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**Indian corn and Dutch pots: Seventeenth-century foodways in
New Amsterdam/New York City**

Fayden, Meta Patricia, Ph.D.

City University of New York, 1993

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Indian Corn and Dutch Pots: Seventeenth-Century Foodways in
New Amsterdam/ New York City

by

Meta Fayden

A dissertation submitted to the Graduate Faculty in
Anthropology in partial fulfillment of the requirements for
the degree of Doctor of Philosophy, The City University of New
York

1993

1993

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This manuscript has been read and accepted for the Graduate Faculty in Anthropology in satisfaction of the dissertation requirement for the degree of Doctor of Philosophy.

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Abstract

Indian Corn and Dutch Pots: Seventeenth-Century Foodways in New Amsterdam/New York City

by

Meta Fayden

Adviser: Professor Thomas H. McGovern

The foodways of every colonizing European group changed in the New World, but, before the changes can be assessed, it is necessary to know what foods and food-related artifacts were common and available in the mother countries. New York City began as a Dutch colony, and its foodways in the seventeenth century reflected this origin. This study is approached as a historic ethnography with two main centers of interest: first, the comparison of Dutch-American to Dutch foodways and, second, the exploration of how foodways changed after the British assumption of political power in 1664.

The study begins by describing Dutch seventeenth-century foodways using data from documents and genre paintings. New Amsterdam/New York City foodways are next reconstructed using documents and excavated artifacts; they are then compared to those of the Netherlands and to those of surrounding British colonies. Ceramics, because they are ubiquitous on archaeological sites and because the great majority of vessels functioned as food-preparation, food-service, or food-storage forms, are the artifact class that is emphasized. Excavated faunal material is also examined. The ceramics and bones are from three sites excavated in Lower Manhattan in the late 1970s and early 1980s.

The conclusion is that Dutch-American foodways, particularly in the forms and functions of food-related ceramics, are distinctive and different from British-American foodways, and that they remained recognizably Dutch well after the British annexation of the colony in 1664.

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CHAPTER 1: FOODWAYS AS AN ARCHAEOLOGICAL RESEARCH QUESTION

INTRODUCTION

The settlers who came to Manhattan Island between 1624 and 1730 included people of Dutch, English, Huguenot, German, Scandinavian, Sephardic, and African descent. These individuals developed a colonial society that retained characteristics of their Old World parent cultures, altered by mutual acculturation between Europeans, local Indians, and Africans, as well as by adaptation to new ecological conditions. The historical circumstances of New Amsterdam/New York City in the seventeenth and early eighteenth centuries are known, and its social structures and social institutions have been studied by many historians (Innes 1902, Van Rensselaer 1909, Shepherd 1926, Kessler and Rachlis 1959, Condon 1968, Archdeacon 1975, Kammen 1975, Rink 1986 and others), but the material culture of this period in the city is still, to a great extent, undescribed. This study is specifically concerned with that part of material culture that pertains to food preparation, service, consumption, and storage -- i.e., foodways (Deetz 1977:50). The underlying assumption is that ecological, economic, political, and social changes will be reflected in and will be influenced by changes in diet and food-related artifacts (Leone 1973:126, Moore and Keene 1983:iv). Foodways were chosen because it is a subject not systematically investigated by historians, and because a large percentage of recovered artifacts from seventeenth and early eighteenth century archaeological deposits in New York City are associated with cooking, storage, and consumption of food. The types of foods that people eat, by whom and in what manner food is prepared, and the symbolic as well as the nutritive value of foods are fundamental sources of information about any society; and, since food-related artifacts and faunal and floral remains are often the

largest classes of material culture recovered during excavations, foodways have been a productive area of study for archaeologists, especially those working in historic periods.

FOODWAYS STUDIES IN HISTORICAL ARCHAEOLOGY

The foodways of several European colonial groups living along the eastern seaboard of North America have been examined by historical archaeologists. The following review of these studies will define the similarities and differences among these groups in their patterns of adaptation and resource use and will provide examples of the types of questions that can be examined using faunal data and food-related artifacts. This review is organized by geographical area. It is followed by a synthesis of the conclusions about colonial foodways and a discussion of implications for foodways research in New York City. Some of the studies were concerned with changes that occurred during the establishment of viable colonies in the sixteenth and seventeenth centuries; others described the stable patterns that had developed by the eighteenth century. All the individuals within these colonial groups were subject to the processes of adaptation to a new environment and mutual acculturation with Native American -- and often other European and African -- peoples. Most groups at least attempted to maintain supply lines to Europe, but the extent to which each colony could depend on European supplies of basic foodstuffs varied widely, and the amount of colonial self-sufficiency increased greatly over time.

