawcers & a buckett" worth 4s in 1622. Thomas Blampin in 1623 had "Earthen pannes & potts of earth" in his "Milkhowse" worth 2s (Cash 1966).

Plymouth Colony inventories of the first half of the century suggest that plain Earthenware vessels had a nominal value of about 6d there (Travers 1983[1]). An inventory of the later period indicates that this remained a typical value. Nicholas Snow died in 1677, leaving among his effects the following Earthenware:

1 earthen Iugg	1s
1 small earthen Iugg	6d
1 earthen Cupp & one earthen porring dish	1s
2 earthen pudding pans	8d
1 earthen pan	6d
an earthen pott	6d
1 earthen pott	4d

[Travers 1983]

It is clear that in both periods there were ceramic wares with much higher values. Although these are not

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comparisons among various wares are therefore only appropriate within shorter periods.

[1] Average of the values assigned "earthen platter" in the estate of Mary Ring 1631, "earthen pan, cup, porrenger" of Godbert Godbertson 1633, "4 earthen pots" of William Palmer 1637, "8 earthen panns & potts & tubbs an earthen bason" of John Jenney 1644 and "a little dish and earthen pots" of Stephen Hopkins 1644.

identified as such, vessel forms mentioned are consistent with Tin Glazed manufacture. Thus Steven Hopkins of Plymouth, who died in 1644, left "2 basens" valued at 6s, "a great dish" at 5s and "6 dishes" at 14s indicating an average value per vessel of about 3s 6d (Travers 1983). Thomas Prence who died in the same colony in 1673 left ceramics valued as follows (excluding those interpreted as plain earthenware):

1 cracked platter	7s
2 platters	16s
3 platters	15s
2 smaller platters	6s
one at	4s
3 smale platters	5s
4 plates	9s
halfe a dozen of broad sawcers	5s
1 [B]uttor dish and three plates	7s 6d
3 Pye plates	9s
1 plate	2s
3 smale basons	5s

[Travers 1983]

At this later date the average value of these more expensive wares is again about 3s 6d.

If the Plymouth Colony inventories cited do record Tin Glazed wares in these cases it would indicate that the average Tin Glazed vessel was worth about 7 times as much as an average plain Earthenware vessel. If half of these more expensive goods were "painted" wares and half white wares and if the rough 2:1 cost ratio between these Tin Glazed wares indicated for London in 1696 held up in a

distant colony then white Tin Glazed wares would have been worth 4 to 5 times as much as plain Earthenwares. If such a ratio held in New England c. 1640-1680 it would probably be a good working figure for Newfoundland settlements like Ferryland and probably not far off for the West Country itself, where "Delft" was an import.

There were, certainly, other highly valued wares. These might be decorated but not Tin Glazed Earthenwares, as Jane Stures' Devon inventory of 1617 indicates by valuing jointly, at 30s, "3 basons & ewers whereof one of neld [pewter?] a nother of Carricke [Porcelain] and theother of outlandishe Clome" (Cash 1966). So Tin Glazed wares were not the only valuable ceramic. Nor were they significantly more valuable than some other "outlandish", ie. imported, wares. Their prices and indeed the prices of many decorated wares did run in the order of several hundred percent of the prices for plain Earthenwares. Beaudry et al. have argued that the wealthy in the seventeenth century did not generally use wares such as "Delft" in order to mark their status but the high cost of these wares makes it at least possible to say that the purchaser of such expensive wares had some discretionary income.

With such reflections in mind on the application of price scaling, trade analysis and dating we are in a

position to evaluate some of the hypotheses offered above by examining the occurrence of wares at Locus B.

Hypotheses: 1. Location of the Mansion House

If Locus B lies close to the Mansion House then some vessels in secondary deposition at Locus B are likely to have originated in the Mansion House, which was the residence of the provincial Gentry 1622-c.1675. Identified wares in such context should therefore include a relatively high proportion of expensive wares. Two different cost indicators were applied: non-West Country manufacture and presence of Tin Glaze. Analysis was restricted to Strata 2b and 2f since these are secondary deposits. Vessels identified by ware or form as having been produced after 1670 were excluded, since it is not certain that the Mansion House stood after 1675.

Computation indicates that 46% of the relevant vessels were "outlandish" non-West Country wares. Comparison with proportions of such wares at 13 Exeter sites c.1660-1720 in areas where the average number of hearths per household ranged from one to five indicates: 1. The proportion of "outlandish" wares at Ferryland Locus B is very high by Exeter standards, in fact it was only exceeded at one site (North Street). 2. "Outlandish" wares occur in proportions similar to that at Ferryland at only three sites, all

of them in areas of the city where the average number of hearths per household is four or more, a pattern associated with wealthier households (Allan 1984: 101). It is interesting to note that non-West Country wares comprise only 25% of the identified vessels from Stratum 3, which is interpreted as a primary deposit. This suggests that the high proportion of such wares in Strata 2b and 2f is not simply because Ferryland is outside the West Country.

Merida wares are much more common at Ferryland than at Exeter (cp. Allan 1984: 110) and in fact make up about 10% of both the Level 3 vessels and of those from 2b and 2f. Excluding Merida, which was a cheap and available ship's store for vessels calling at Iberian ports (see below, Hypothesis 9), non-West Country wares still made up 36% of the 2b/2f ceramic assemblage.

The proportion of Tin Glazed Earthenwares in Strata 2b and 2f can be compared with proportions at sites at Martin's Hundred Virginia c.1620-1645, and with proportions at a site component of 1638-1660 at St. Mary's City Maryland, as well as with the overall proportion for Exeter sites of the period 1640-1670 and Plymouth Castle Street c.1550-1750 (Table 12). These figures suggest that the proportion of Tin Glazed wares in secondary deposits at Locus B is

Table 12. Tin Glazed as a Percentage of All Vessels
Selected Seventeenth Century Sites
In Rank Order

SITE	DATES & CHARACTER	VESSELS	%TIN
Martin's 100 B	Domestic Unit, 1620-1640	n=194	8%
Ferryland B 3	Cookroom/ Forge, 1630-1640	n=32	9%
Martin's 100 H	Domestic Unit, 1620-1622	n=95	11%
Exeter Sites	Urban sites 1640-1670	n=329	12%
Plymouth, Castle Street	Urban sites 1550-1750	n=11072	14%
Martin's 100 A	Gentry Residence 1625-1645	n=126	17%
Ferryland B 2b,f	Secondary Deposit 1640-1670	n=78	18%
St.Mary's ST1-23	Gentry Residence 1638-1660	n=90	40%

Notes:

Martin's Hundred Sites B and H are interpreted as the residences of ordinary settler families. Site A is a group of structures including what is thought to be the residence of "Governor" Harwood (Noel Hume 1982, 1984: 657).

The Exeter sites include households in various areas.

Tha Plymouth Castle Street material is a large secondary deposit of mixed origin.

St. Mary's ST1-23 is "St. John's" the residence of Secretary John Lewgar in what was then the capital of the Colony of Maryland. It was large by colony standards and was used as an administrative meeting place (Stone 1974: 155).

Sources:

Martin's Hundred	Pittman n.d.
Exeter Sites	Allan 1984: 114, 133
Plymouth, Castle St.	Gaskell-Brown 1979: 3
St. Mary's City	My own count.

relatively high and typical of deposits from the large residences of colonial gentry, although it is not as high as the proportion at one such residence.

The proportions of non-West Country and of Tin Glazed wares at Locus B tend to confirm the hypothesis that this site is close to the Mansion House.