The term "foodways" became current in historical archaeology with the 1977 publication of James Deetz's In Small Things Forgotten, an examination of material culture in colonial New England. Quoting Jay Anderson's 1971 use of the term as applied to British yeoman diet, Deetz defined foodways as "the whole interrelated system of food

conceptualization, procurement, distribution, preservation, preparation, and consumption shared by all members of a particular group" (Deetz 1977:50). Deetz observed changes in food-related ceramic artifacts and in faunal materials that he attributed to changes in attitudes about food caused by the shift from a Medieval to a Georgian/Renaissance "mind set": the Medieval communal and organic view of the world was replaced by the more individualistic and nature-controlling Renaissance paradigm (Deetz 1977:36-40). As a result, according to Deetz, ceramics became much more common in everyday life, since each family member had his own individual tablewares and since ceramics became objects for display of socio-economic status (Deetz 1977:122-123). Similarly, meat was divided into cuts that were more suitable for individual portions than for communally-consumed dishes (Deetz 1977:124-125). Changes in ceramic usage and in methods of butchering and preparing meat were visible in archaeological assemblages (Deetz 1977:56-60). The adoption of Georgian/Renaissance cultural patterns by early eighteenth century New Englanders was part of the process of "reanglicization" of the American colonies -- i.e., the colonists, after a period of relative isolation during which their material culture diverged from that of England, went through a time of increased contact with the mother country that resulted in a closer congruence between the material culture of the two (Deetz 1977:38-39). In addition to ceramics and bones, Deetz based his conclusions on changes in gravestone and house styles, but, because the book was written for a popular audience, his argument was rather sketchy and he did not discuss other possible reasons, such as adaptation and acculturation, for the observed patterns. Regardless of its limited and popular nature, Deetz's work was the first widely read discussion of colonial foodways.

THE SOUTHEASTERN ATLANTIC COASTAL PLAIN

Eighteenth Century Florida

Steven Cumbaa's 1975 examination of resource use and diet in the Spanish Colonial period predated Deetz and, although it did not use the term "foodways" as defined by Deetz, it was the first to intensively study colonial foodways in North America. Cumbaa's focus was Spanish/Native American contact and acculturation in Florida with emphasis on subsistence patterns that had become established by the mid-eighteenth century. He was most interested in the sources of the Hispanic-American diet and used the concept of acculturation as an explanatory tool rather than as a concept to be investigated. Cumbaa chose to study diet because he considered that food "behavior [was] a point of articulation between cultural and non-cultural, or natural, systems" (Cumbaa 1975:x). His definition of foodways as "a term describing the selected transfer, acceptance, use, and preparation of various foodstuffs by a people of common cultural heritage" (Cumbaa 1975:8) showed his emphasis on contact between different peoples. His research goals were to examine precontact Spanish and Native American resource use and dietary patterns through documents; then, through analysis of archaeological collections of faunal material, to note the changes that occurred in both groups and to account for these changes.

Cumbaa began with an examination of Spanish dietary patterns through the use of modern secondary sources, seventeenth through nineteenth century travelers' accounts, and Cervantes' Don Quixote De La Mancha. After studying these sources, he developed seven "testable implications" based upon the proposition that the Spanish would try to replicate their accustomed patterns of resource use. They can be summarized as follows (Cumbaa 1975:46-48):

1. Similarities between Spain and the New World should be

observable in field size and shape, crops raised, and use of house lot space.

2. Percentages by species of animal bone recovered from New World sites should resemble known Spanish patterns.

3. Use of wild foods should be limited.

4. Fish bones and fishing equipment should indicate dominance of commercially obtained pelagic, deep water fishes.

5. The majority of cooking vessels should be "utilitarian earthenware pots" and bones should show little evidence of charring.

6. Lenten season diet, especially in lower class Catholic households, should be indicated by separate discard patterns for fish bones and possibly some floral remains.

7. Spanish settlers of higher social status should leave evidence of the comparatively greater proportion of meat and fowl in their diet.

These implications were tested through the examination of colonial documents and archaeological faunal collections. The results of the investigations supported some implications but refuted others.

The first implication was only partially supported (Cumbaa 1975: 192-193). The Spanish settlers did indeed try to grow Old World crops, but European grains did not thrive in Florida, and New World grains and other starches -- maize, cassava, and beans -- became dietary staples. Wheat was grown in rather small quantities on large ranches away from the coast, but most wheat was imported. European fruit trees and melons grew well and their fruits were part of the basic colonial diet. Evidence about field size and shape was limited, but the available documents supported the contention that Spanish agricultural techniques were employed. Thus a process of "fusion" had occurred whereby New World crops were grown using Old World agricultural technology. Where data about the utilization of space in

house lots existed, they contained "gardens, orchards, arbors, and yards and outbuildings for small domestic animals" (Cumbaa 1975:193).

The second implication was also only partially upheld (Cumbaa 1975:194-195). In Spain, the most important animal, in terms of its dietary and economic importance, was the sheep. Cattle, pigs, chickens, goats and a variety of domestic fowl were next in importance. Sheep did not survive and reproduce well under Southeastern coastal conditions; the climate was not optimal and they were vulnerable to attacks by feral Spanish dogs. Cattle and pigs, however, were capable of maintaining themselves to some extent and required less expenditure of effort by the settlers. Fowl, and occasionally pigs, were backyard animals as they had been in Spain. In colonial faunal assemblages, cattle contributed the largest amounts of meat to the diet, followed by pigs, chickens, and other fowl. Therefore, faunal assemblages from colonial sites did resemble Spanish patterns in the kinds of animals found, but their relative importance was changed. There were no local domestic animals to add to the colonial diet, but the Indians assimilated European domestic animals into their diet and subsistence activities. Acculturation in this instance was largely uni-directional.

The third implication, that wild fauna would not be extensively used and that the species utilized would be analogous to the deer, hare, and wild birds of Spain, was not proven correct (Cumbaa 1975:195-196). Wild animal and bird presence varied among the colonial sites, with the least amount at El Convento de San Francisco and the most at the St. Augustine house of a peninsular¹. Cumbaa interpreted this as indicating differing amounts of interaction between the Spanish and the Indians: El Convento

¹. A peninsular was a person born in Spain.

(located in the present-day city of Santo Domingo in the Dominican Republic) had the least contact with the Indians, since the native population had disappeared within two or three decades of Columbus's landing; the peninsular household, on the other hand, was able either to buy wild foods at the market in St. Augustine or to employ hunters to supply wild foods. With the exception of deer, the species present in the archaeological collections did not reflect those hunted in Spain. Instead they mirrored aboriginal patterns and emphasized local fauna like turtle, bear, opossum, manatee, and iguana.

Implication four, concerning fishing practices, was the least supported (Cumbaa 1975:196-198). Fish species utilized and fishing technologies in the New World were based upon Indian rather than Spanish practice. Deep water species caught with lines and different types of nets were preferred in Spain, but, in Florida and the Caribbean, estaurine and shallow water species were almost exclusively exploited. However, the Spanish practice of beheading and eviscerating fish shortly after they were caught, before they were sold, was probably followed. In St. Augustine, there was evidence from a 1763 map for a fishery using a weir. Weirs were an aboriginal fishing technique and Cumbaa postulated that the weir might have been a commercial fishery run by a mestizo² (Cumbaa 1975:197). Deep water fishing might have been abandoned because of a scarcity of boats and danger from French and English warships. The data about fish utilization, although they did not support the implication about the transfer of Spanish fishery techniques and preferences, were interpreted as another indication of acculturation and fusion of Spanish and Indian traits (Cumbaa 1975:198).

². A mestizo was a person of mixed Spanish and Indian ancestry.