2. Strata 2b and 2f as a "Clean" Fill

If closely dateable wares and vessel forms from Strata 2b and 2f fall into a restricted period this would confirm the hypothesis that these strata comprise a "clean" or relatively rapid and homogeneous fill. Although Level 3 Strata are primary deposits they are a good example of "cleaness" in this sense: all identifiable wares were in production in the period 1630-1640 with the exception of two vessels. These are a magenta stained Westerwald Jug (#119) and a Staffordshire Slipware Jug or Cup (#73), both dated after 1650 and therefore very likely intrusive.

Of the 83 vessels identified in Strata 2b and 2f some 31 are "closely datable" in the sense that initial or terminal dates for production in the particular ware or style fall within the period 1620-1700 (Table 13). The proportions computed do not support the hypothesis of a "clean" fill but suggest instead that deposition at Locus B

Table 13. Distribution of Closely Dateable Vessels at Ferryland Locus B, Strata 2b and 2f by Period

DATING	% DATED VESSELS	% ALL	NUMBER
Before 1630	6%	2%	2
Before 1630-1640	3%	1%	1
Before 1640-1650	21%	8%	7
Before 1650-1670	6%	2%	2
After 1620-1640	9%	4%	3
After 1640-1650	13%	5%	4
After 1650-1670	13%	5%	4
After 1670-1690	15%	6%	5
After 1690-1700	6%	3%	2
After 1700-1720	9%	4%	3
TOTALS	101%	43%	33

Notes:

Two vessels (#30 and #95) are counted twice because their date ranges fall completely within the analysed period.

was more or less continuous from 1640 to at least 1700. It is possible that these figures are distorted by some kind of intrusive late component but this seems unlikely given the fairly even distribution of closely datable types through the century.

3. Dating the Strata 2b/2f Fill

If the 2b/2f fill occurred about 1640 then date ranges for vessels from these strata should overlap the period 1635-1645. The ceramic evidence suggests, however, that deposition at Locus B continued through the century. Computation does indicate that 33 % of closely datable vessels had terminal dates of manufacture in the years - 1630-1650 or initial dates of manufacture between 1620 and 1640. This suggests that a major phase of the deposition of Strata 2b and 2f did in fact occur about 1640.

4. Activity at Ferryland 1640 - 1675

If Ferryland was populous and active during the Kirkes' management of the fishery there, then material from these decades could be expected at sites convenient for fishing operations like the Pool. Ceramic datings tend to confirm a continuous and reasonably uniform occupation at or near Locus B from before 1630 to c.1700 with use of Feature 1 to c. 1640 and a subsequent period of secondary deposition from a nearby socially distinct dwelling.

5. Mediterranean Trade

If harbours on the British Shore were supplied primarily by fishing ships provisioned in the West Country then Mediterranean wares should occur in proportions similar to those at West Country ports. Occurrence in higher proportions could indicate supply by sack ships operating in the Newfoundland/ Mediterranean/ England trade.

Occurrence of Mediterranean wares as a percentage of all vessels at Ferryland Locus B is compared with occurrence at other sites in Table 14. These figures indicate that the proportion of such wares at the Ferryland site is within the range of occurrence at West Country sites. Note, however, that the very high representation of Merida ware at St. Andrews Street Plymouth is a result of strong occurrence in sixteenth century contexts. It is therefore possible that Mediterranean wares are relatively strongly represented at Ferryland compared to their average market share at seventeenth century West Country ports.

Note the strong representation of Iberian wares from H.M.S. Saphire which sank at Bay Bulls Newfoundland in 1696 (Proulx 1979). As observed in Chapter 6, Iberian "Olive Jars" were widely recycled in Anglo-America. Merida was, apparently, the standard table ware on Spanish ships (Hurst cited in Gusset 1978: 22) suggesting that it was

Table 14. Mediterranean and other Foreign Wares
As a Percentage of All Identified Vessels
Selected Seventeenth Century Sites

WARE	Exeter 1640 n=305	Plymouth Castle Street n=11072	Ferryland Locus B n=129	Plymouth St. Andrews (sherds) n=11585	Plymouth St. Andrews "vessels" n="5050"	Sapphire 1696 n=196
Porcelain	1.3	4.7	.8			
CSW	14.1	1.8	10.9	5.3	5.1	7.7
Italian	.3	1.9	.8	1.1	1.3	.5
"Olive Jar"	2.3	.2	2.3	1.5	1.4	5.6
Merida		2.4	8.5	14.4	18.7	24.0
Other Iber.		.4	[illegible]	.7	.9	
TOTAL MED.	2.6	4.9	15.5	17.7	22.3	30.1

Notes: The Plymouth excavations included deposits of 1500-1750.

Plymouth St. Andrews Street figures for vessels are my estimates based on the sherd accounts, adjusted in accordance with the sherd/vessel ratios for each ware indicated by Allan (1984: 102).

Sources: Exeter -- Allan 1984 microfiche: 45.
Plymouth Castle Street -- Gaskell-Brown 1979: 3-10.
Plymouth St. Andrews Streeet -- Fairclough 1979: 52.
Saphire -- Myles 1978a, 1978b.

economical, at least when purchased where it originated. The puzzle here is the high representation of this ware on a British naval vessel (Gusset 1978: 23). Its prominence in ceramic assemblages from a shipwreck, at a fishing station and from tenements close to the naval dockyards of a major port suggests that this ware was in wide use by mariners and their families and may have been imported in small private lots. As an explanation for the Merida at Ferryland this is really a reformulation of the hypothesis that Newfoundland harbours were supplied to some extent by sack ships but on the side, as it were, rather than at a commercial level. On this view the comparable rates of occurrence for Merida at maritime sites in Newfoundland and the West Country would result from similar patterns of direct private supply, rather than from Newfoundland's position at the nether end of a down-the-line trade.

6. Dutch Trade

If the Dutch sack ships that operated along the English Shore in the mid-seventeenth century did not regularly provision settlements then wares of Dutch provenance should be uncommon. Only one vessel from Locus B has been identified as Dutch, a Tin Glazed Plate (#106). Such wares, including similar vessels, were exported in great numbers to western England, especially in the first half of the seventeenth century. The Netherlands in fact dominated

the market in "Delft" until at least 1660 (Gaskell-Brown 1979: 12, Allan 1984: 103, 116). There is no reason to see the occurrence of such vessels at Ferryland as an indication of Dutch provisioning.

7. North Devon Commercial Dominance

If the North Devon ports of Barnstaple and Bideford increasingly dominated the provisioning of Ferryland and the other ports of the southern Avalon in the seventeenth century, as they seem to have intensified their prosecution of the seasonal fishery, the ratio of North Devon to other West Country wares should increase in later contexts. The major chronological boundary at Locus B is that between Levels 2 and 3, interpreted as c.1640. Computation indicates that 79% of the West Country vessels from Level 3 are North Devon wares (n=24) while the representation in Level 2 is 68% (n=44).

These results are difficult to interpret for two reasons, apart from North Devon's general success in marketing its ceramics (Chapter 6 above). First, the shift in function of Locus B from a Cookroom/ Forge to an area of secondary deposition, probably from a socially distinct structure, may skew comparisons across this shift. Second, an increase in North Devon activity in the Ferryland area is not documented until a later period.

Another occupation with major components dating from the 1660s and 1670s might provide better data. There is no ceramic evidence here for commercial dominance by the North Devon ports having increased around 1640.