The fifth implication proposed that most cooking vessels would be utilitarian earthenware pots and that bones would show little evidence of charring (charring of bone, especially of the ends, often indicates roasting or broiling rather than boiling). This implication was supported and the archaeological data were again interpreted as indicating fusion (Cumbaa 1975:198-199). The great majority of vessels were earthenwares, but the place of manufacture and ware type of these vessels varied: at El Convento, cooking vessels were coarse Spanish earthenwares; at most of the St. Augustine sites, they were locally made aboriginal San Marcos ware (Cumbaa 1975:198). Cumbaa also noted that there were "changes in the shape of aboriginal ceramic vessels reflecting European 'templates' " (1975:107), but he did not specify what these changes were and he did not illustrate or describe the shape or size of any ceramic vessels. Other types of excavated ceramic vessels included large jars for olives in brine, olive oil, and wine; vessels that were very common on Spanish colonial sites. (Although Cumbaa did not describe these vessels, they were very crude, large, earthenware jars with sloping sides and flat or rounded bottoms, and, although they could be re-used as storage vessels, they were probably at least semi-disposable containers -- see Chapter 6). The presence of these jars indicated import of familiar dietary staples from Spain or possibly from other Spanish colonies.

Lenten consumption and disposal patterns were the subject of implication six. The available archaeological and documentary data were scarce and neither supported nor refuted the implication. Fish, the most important Lenten source of protein, made up about ten percent of the "animal biomass" at all the St. Augustine sites (Cumbaa 1975:199). Some of the sites excavated prior to the 1970s had a low percentage of fish bone, but this apparent difference was probably due to less rigorous recovery techniques during

excavation (Cumbaa 1975:200).

The last implication, dietary indication of socio-economic status, proved to be difficult to assess (Cumbaa 1975:200). Only three archaeological collections from mid-eighteenth century sites in St. Augustine could be correlated with occupants of known socio-economic status, and there were many similarities between the faunal remains of the peninsular, criollo³, and mestizo households.

Cumbaa concluded that it would be very difficult "to discern archaeologically or analytically a difference between a puchero that contained one fish, a ham hock, and 80 percent corn, beans, and water, and an olla podrida which contained three fish, three ham hocks, and 40 percent corn, beans, and water. (Cumbaa 1975:201)

("Puchero" and "olla podrida" were stews that were distinguished from each other by the richness of their ingredients, according to Cumbaa 1975:41 and Reitz and Scarry 1985:131). However, Cumbaa noted that the peninsular household assemblage included cattle bones representing more meaty cuts than were present in the other two, as well as the remains of larger-sized fish. Cumbaa's explanation for the observed eighteenth century dietary similarities took into account the shortage of Spanish-born women in St. Augustine throughout its existence as a Spanish colony. He concluded that, since women were primarily responsible for procuring and cooking food, the presence of criolla, mestiza, and Indian women in households of men of varying status and ethnic origin "minimized status-related food preparation and dietary pattern differences" (Cumbaa 1975:201).

Cumbaa's study was noteworthy for his application of zooarchaeological analytical techniques to historical archaeology and for his integration of archaeological and documentary information. He emphasized the effects of

³. A criollo was a native-born person of Spanish descent.

adaptation and acculturation on foodways. The subsistence system he reconstructed was based on Old World agricultural techniques, New World cultigens, Old World animals, and New World fish.

Sixteenth Century Florida

Elizabeth J. Reitz (a zooarchaeologist) and C. Margaret Scarry (an ethnobotanist) also examined St. Augustine, but in an earlier period. Their work was intended as an interdisciplinary methodological contribution "intended to demonstrate the value of subsistence studies for historical archaeology" (Reitz and Scarry 1985:xi) through the example of the subsistence-oriented excavations and analyses at St. Augustine. Like Cumbaa, the authors found much evidence for adaptation and acculturation in the patterns of resource use at St. Augustine. Their research was limited to the first decades of settlement at St. Augustine and another sixteenth-century Spanish frontier outpost, Santa Elena on Paris Island near present-day Savannah, Georgia. The authors did not begin with any specific hypotheses or testable implications, but instead set out to demonstrate how a research project involving intensive and complementary use of documentary, archaeological, and ecological data could reconstruct the daily lives of a past society and could show how that society accommodated itself to its natural and cultural environment.

Since this monograph was in a large part a manual of how to conduct zooarchaeological and ethnobotanical research in historic periods, the authors began by describing the methodological concepts and excavation techniques necessary to gather information for subsistence studies. They next summarized the ecological and historical circumstances of St. Augustine and Santa Elena and briefly described the excavated contexts. The results of the study were presented as tables and lists of utilized species with explanatory

text and these data were integrated and synthesized with documentary and ecological information to recreate subsistence strategies in Spanish Florida.

Reitz and Scarry concluded that "Spanish colonists radically altered their foodways to survive in Florida" (Reitz and Scarry 1985:92). They reached essentially the same conclusions as Cumbaa and determined that environmental conditions and lack of reliable and frequent supplies from Spain or the Caribbean colonies led the Floridians to adopt a subsistence strategy similar in many ways to that of the aboriginal population. The authors saw patterned changes in the colonists' foodways: they abandoned resources not suited to their new environment; their agriculture focused on local plants, especially maize, beans, and squash, but Old World cultigens, notably fruits (that grew well under local conditions), were introduced along with a limited number of plants from other New Spain colonies; they exploited wild fauna, including fish, in the same manner as the local Indians; they kept only those Old World domestic animals that could exist with minimal husbandry efforts in the humid, forested environment; and they had "limited reliance" on imported foods, especially luxury items (Reitz and Scarry 1985:99).

The frontier setting and the socioeconomic status and ethnicity of the settlers were important factors in the development of this subsistence strategy. The frontier setting was important because it restricted the colonists' access to markets and because it greatly increased the risks involved in imported Spanish subsistence practices. Increased risk often leads to expansion of the resource base to include new animal and plant species; in effect, it results in the consumption of more local foods (Reitz and Scarry 1985:92). Local foods were incorporated into the diet through "substituting trade with local Indians for trade with New Spain" and by growing or stealing local

foodstuffs themselves (Reitz and Scarry 1985:92-93). Socioeconomic status and ethnicity were viewed by the authors as causes for variability within subsistence systems; i.e., as reasons for observed differences between diets as evidenced in archaeological collections from different sites and components within the region (Reitz and Scarry 1985:93). However, predicting how socioeconomic status and ethnicity would affect the archeological record was complicated because "different behaviors might result in similar archaeological deposits" (Reitz and Scarry 1985:93). Hunting activities, for instance, could lead to similarities between the faunal assemblages of low and high status households, but the lower status individuals probably hunted to supply basic dietary needs and the high status household probably employed a hunting specialist or hunted for recreation (Reitz and Scarry 1985:93). They did not make predictions based on ethnicity (but noted that ethnicity is often an intrinsic part of status) and summarized their observations and predictions about the effects of socioeconomic status on food consumption as follows:

1. richer households would have evidence of the highest quantity and diversity of luxury and imported foods, and probably would exhibit the greatest variety of plant foods overall but the lowest amounts of wild plant foods;
2. middling households might have the lowest over-all diversity of foods and would rely principally on local domestic resources; and
3. lowest ranking households would include a wide range of wild resources but a restricted range, and smaller amounts, of domestic ones (Reitz and Scarry 1985:95).

It is interesting to note, however, that they referred in another section to possession of relatively greater amounts of imported ceramics as the best archaeological indicator of socioeconomic status (Reitz and Scarry 1985:51), but they did not correlate this with food

preparation or service techniques that might affect faunal assemblages.

Initial acculturation and adaptation to local conditions apparently took place rapidly (Reitz and Scarry 1985:96-97). As evidence for Spanish recognition and acceptance of local environmental conditions that affected animal husbandry, the authors noted that an early governor shipped "311 goats, 1,304 hogs, 27 calves, 3,660 chickens, and 87 horses and mares to Florida between 1565 (the date of the establishment of St. Augustine) and 1571 (Lyon 1981 cited in Reitz and Scarry 1985:96). By contrast, the initial settlement plans had called for supplying the colony with 100 horses and mares, 200 calves, 400 swine and 400 sheep (Solis de Meras 1923 cited in Reitz and Scarry 1985:96). In addition, mestizaje, defined as the process by which the society became mestizo rather than Spanish, began almost immediately through the cohabitation of Spanish men and Indian women (Deagan 1973 cited in Reitz and Scarry 1985:96). Reitz and Scarry had several explanations for this rapid acculturation: the Spanish were already aware of the problems of colonization in an unfamiliar environment and may thus have been predisposed towards acculturation; familiarity with Caribbean and Mexican plants and animals may have made local foods more easily acceptable; indigenous cultigens were available from local Indians without a period of exploration; and native cultigens were preferred to Old World ones because they yielded better harvests under local conditions (Reitz and Scarry 1985:97).