8. American Trade

If trade with the American colonies was insignificant along the English Shore before the 1650s then American wares should occur only in post 1650 contexts. There are only two vessels from Locus B that are possibly Anglo-American: an Unknown Red CEW Holloware (#77) and an Unknown Red CEW Pot (#79). They were excavated from Strata 2b and 2f, which is interpreted as post 1640. The data is quite inconclusive but offers some confirmation of the hypothesis.

9. The Rise of the Truck System

If some form of truck system was beginning to operate on the English Shore by 1670 then the variety of wares in post 1670 contexts should be restricted compared to the range of wares in similar but earlier contexts, since supply of imported material culture at particular harbours would have been increasingly centralized. To test this hypothesis the datable vessels from Locus B were analysed into two overlapping classes: on the one hand those identified as having either an initial date of production before 1650 or a terminal date of production before 1670 and, on the other

hand, those with either an initial date of production after 1650 or a terminal date of production after 1670. These two classes were meant to represent vessels possibly in use before 1670 and vessels possibly in use after 1670. Assemblage variability was then compared.

The earlier group of 104 vessels included 22 distinct wares so that each ware was represented by an average of 4.7 vessels. The later, post 1670, group of 113 vessels included 17 distinct wares so that each ware was represented by an average of 6.6 vessels. This apparent decrease in variability suggests some restriction of choice in ceramic supply at Ferryland after 1670.

There are at least two skewing factors that should be taken into account here, however. The shift in function of Locus B might account for some of the decreased variability, although secondary deposits from a gentry residence such as the Mansion House could be expected to increase variability (Hypothesis 1, above). Besides this there is, in the later seventeenth century, an on-going increase in the commercial marketing of ceramics (Weatherill 1983). The interpretation of shifts in ware variability in this period at a particular site can only really be undertaken in the context of wide-spread shifts in variability which are beyond the scope of this study. The figures from Locus B may be worth

recording as a small contribution to such a larger study. The value of ceramic variability as an index of the penetration of the truck system remains uncertain. The present results are certainly consistent with a restriction of ceramic supply at Ferryland about the time of the earliest documentary references to a truck system on the English Shore.

Analysis of the occurrence of particular wares at Locus B has provided useful data regarding the probable proximity of the Mansion House, the dating of the fill strata, the possibilities of minor provisioning by sack ships and restriction of ceramic variability in the period in which the truck system was probably introduced. The analysis of the array of vessel forms uncovered at this structure will permit evaluation of further hypotheses.

CHAPTER 10

VESSEL FORM ANALYSIS

"Sea and Lande Provicion"

If ceramics are to be used to interpret activity at Early Modern sites attention must be paid to the function of vessels and this implies careful attention to vessel form. Form is normally the best indication we have of vessel function, with the relatively uncommon exceptions of use wear and food residues (Evans and Elbeih 1984). The researchers who refined the Chesapeake vessel form typology POTS argue that a typology based on the conceptual categories of contemporary vessel users is most likely to be "functionally sensitive" (Beaudry et al. 1983: 21). This seems at least like a good place to start.

We might expect differences between the use of ceramics in the growing settlements of the Chesapeake region and their use at Newfoundland fishing stations. Given the relatively simple class structure, the economic specialization and the partially seasonal character of the Early Modern occupation of Newfoundland it would not be surprising if the range of vessel forms in common use was restricted compared to the range at Chesapeake or other American colonial sites. Furthermore, given the differences in social and economic structure among these regions, it is

possible that particular vessel forms were employed with a vernacular emphasis dependant on local subsistence practices.

A functional interpretation of the ceramic assemblage so far excavated at Ferryland Locus B must be tentative. Materials from strata 2b and 2f seem to be in secondary deposition, probably from a gentry residence, possibly the Mansion House. Yet this other structure, implied by ceramic evidence, has not been located. It is not clear whether redeposition of soil matrices is in question or simply desposits of refuse in a slumping garden soil. Nor is it obvious precisely what sub-assemblage from the "fill" strata might reasonably be interpreted as having originated in the putative gentry residence. Interpretation of Strata 3a and 3b material found within the Feature 1 Cookroom/ Forge cannot be definitive for parallel reasons: the excavation of Locus B is not yet complete and most of Level 3 remains to be excavated[1].

We have, nevertheless, recovered enough ceramic data from Locus B already to make preliminary evaluations of some of the hypotheses proposed in Chapter 5 and in general to confirm the overall impression, suggested by the

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[1] As of June 1986.

analysis of wares in Chapter 9, that there is a social as well as a chronological distance between Levels 3 and 2. The analysis of vessel forms may indicate whether these levels are also functionally distinct.

Even a preliminary functional evaluation requires an engagement between the vessel form typology adopted in Chapter 7 above and the outline of subsistence offered in Chapters 3 and 4. The relationship between food and its consumers is to some degree expressed materially in the vessels used in cooking and serving, since these must suit conventions of cuisine and service or, in the American terminology, foodways (Anderson 1971, Deetz 1977: 46ff). The array of vessel forms normally in use in specific contexts is thus both an aspect of foodways and an element of material history what is archaeologically accessible. The normal patterns of ceramic use in Early Modern Newfoundland remain obscure but comparative studies and documents can help to put the growing body of archaeological data in perspective.

When colonies were a novelty for the English, advice was sought and offered on matters like provisioning. There are at least three extant suggested victualling lists for Newfoundland: Whitbourne's "Charge" (1622: 173-175) and the two separate and complementary lists supplied to John

Poyntz for Sir Henry Salusbury by John and Nicholas Guy (1626). With the Inventory of provisions left at Cupids in 1611 these documents suggest distinct patterns of vessel use "att sea" and "att the shore" as Nicholas Guy puts it. Furthermore, certain differences between John and Nicholas Guy's lists indicate they were compiled with different classes of colonist in mind.

Ceramics are not in fact a closed system of material culture. Archaeologists who actually excavate them from sites or metaphorically from inventories distort their original significance if they ignore the wooden, glass and metal vessels that constitute with ceramics the enduring material aspect of foodways and other economic or cultural systems (cf. G. Stone cited in Beaudry et al. 1983). The documents under discussion here will therefore be quoted extensively or at least extensively enough to include other vessels or utensils used with ceramics.

The "Invenntorie of what provision is Left at the English Coloni in Cupies Cove in the Newfound Lande" (Anon. 8/26/1611) is, presumably, a list of goods belonging to the Company for the use of 20 to 30 colonists and probably excludes some personal possessions. Among the items listed are:

> 3 brasse pottes 2 pannes 2 kittells & one posnett [pipkin] ...

one still...
a kinterkin of pewter...
1 dozen of stackkettes & 2 dozen of bread boxes...
1 pestell & Morter... [Anon 8/26/1611]

Of the cooking and storage vessels, the pipkin and perhaps the pannes could have been Coarse Earthenware as could the still (cf. Noël Hume 1982: 101). The small barrel of pewter listed indicates that some of these early residents were eating and drinking from pewter plates and mugs rather than from wooden trenchers and staved vessels as their grandfathers would have (Anderson 1971: 238) and as their social inferiors may still have done. (Like many of the early plantations Cupids had a high proportion of craftsmen of middling status.) The "bread boxes" should probably be understood as lunch pails taking the form, common in Newfoundland until recent decades, of a small trunconical barrel. The meaning of "stackkette" is elusive but subsequent parallel references suggest that it refers to some kind of portable beverage container. Could it possibly be a misreading for "flaskette"?