Reitz and Scarry employed throughout, but did not make explicit until the last chapter, the concept of least cost, suggesting that people would expend the least possible effort to generate the greatest subsistence returns (Reitz and Scarry 1985:98). They contended that, given the local environment and the problems of supply, the Floridians' subsistence patterns would have evolved as they did even

without the example of the indigenous populations. Acculturation to the Indians' foodways made this process more rapid and successful (Reitz and Scarry 1985:98).

This monograph was extremely valuable on a general level as an example of how to undertake a detailed study of subsistence practices. It could have been improved, however, by the inclusion of more information about food-related artifacts. Information about artifacts was published by Deagan (1978), but it would have been useful to have the faunal and artifact information synthesized. On a specific level, the work of Reitz and Scarry raised issues that pertain to the study of foodways in New Amsterdam; in particular, the questions of how the Dutch obtained food and knowledge of subsistence practices from the Indians, and the importance of supplies from the mother country.

Eighteenth Century Georgia

In an earlier article, Reitz, along with Nicholas Honerkamp, examined British colonial subsistence strategy on the Southeastern coastal plain in eighteenth century Georgia. The article is, in part at least, a response to the presumed "commonly held notion that European populations did not have to adapt to New World environments due to the 'insulating' effects of their cultures" and the consequent neglect of subsistence studies in historical archaeological literature (Reitz and Honerkamp 1983:4). Whether this is indeed a commonly held notion is debatable, but Reitz and Honerkamp succeeded in proving that the diet of British settlers at Fort Frederica was not immune to change. They compared the faunal assemblages from the Hird site at the Fort, and some other, smaller, assemblages from the same general area, to an "English Barnyard Complex" model based on Anderson's reconstructed yeoman foodways. This model predicted that pig bones would have been the most common with sheep second and evidence of only a few older cattle

utilized for food. Domestic rabbits, wild hares, limited amounts of deer, domestic fowl and wild birds should also have been present. Fish, especially offshore species, should have been abundant.

Reitz and Honerkamp found that the English model was not replicated by the settlers at Fort Frederica. In their opinion, "a regional pattern of animal utilization that cross-cuts ethnic boundaries" developed on the Atlantic coastal plain (Reitz and Honerkamp 1983:22). This "subsistence complex" had the following characteristics: cattle were the dominant species; pigs were next in importance; wild land mammals and estuarine fish and mammals were also important; wild birds and reptiles were utilized "occasionally"; essentially no sheep, goats, or deep sea fish or mammals were included in the diet; and butchering techniques relied on chopping and cutting (Reitz and Honerkamp 1983:22).

In many respects, Fort Frederica was the British equivalent of Spanish St. Augustine: it was located in a similar environment and its relationship to its mother country was one of a specialized, dependent, military frontier settlement. Neither settlement was designed to be a self-sufficient farming colony; as a result, cattle were probably not raised chiefly as producers of dairy products (as they were in England). Reitz and Honerkamp stressed the environmental conditions that led to the establishment of very similar patterns of animal utilization at both sites. However, other factors shared by both settlements probably also contributed to their similarities. The relative isolation of both settlements, their lack of regular supplies from Europe, and their purpose as military outposts not farming colonies also decreased their access to domestic animals.

THE CHESAPEAKE - SEVENTEENTH CENTURY MARYLAND AND VIRGINIA

Henry Miller (1984) used zooarchaeological data to study the effects of the process of colonization. He was interested in the cultural changes that occurred in a frontier situation and used faunal data to test hypotheses based on a colonization model he developed.

His first hypothesis dealt with complexity and specialization of subsistence practices (i.e., agricultural and husbandry technologies). It predicted that such activities would become simplified and less complex compared to the homeland (Miller 1984:49). The second hypothesis predicted that adaptive strategy during the initial period of colonization would be "diffuse" compared to the homeland, i.e., that niche size would be wide (Miller 1984:50). Hypothesis three was related and predicted that, "as available lands are occupied and the population grows ... dependable resources which can be intensively exploited will become more important and the adaptive strategy will be more focused" (Miller 1984:50). The fourth hypothesis was related to the first and predicted that subsistence practices would become more complex and stable over time (Miller 1984:51). The fifth predicted that patterns would be the same throughout the entire colonial region, and the sixth postulated that socio-economic differences in diet and subsistence strategies would increase through time (Miller 1984:52). All of these hypotheses could be applied to any colonial region; none is area specific. Miller went beyond any of the Southeastern zooarchaeological studies to examine the underlying cultural processes that cause acculturation and adaptation.