Whitbourne's estimated victualling list of 1622 includes the following items for 40 men:

	li.	s.	d.
...Wood to dresse meate withall	001	05	0
One great Copper Kettle	001	00	0
Two small Kettles	002	00	0
Two Frying pans	000	03	4
Platters, Ladles, and Cans for Beere	001	00	0
A paire of Bellowes for the Cooke	000	02	0

Locks for the bread Roomes	000	02	6
Tap, Boriers, and Funnels	000	02	0
...Bolles, Buckets, and Funnels	001	00	0
Two brazen Crocks	002	00	0
...For Pots and liuer Mands	000	18	0
...Flaskets, and bread boxes	000	15	0

[1622: 173,174]

Most of Whitbourne's suggested cooking equipment was metal, judging by the estimated costs. Prying pans or skillets were manufactured in Earthenware but the 1s 8d budgeted here is too high for such vessels (see Chapter 9). He appears to have assumed that boat crews would eat from wooden trenchers, if we read "to dresse meate" as "to set out food".[1] "Platters" and "Cans for Beer", probably for communal service, could have been pewter or ceramic, although the listing with "Ladles", very likely of pewter, suggests the former. Dishes and plates were often made of pewter and there is evidence that at this time pewter mugs occupied an important part of the niche in the market for drinking vessels (Allan 1984: 101).

The bowls and buckets are listed in the context of tar, oakum and canvas and probably were not cooking or eating vessels, although they existed in ceramic forms. The listing of pots with baskets for cod livers likewise makes a culinary function improbable, The "Flaskets" listed with

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1 See OED on "dress" and "meat" and cf. GB 2/10/1634, quoted above, p. 90. Possibly he means "to salt meat" and refers to a wooden tub.

bread boxes would have been portable beverage containers for use of crewmen in the boats. If Whitbourne was allowing a bread box and flask for each of 8 boats and if the two sorts of container were worth about the same then a flask might have been worth about 1s, suggesting that they were not earthenware but stoneware or glass.

The "estimate for the victuals for 8 persons for a yeare to inhabite in New found lande" made in about 1626 by "Iohn Guy alderman of Bristol" (Poyntz 1626) was generous, at least in terms of quality. It includes sugar, 30 pounds of rice, currants, raisins and a number of spices, none of which occur on the other provisioning lists of this period and most of which were relatively costly (C.A. Wilson 1984: 262ff). The elder Guy may well have been suggesting to Sir Henry Salusbury what he himself might require in Newfoundland. In other words this list of provisions may include some material that Guy saw as appropriate for a gentle household rather than for servants of boats crews. Among his suggestions are:

> trenchers, platters, candle stickes
> cans, taps, canndells, lanternes,
> dishes, bowles, spoones etc
> A crocke, a cawdron 2 brasse poundes
> a chaffingedish a spice morter [Poyntz 1626]

Certain of the cooking vessels would have been easily obtained in ceramic versions: the chafing dish and the

"cawdron" or flesh pot. A "crocke" was not necessarily a ceramic vessel, especially in the West of England (OED). The mention of trenchers suggests, again, that boats crews were expected to eat from wooden vessels. Platters, candlesticks, mugs, dishes and bowls could have been easily obtained in metal forms but it is also possible that Guy would have expected some of these vessels to be ceramic. We should probably not ascribe any social significance to the metal/ceramic distinction at this time but the listing of non-wood forms confirms the suspicion that the elder Guy was thinking not merely of crew when he drew up his list.

His son Nicholas on the other hand, who actually supplied his list from Newfoundland, was clearly thinking of the specific needs of a fishing establishment like the one he had run for the preceeding 16 years and his suggestions were obviously meant for victualling boats crews. He listed supplies for 3 boats under two headings:

att sea...	
3 breadboxes and 3 flagen bottles of woode	2s 6d
... 3 buckettes and 3 boles	2s 6d
...att the shoare	
A trayne pail a bole and a funnell	2s
A kettle	16d
wooden platters 4 quarter Canns 4 bread basketts	3s
...Sawsers and dishes of wood	12d

[Poynt-z 1626]

Again "breadboxes" are associated with portable beverage containers "att sea" and one of each is allowed per

boat. Were "flagen bottles" actually made of wood or does wood refer to the breadboxes? Perhaps Nicholas was thinking of some form of case bottle. Since these goods were listed in the context of "Roapes for the 3 boates" and "fishinge-lines", it is clear that there existed a small system for transporting food on the daily expeditions of the boat crews. The valuation of about 5d per vessel suggests the "bottles" were either earthenware, small casks or very small stoneware vessels. From the context one would think the bowls mentioned were for marine use, perhaps bailing, and would likely be turned or carved wooden "boles".

Nicholas did not list any ceramic serving vessel forms except "quarter Canns" in his provisions for the shore station and explicitly suggested (communal?) wooden platters as well as saucers and dishes which might have been for individual servings. The "quarter Canns" would hold a quart each and four among a crew of 14 would have to be used communally. Again, these might sometimes have been ceramic vessels but normally at this time would have been metal. The bowl listed with the train pail and funnel could have been a ceramic vessel, perhaps in the form defined here as a milk pan, but is more likely to have been normally wooden. At any rate it was not for culinary use. The kettle would have been for cooking and might have been either a metal or a Coarse Earthenware Flesh Pot.

The documentary evidence suggests several patterns of vessel use in seventeenth century Newfoundland: culinary and non-culinary, at sea and on shore, for crewmen and for planters. This evidence is summarized in Table 15 together with the presence or absence of particular forms in the major levels of Locus B at Ferryland. The documented culinary and non-culinary ceramic use by the crew, as interpreted above, fit the array of vessel forms found in Level 3 quite well. The middle class or gentle culinary functions as interpreted do not predict all of the forms found in Level 2 but a combination of these with the documented crew functions predicts most of them.

Two of the exceptions, jug and pitcher, could be seen as the functional equivalent of "quarter Canns" and porringers could be covered by John Guys "dishes, bowles". This leaves a miscellany of milk pan, cup and chamber pot -- forms which are undocumented in early seventeenth century Newfoundland. Functionally, however, they are not difficult to fit into documented socio-economic patterns on the English shore. This is, essentially, what is attempted for the whole array of vessel forms recovered from Locus B in the second group of hypotheses proffered in Chapter 5.

Table 15. Documented Vessel Forms
Interpreted by Functional Context
Compared with Vessel Forms Occuring at Locus B
Levels 3 and 2

FORM	CREW COOKROOM	CREW IN BOATS	NON-CULINARY	3	MIDDLE CLASS OR GENTRY	2
Pot			X	C	X	C
Jar	[X]		X	C	X	C
Lid						C
Bowl			X	C	X	C
Milk Pan			[X]			C
Pipkin	M			C	X	C
Flesh Pot	M			C	M	C
Pan					X	C
Dish					M	C
Plate	W			C	M	C
Saucer	W			C		C
Porringer				C		C
Cup				C		C
Mug					M	C
Drink Pot	X			C		
Jug				C		C
Bottle		X		C		C
Pitcher						C
Still					X	
Chamber Pot						C

Notes:

C = Ceramic M = Metal W = Wood X = Unspecified

Jar is tentatively included on the basis of John Guys' listing of "sallet oyle 6 gallons".

Milk Pan is tentatively included as a variant of Bowl.

Sources:

Anon. 1611, Whitbourne 1622, Poyntz 1626 as interpreted in the preceeding pages.

Comparative Sites

The attempt to relate the rate of occurrence of particular vessel forms to the social or economic functioning of a site may be open to the same criticism of unidimensionality that can be levelled at some treatments of status analysis (Beaudry et al. 1983: 22). Functional analysis can be multi-dimensional however. This is probably best reinforced by attention to a variety of comparison sites and such an approach has been adopted here. The analysis of vessel forms at Locus B was undertaken in the context of analysis of the array of forms at six comparative Early Modern sites in the New World: Martin's Hundred Sites H, B and A in Virginia, St. Mary's City ST1-23 and ST1-13 in Maryland and the wreck of H.M.S. Saphire at Bay Bulls, Newfoundland[1]. A brief account of each of these sites is therefore relevant.

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1 My original intention was to include several of the New England sites discussed by Deetz (1973) including if possible C-14 (Edward Winslow farmhouse Plymouth 1635-1650), C-1 (R.M. farmhouse Plymouth 1635-1675) and C-2 (Josiah Winslow farmhouse Marshfield 1650-1700). Unfortunately these collections turned out to be scattered (Yentsch 1981) and the remains, stored at Plimouth Plantation, undocumented with no indication of what proportion of the original collection they represent. Much of the information from the original excavations is publishable (Beaudry and George 1986) but the present condition of the collections does not permit analysis of the kind attempted here.

Martin's Hundred was an early English settlement in tidewater Virginia not far from Jamestown on a site that would later become Carter's Grove Plantation. It was excavated by the Colonial Williamsburg Foundation under the direction of Ivor Noël Hume in the late 1970s (Noël Hume 1982). Site H is a small house somewhat separate from the rest of the settlement built about 1620 and destroyed by Indians in 1622 (Noël Hume 1984: 674). Site B is a larger dwelling with an outbuilding, also isolated, in use c.1620-1640 (Noël Hume 1984: 658). The occupants of these dwellings might be thought of as yeoman farmers. Site A is a complex of at least nine structures representing several occupations c.1625-1645 including a large dwelling interpreted as the residence of Governor William Harwood (Noël Hume 1984: 653-657). Artifacts from these sites are conserved at Colonial Williamsburg, Virginia.

St. Mary's City has a direct historical connection with Ferryland, being the place the Calvert family eventually settled and the first capital of their new colony. Several sites have been excavated over the last 15 years for the St. Mary's City Commission by G.W. Stone, H. Miller and others. Archaeological investigations at ST1-13, the Village Centre, have located the Country's House which was built as the residence of Governor Leonard Calvert in 1634 and which later became the administrative centre of the

colony (H. Miller 1983, 1986) but excavation of this large gentry residence has not, to date, been extensive enough to make useful systematic comparisons with the Ferryland material, tempting as these are given the direct historical connection. Comparisons were drawn with another locus at ST1-13 and another site.

ST1-23 is "St. John's" the residence of John Lewgar, built in 1638 and probably in use until after 1700 (G. Stone 1974: 149). Large by colonial standards it was used as an administrative centre as well as being the core of an extensive tidewater farm. (G. Stone 1974: 155). Smith's Ordinary (ie. Tavern) at St1-13 operated 1667-c.1680 (H. Miller 1986b). As well as the tavern this locus includes "The Lawyers' Pit", a secondary deposit thought to be refuse from lawyers' premises of the 1670s. Materials from these sites are now stored at the Archaeological Laboratory of Historic St. Mary's City, Maryland.

The Saphire was a fifth-rate British frigate scuttled in the harbour of Bay Bulls Newfoundland during a French attack in 1696 (Proulx 1979, Myles 1985). The wreck was sampled by the Newfoundland Marine Archaeology Society (NMAS) in 1974 (Barber 1974) and partially excavated and stablized by Parks Canada in 1977 (R. Grenier, personal communication 1985). The material collected by NMAS is in

the collection of the Newfoundland Museum, that excavated by Parks Canada is now conserved at Ottawa. As I was unable to locate a catalogue of the former collection it is the latter which is considered here.

Tables 16 to 21 are vessel form/ ware matrices for each of the comparison sites. Chapter 9 has already referred to the percentage occurrence of particular wares at some sites but I have chosen to present the matrices here because the functional analysis of vessel form requires an attention to the array of types at one site in a way that most ware analysis does not. With the kind cooperation of the excavators I was able to examine the collections of sherds and reconstructed vessels from the comparison sites and to compare these with their original catalogues. This reexamination of the artifacts permitted a translation of these catalogues into the vessel typology proposed in Chapter 7. Thus analyzed, these assemblages are more or less co-mensurable and comparable to assemblages from Ferryland Levels 3 and 2 with respect to the percentage distribution of vessel form and function (Tables 23 and 24). With this data assembled it is possible to evaluate the remaining hypotheses from Chapter 5.

Table 16. Vessel Forms and Wares
Minimum Number of Vessels and Percentage of Total
Martin's Hundred, Site H Dwelling, c.1620-1622

VESSELS	TIN	LOCAL	WEST	OTHER WARES	TOTAL	%
Pot		4	9	7 Most European	20	21
Jar				1 Spanish CEW	1	1
Lid		1			1	1
Bowl		1			1	1
(Milk)Pan		13			13	14
Pipkin		12	1		13	14
Flesh Pot		1		1 Colonial CEW?	2	2
Dish&Plate	5	16		2	23	24
Porringer	1	1			2	2
Cup	1	4			5	5
Mug (Jug?)	1	3			4	4
Jug		1		1 Frechen CSW	2	2
Bottle				4 Frechen CSW	4	4
Chamber Pot		1		1 Colonial CEW	2	2
Drug Pot	1				1	1
Fuming Pot	1				1	1
TOTALS	10	58	10	17	95	99
PERCENT	11	61	11	18	101	

Notes: Pots may include Tall Pots.

For abbreviations see Table 22.

Sources: Pittman n.d. with my own examination of restored vessels.

Table 17. Vessel Forms and Wares
Minimum Number of Vessels and Percentage of Total
Martin's Hundred, Site B Dwelling, 1620-1640

VESSEL	TIN	LOCAL	WEST	OTHER WARES	TOTAL	%
Pot		16	4		20	10
Tall Pot			2		2	1
Jar				1 Spanish CEW	1	.5
Lid		1			1	.5
Bowl	1	14			15	8
(Milk)Pan		24			24	12
Pipkin		25	2		27	14
Flesh Pot		1			1	.5
Dish	1	27	14		42	22
Plate	4	5	4		13	7
Saucer	1				1	.5
Porringer	1	8			9	5
Cup	1	14			15	8
Mug		1	1		2	1
Drink Pot		1			1	.5
Jug		5		2 Westerwald CSW	7	4
Chamber Pot		6			6	3
Drug Pot	6				6	3
Fuming Pot				1 S. White CEW	1	.5
TOTALS	15	148	27	4	194	101
PERCENT	8	76	14	2	100	

Notes: Pot may include Tall Pots.

Sources: Pittman n.d. with my own examination of restored vessels.

Table 18. Vessel Forms and Wares
Minimum Number of Vessels and Percentage of Total
Martin's Hundred, Site A, Gov.Harwood's (?) 1625-1645

VESSELS	TIN	LOCAL	FRECH	WWALD	OTHER WARES	TOTAL	PERCENT
Pot		7			5 European	12	10
Jar					1 Spanish CEW	1	1
Lid		2			1 S. Whiteware	3	2
Bowl	5					5	4
Pipkin		18			1 S. Whiteware	19	15
Pan/Milkpan		29				29	23
Dish&Plate	8	10			1 N. Ital Slip	19	15
Saucer					2 S.White &'"	2	2
Porringer	1	6				7	6
Cup		7				7	6
Mug			1	2		3	2
Jug				2		2	2
Bottle	3		4			7	6
Alembic		1				1	1
Chamberpot		3	1	1		5	4
Drug Pot	4					4	3
TOTALS	21	83	6	5	11	126	102
PERCENT	17	66	5	4	9	101	

Notes: Pot may include Tall Pots.

Sources: Pittman n.d. with my own examination of restored vessels.

Table 19. Vessel Forms and Wares
Minimum Number of Vessels with Percentage of Total
Saint Mary's City, Sec. Lewgar's, Phase 1 1638-1660

VESSEL	TIN	DUTCH	WHITE	MICA	RED	OTHER WARES	TOTAL	X
Pot		1	1	2	3	1 Norman CSW	8	9
Lid		1					1	1
Bowl	2		1	1	1	1 Local?	6	7
Milk Pan		15		2	2		19	21
Pipkin			5				5	6
Pan		1			2		3	3
Dish	8						8	9
Plate	18						18	20
Saucer		2				1 Porcelain	3	3
+ Flatware	3			1			4	4
+ Holloware	1			4			5	6
Drink Pot	2						2	2
Jug			1		1	1 Westerwald	3	3
Ewer						1 Westerwald	1	1
Drug Pot	2		1				3	3
Lamp						1 SW Mica?	1	1
TOTAL	36	20	9	10	9	6	90	99
PERCENT	40	22	10	11	10	7	100	

Note: The early or "Phase 1" ceramic assemblage analyzed here was identified primarily on stylistic rather than on stratigraphic grounds (H. Miller personal communication 1986).

Sources: Catalogue at Historic St. Mary's City and my own count.

Table 20. Vessel Forms and Wares
Minimum Number of Vessels with Percentage of Total
St. Mary's City, Smith's Ordinary, 1667-1680

VESSEL	TIN	LOC	SLIP	NDEV	WWALD	FRECH	OTHER WARES	TOTAL	%
Pot		17	1	4		1	5 Black glaze	28	11
Jar							1 Spanish CEW	1	.4
Lid	4							4	2
Bowl		10	3				9 Merida	22	9
Milk Pan		10		8			3 Black glaze	21	9
Pan		2						2	1
Dish	12	1	7	1				21	9
Plate	32	1	2	2			1 N.Ital Slip	38	16
Saucer	1							1	.4
+Flatware		1						1	.4
Porringer		1		1				2	1
Basin	11							11	4
+Holloware			6					6	2
Cup		21		1			1 S.White Bod	23	9
Mug		1			3		1 Brown mott.	5	2
Drink Pot		1			1			2	1
Jug		1	1	1	5	1	3	12	5
Bottle			1		2	11		14	6
Ewer					1			1	.4
Pitcher		21		1				22	9
Punch Bowl	4							4	2
Drug Pot	2							2	1
Tiles	2							2	1
TOTALS	68	88	21	19	12	13	24	245	102
PERCENT	28	36	9	8	5	5	10	101	

Notes: As well as materials associated with the tavern itself the assemblage also includes materials from a refuse pit believed to be associated with lawyers' premises.

Sources: Catalogue at Historic St. Mary's City and my own count.

Table 21. Vessel Forms and Wares
Minimum Number of Vessels with Percentage of Total
H.M.S. Saphire, Sunk at Bay Bulls Newfoundland, 1696

VESSELS	TIN	MERIDA	N DEV	STAFF	OTHER WARES		TOTAL	%
Pot		5	5		4	(2) S. Somerset	14	7
Tall Pot			2				2	1
Jar		4			11	Span. Heavy CEW	15	8
Lid		2					2	1
Bowl	2	18					20	10
Milk Pan		17					17	9
Pipkin			6		1	S. Whiteware	7	4
Flesh Pot			1				1	.5
Pan		19					19	10
Dish			9	1			10	5
Plate	4		5		1	N.Ital.Slipware	10	5
Saucer	1						1	.5
+Platware	11			1			12	6
Porringer					1	French CEW	1	.5
+Holloware	5						5	3
Cup		4					4	2
Mug				2	5	Westerwald CSW	7	4
Jug	1	1	1	1	1	French CEW	5	3
Bottle	1	22			9	(5)Frechen CSW	32	16
Ewer					1		1	.5
Chamberpot	2						2	1
Drug Jar	7						7	4
Ink Bottle					1	Normandy CSW	1	.5
ChafingDish			1				1	.5
TOTALS	34	92	30	5	35		196	102
PERCENT	17	47	15	3	18		100	

Note: The assemblage analyzed here is that excavated by Parks Canada.

Sources: Gusset 1978, Myles 1978a, 1978b, 1981, my own examination.

Table 22. Abbreviations Used in Vessel Form Matrices

ABBREVIATION	WARE DENOTED
Frech, Frechen	= Frechen Style Brown Salt Glazed CSW
Local	= Chesapeake Area CEW
Mica	= Brown Glazed Micaceous CEW
NDev	= North Devon CEWs
N.Ital Slip	= North Italian Slipped CEW
Norman	= Brown Normandy CSW
Red	= Cheasapeake Area Red CEW
Slip	= Colonial Slipped CEW
S.Somerset	= South Somerset CEW
Staff.	= Staffordshire and Bristol Slipped CEW
S.White,White	= Southern White Bodied CEW
SW Mica	= South West Micaeous CEW
Tin	= Tin Glazed Earthenwares
Wwald, Westerwald	= Westerwald Grey Salt Glazed CSW

Table 23. Percentage Distribution of Vessel Forms Selected Seventeenth Century Sites

	MARTIN'S HUNDRED			ST. MARY'S		HMS	FERRYLAND		
	Site H	Site B	Site A	Lewgar	Smith	Sap-	3	2	362
	1620	1620	1625	1638	1667	phire			
VESSEL	-1622	-1640	-1645	-1660	-1680	1696			
Pot	21	10	10	9	11	7	6	11	9
Tall Pot		1				1	27	10	14
Jar	1	.5	1		.4	8	3	4	4
Lid	1	.5	2	1	2	1		1	1
Bowl	1	8	4	7	9	10	3	4	4
Milk Pan	14	12	23	21	9	9		6	5
Pipkin	14	14	15	6		4	12	9	9
Flesh Pot	2	.5				.5	6	1	2
Pan				3	1	10		4	3
Dish		22		9	9	5		9	6
Plate		7		20	16	5	8	4	5
Saucer		.5	2	3	.4	.5	2	3	2
+ Flatware	24		15	4	.4	6			
Porringer	2	5	6		1	.5	3	5	5
Basin					4				
+ Holloware				6	2	3	1		1
Cup	5	8	6		9	2	9	9	9
Mug	4	1	2		2	4	4		3
Drink Pot		.5		2	1		3		1
Jug	2	4	2	3	5	3	6	6	6
Bottle	4		6		6	16	12	10	10
Ewer				1	.4	.5			
Pitcher					9			1	1
Punch Bowl					2				
Alembic			1						
Chamber Pot	2	3	4			1		1	1
Drug Pot	1	3	3	3	1	4			
Fuming pot	1	.5							
Tiles					1				
Chafing Dish						.5			
Lamp				1					
Ink Pot						.5			
TOTALS	99	101	102	99	102	102	103	98	101

Note: Pots at comparison sites may include Tall Pots.
Sources: Tables 9-11 and 16-21.

Table 24. Percentage Distribution of Vessel Functions Selected Seventeenth Century Colonial Sites

VESSEL	MARTIN'S HUNDRED H 1620-1622	B 1620-1640	EXETER A 1625-1645	Sites 1600-1650	ST. MARY'S Lewg. 1638-1660	Smith 1667-1680	HMS Saphire 1696	FERRYLAND 3	2	3&2
Storage	23	12	13	13	10	13	17	36	26	28
Preparation	1	8	4	18	7	9	10	3	4	4
Dairy	14	12	23	2	21	9	9		7	5
Cooking	16	14	15	11	9	1	14	18	13	15
Food Service	26	34	22	16	42	33	20	12	20	18
Beverage Service	16	13	15	20	7	34	25	30	29	29
Health	4	7	7	8	3	1	5	0	1	1
Other			1	10	1	1	1		1	1
TOTALS	100	100	100	98	100	101	101	99	101	101

Notes:
Storage = pot, tall pot, jar, lid
Preparation = bowl
Dairy = milkpan
Cooking = pipkin, flesh pot, pan
Food Service = dish, plate, saucer, porringer, basin
Beverage = cup, mug, drink pot, jug, bottle, ewer, pitcher, punch bowl
Other = alembic, chamber pot, fuming pot, tiles chafing dish, lamp, ink pot

Allan's "bucket handled pot", "local jar" and "cistern" counted as pots, pan as milk pan, small bowl as pan.
There is a difficulty with Allan's figures for Exeter here. Percentages for local wares 1600-1650 total 113%! These have been adjusted proportionately here.

Sources: Table 23, Allan 1984 microfiche: 43.

10. Locus B as a Cookroom

If Locus B was used before 1640 as a Cookroom then identified vessels of the lower strata should include a high proportion of storage, food preparation and cooking vessels. Recalling that Cookrooms were not exactly kitchens but kitchen/ cafeterias we might be tempted to count serving vessels as well but the documentary record suggests that serving vessels for crewmen were normally wooden.. The ceramic data considered are therefore restricted to the narrower functional group.

Computation indicates that 57% of the vessels from Level 3 are functionally related to food storage, preparation or cooking. The only remotely comparable proportions among the comparison sites occur at Martin's Hundred where such vessels represent 40%, 36% and 32% of the assemblage at Sites H, B and A respectively and at the Exeter sites of 1600-1660 where such vessels comprise 42% of the total, a figure very close to the 44% rate for Level 2 at Locus B. If we take 30-45 % as representing average contemporary rates of occurrence in functionally mixed assemblages, a rate of 57% strongly suggests that the storage and preparation of food was an important activity at Locus B until 1640.

The low proportion of ceramic serving vessels in Level 3 (12%) could be understood as a reflection of the low socio-economic status of mariners. Although this proportion is lower than in the mixed urban sites of Exeter in this period (16%) and in the later maritime context of H.M.S. Saphire (20%) the difference is not enough to account for the high proportion of food storage, preparation and cooking vessels in the Feature 1 "Cookroom".

11. The Managerial Reorganization of 1638

If Ferryland underwent a managerial reorganization in 1638, then occupations should be initiated, abandoned or undergo a change in function at this date or soon afterwards. Almost all the data from Locus B point in this direction, including evidence that the Feature 1 Room was dismantled and the Feature 1b Forge ceased operation at this time. If the function of Locus B shifted, this should be reflected in some differences between Levels 3 and 2 in the function of ceramic vessels.

In fact a distinct shift in the proportions of the various functional groups is evident when the Level 3 and Level 2 assemblages are compared. Only the beverage service group shows no significant change. Otherwise all groups show some change, notably a drop in the rate of occurrence of food storage and cooking vessels, a rise in

the rate of occurrence of food service vessels and the appearance for the first time of dairy-related forms. The secondary deposition of Strata 2b and 2f fill from a nearby gentry residence would be enough to account for these shifts in the functional make-up of the Level 2 assemblage if we accept, as seems likely, that a wider range of activities would be carried out with ceramic vessels at such a residence. The ceramic data suggest, in other words, a functional as well as a social distance between the Feature 1 Cookroom/Forge and the posited Mansion House. If activities such as cooking, eating or drinking continued to be carried out at Locus B these could easily be masked by the accumulation of secondary deposits and could be detected from ceramic data only by comparison with deposits associated solely with the Mansion House.

12. Dairying

If Ferryland's subsistence economy involved dairying, then vessel forms related to dairying such as milkpans and guttered dishes should occur in food preparation areas. In fact no dairy related forms have been identified to date from Level 3 and the rate of occurrence in Level 2 is low (7%). Some of the 6 milkpans recovered from Level 2 could have had other non-dairy or even non-culinary uses. This is suggested by the documentary record and also by the

presence of "milk" pans on the Saphire -- Merida vessels which presumably functioned in this context as bowls.

The North Devon Guttered Dish (# 21) seems, however, like good evidence of dairy-related activities and, given the historical evidence that Ferryland planters had cattle, milkpans probably reflect in part this aspect of subsistence. Although the rate of occurrence of dairy vessels is higher than the 2% rate at urban sites of the period in Exeter, it is much lower than contemporary rates in colonial America. At the residential Chesapeake sites examined, such forms average about 18% of assemblages and they predominate in contemporary New England assemblages (Deetz 1973: 26). There is no evidence for dairying at the Feature 1 Cookroom/ Forge but there is ceramic evidence that such activities were carried on, at least after 1640, at the locus of activity, tentatively identified as the Mansion House, from which the Strata 2b and 2f fill originated.

13. Storage and Shipping of Fats

If the residents of the English Shore depended on imported foods like fats, vessel forms related to the storage and shipping of such foods should occur frequently in food preparation areas. Pots were widely used for the storage and shipping of food, notably butter, and North

Devon Tall Pots in particular were frequently used in this way not only by the merchants of North Devon but also by victuallers in ports as distant as Plymouth (Grant 1983: 92-98). "Olive" Jars were, as we have noted, frequently used for storage and shipment of olive oil as well as other foods. Thus the proportion of Pots, Tall Pots and Jars in an assemblage should provide an index of dependence on the importation and storage of foods, especially fats.

Storage containers are much more common at Locus B than at most comparison sites. They represent 36% of the Level 3 assemblage and 26% in Level 2, compared with proportions ranging from 10 to 13% at most sites. Only the early c.1620 residential site H at Martin's Hundred and the naval vessel H.M.S. Saphire appear nearly as dependent on stored foods: the proportion of storage vessels at these sites is 23% and 17% respectively. This high proportion of storage vessels in Level 3 might be seen as accounting itself for the high proportion of vessels interpreted above as indicating that Feature 1 was a Cookroom (Hypothesis 10). Certainly this is part of the story but the proportion of both storage and cooking vessels falls sharply between Levels 3 and 2 indicating some functional shift at this time. Furthermore while the storage/ preparation/ cooking proportion in Level 2 is quite comparable to rates else-

where, the storage component remains high, suggesting that there are at least two distinct factors at work here.

The ceramic evidence strongly suggests that the inhabitants of Ferryland were unusually dependent on imported foods, probably butter and oil. This should not surprise us, given that fats are missing in the local components of a diet based on bread, fish, turnips and greens. The occasional "fatt hog" would have been the only substantial local source of this major nutritional requirement.

14. Health

If the seventeenth century inhabitants of the English Shore were healthy compared to their contemporaries then health-related vessel forms should make up a low proportion of vessels at sites like Ferryland. Health-related vessels can be taken to include Drug or Ointment Pots, Fuming Pots used to fumigate sickrooms (Noël Hume 1982: 195) and Chamber Pots used primarily by invalids in the early seventeenth century (Amis 1968).

There were no health related vessel forms in Level 3 and only one, an English Tin Glazed Chamber Pot (# 97), in Level 2. The rate of occurrence of health-related forms for Ferryland Locus B or even for Level 2 in particular is thus under 1% . This compares favourably with the rates at

residential sites in the Chesapeake region which range from 3% to 7% and very favourably with the 8% rate at Exeter sites of the period. The virtual absence of health-related vessel forms at Locus B supports the view that Newfoundland populations of the period were relatively healthy. This may reflect in part an under-representation of the elderly, resulting from the practice of retiring to the old country, but it also probably reflects the advantages to health of isolation and a generally moderate climate.

15. Alcohol

If alcohol was consumed by maritime communities in relatively large quantities, then suitable serving vessels should form a high proportion of ceramic vessels at maritime sites. There is no way to distinguish between vessels used for alcoholic and non-alcoholic beverages. Thus all beverage service forms must be counted. High rates of occurrence should indicate high alcohol consumption, if alcoholic beverages were not simply a substitute for water but an addition to total beverage consumption. Any positive relationship between the rate of vessel breakage and the level of alcohol consumption further validates the rate of occurrence of beverage service vessels as an index of alcohol consumption.

Drinking vessels are very strongly represented in both levels of Locus B, constituting in fact 29 or 30% of the assemblage in each case. This high proportion is matched among the comparison sites only at Smith's Ordinary where they make up 34% of the assemblage. At the Chesapeake residential sites proportions range from 7 to 16% ; at the mixed urban sites of Exeter such vessels account for 20% of all ceramics. It is noteworthy that the representation of drinking vessels was also high on board the Saphire, where 25% of all vessels fall into this category. The ceramic evidence from both Locus B and the Saphire thus confirms that mariners were avid consumers of alcohol.

If we were to look strictly at the proportion of drinking vessels at Locus B in the light of the evidence from Smith's Ordinary we might be tempted to conclude that the Feature 1 Room was a tavern and that Strata 2b and 2f were secondary deposits from a similar, later and perhaps more up-market amenity. Documents make it abundantly clear that cookrooms and planter residences were both actually used in this way (Cruse 1667) and David Kirke himself is frequently accused of "settinge up ... tavernes and tippling houses" (Plymouth Merchants 3/24/1646). Put in this perspective cookrooms were the scene of at least four important activities: food storage, food preparation, eating and drinking. We need not choose between a func-

tional interpretation of Feature 1 as a sort of cafeteria and interpreting it as a kind of tavern; it may have been both these things and more.

Functional analysis of the array of vessel forms at Locus B and comparison with other Early Modern sites has supported several hypotheses about this site and about life in seventeenth century Newfoundland. Although there is no doubt from other archaeological evidence that Locus B was once used as a forge, the ceramic evidence strongly suggests that typical cookroom activities including drinking were also carried on. Ceramic data also support the view that there is some functional distance between assemblages pre- and post-dating 1638 as well as confirming that some dairying was carried out. Functional analysis furthermore tends to confirm the dependence of residents of the English Shore on imported fats, as well as their good health and their taste for alcohol. With the analysis of wares, the analysis of vessel forms has made it possible to engage one class of archaeological materials with a number of significant questions about the economy and society of the Early Modern North Atlantic. Some suggestions for further study are made in the following concluding chapter.

CHAPTER 11

DIRECTIONS FOR FURTHER RESEARCH

The most obvious directions for further research at Locus B are down and across. Level 3 has not been fully excavated. Whether Feature 1 was originally a cookroom or a forge (Chapters 5 and 10), getting to the bottom of it is clearly worth doing as a way of exploring the working lives of early European residents of the New World. Further investigation around the Pool for the site of the Mansion House is indicated by analysis of ceramic wares (Chapter 9). This site would be worth locating not only for its associations with the Calverts and the Kirkes (Chapter 2) but also as the original administrative centre of Newfoundland and as the centre of a thriving fishing business (Chapter 3). Ceramic analysis could be a useful aspect of any comparisons with parallel colonial sites.

Our ability to interpret archaeological material from Ferryland persuasively would be considerably furthered by the excavation of other Early Modern sites on the English Shore. Many significant problems could then be explored, in part through ceramic analysis. These include not only questions overtly related to ceramic supply, such as the redistribution of North Devon wares, commercial dominance by particular West Country ports or the emergence of a truck

system (Chapter 4) but also the unusual population history of the Island, problematic residence patterns and subsistence studies (Chapter 3) as well as aspects of the consumer revolution, for example the trade in alcohol (Chapter 10). Before any local patterns emerge a number of sites will have to be located and tested. Documentary evidence indicates where early occupation sites are likely to be found (Chapter 1). The identification of Early Modern ceramic wares (Chapter 6) is probably the most cost-effective method of homing in on these occupations.

As excavations at sites like Ferryland Locus B are completed, a summary catalogue of ceramic vessels should be made available to other researchers in post-mediaeval archaeology. This should contain information about vessel form as well as identification of wares. Such information is expressed most usefully with reference to relevant published vessel typologies (Chapter 7). Chapter 8 is an attempt at such a catalogue and when the excavation of Locus B is complete it could be expanded to include additional vessels from Level 3.

The desirability of using a standard terminology for vessel form, or at least of offering a table of equivalents, cannot be stressed too strongly. The use of internally inconsistent, idiosyncratic, or just inexplicit formal

terminology has impeded comparative work on ceramics from Early Modern sites. Yet the analysis of the array of vessel forms at a particular site can be quite informative, in a comparative context (Chapter 10). Such analysis depends on the exchange of mutually comprehensible compilations. Ceramicists have developed a useful standard for illustration (which I have tried to emulate in Chapter 8); it is time they accepted (or were explicit about their rejection of) a descriptive standard.

At the 1986 Winterthur Conference, held recently in St. John's, Henry Glassie made a stimulating observation about the study of material culture: "description lives, theory dies." He went on to add that atheoretical description is almost inevitably inadequate. His point was that the enduring value of particular research is often, in retrospect, not the theory that sparked the original observations but the systematic description of a coherent assemblage of material created and employed by people at a particular time and place in an otherwise evanescent pattern. This seems to me to be as true of historical archaeology as it is of other studies in material culture.

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Abbreviations used in bibliographic references

ANL	Archaeology in Newfoundland and Labrador
BL	British Library
CHSAP	Conference on Historic Sites Archaeology Papers
CNS	Centre for Newfoundland Studies, MUN St. John's
CSP CO A&WI	Calendar of State Papers, Colonial Series, America and the West Indies 1574-1737. (GB 1860-1963.)
DCB	Dictionary of Canadian Biography, volume I.
GB	Great Britain
HA	Historical Archaeology
MHG	Maritime History Group Archive, MUN St. John's.
MUN	Memorial University of Newfoundland, St. John's.
PAC	Public Archives of Canada, Ottawa.
PANL	Provincial Archives of Newfoundland and Labrador, St. John's.
PMA	Post Medieval Archaeology
PRO CO	Public Record Office, London, Records of the Colonial Office
PRO HCA	Public Records Office, London, Records of the High Court of the Admiralty