Most of Miller's hypotheses were supported: initially, subsistence practices were diffuse, varied and simplified, compared to the colonizing culture; over time, subsistence

became focused upon only a few, reliable species. In the Chesapeake, this was at least partially due to depletion of natural resources caused by colonial over exploitation (Miller 1984:337), for which there is also some evidence on Manhattan Island (Grossman 1985). The sixth hypothesis did not hold true. Indeed, there were more archaeologically recognizable differences in diet in the early years of the colony (Miller 1984:370-371). Status-related subsistence differences decreased rather than increased during the seventeenth century because there were few restrictions on acquiring land in the Chesapeake at this time; thus, almost all families had access to the means to fill their dietary requirements (Miller 1984:384). The subsistence system was neither capital nor labor intensive and the limiting factor was availability of labor and disposable wealth, rather than availability of land (Miller 1984:383-385). During the early years of the colony, those who could afford to devote time and effort to the relatively high-risk activity of deer hunting, and people who could purchase cattle for consumption as well as for procreation, had more meat in their diets (Miller 1984:383). In contrast, in the latter part of the seventeenth century, even though "the colonial society became increasingly stratified socially and economically, the key subsistence resources [meat] did not become unequally distributed" (Miller 1984:385).

Miller noted, but did not discuss, other indications of socio-economic status that should appear in artifacts associated with foodways:

Of course, there certainly were differences in the quality of foods served between rich and poor households. The wealthy could afford a wider range of spices, sugar, specialized cooking equipment [emphasis mine], baking ovens, imported wines and spirits, as well as the labor and facilities with which to prepare elegant dishes (Miller 1984:370)

Costly plates, serving dishes, and glassware should be added to his list. These plates, dishes, bottles, glasses, and

cooking equipment are all likely to be present in archaeological assemblages, and their inclusion would strengthen any argument about foodways.

Miller recognized "factors other than food acquisition ... [that] served other cultural needs" as influences on a society's animal husbandry practices (Miller 1984:378). Cattle were a form of economic security because they were assets that could be sold in times of need and could also be inherited (Miller 1984:379). In addition, Miller contended that "the development of this focal strategy [reliance on cattle and swine] can also be viewed as the successful reestablishment of traditional British subsistence patterns", with, however, significant decreases in the importance of sheep and cheeses of all sorts in the diet (Miller 1984:381). Unlike the Southeastern zooarchaeologists, he viewed reestablishment of their accustomed European diet as an important goal for the colonists.

THE NORTHEAST

Seventeenth Century Massachusetts

In spite of Deetz's early study of New England foodways, no major monograph treating the subject has yet appeared. However, there are a number of shorter articles, many included in the publication of the 1982 Dublin Seminar for New England Folklife (Benes and Benes 1984). Two articles concerning Portsmouth and Plimouth Plantation are particularly pertinent: the former was based on archaeological evidence, the latter on documents.

Plimouth Plantation as it exists today is a historical reconstruction designed as a living museum depicting life in the settlement in 1627. The museum aims to show visitors "daily household tasks, in which, as was the case in 1627, foodways play the central role" (Baker 1984:106). Archaeologists and historians associated with Plimouth seem

to have unequaled primary personal and government documents for the early years of the colony, and the recreation is based on these records. 1627 was an especially well-documented year because the settlers took a census of their animals as a preliminary step towards dividing the village's resources among the various families when they moved away from the settlement to establish separate homesteads.

Foodways, as presently reconstructed at Plymouth, include maize as the most important crop, although unspecified "English crops" are also grown (Baker 1984:107). Currently, maize, meslin (mixed grains, especially wheat and barley) and pease (various peas) are grown on the "token" fields (Baker 1984:109). Each household has a kitchen garden that supplies vegetables and herbs (the reconstructed gardens are based on a seed order for 1631, as well as on a 1650 poem by Gov. William Bradford) (Baker 1984:109).

In 1627, according to the settlers' census, there were 16 cattle, 20 female goats, a few sheep, and swine and chickens "too numerous to list" (Baker 1984:107). The five milch cows and the goats provided milk for cheese, and these "white meats" (as cheeses were known in the seventeenth century) were important parts of the diet. Thus, at Plymouth as at all of the other North American colonies discussed above, the importance of sheep had diminished, compared to general European patterns. Utilized wild foods included shellfish, ducks and other waterfowl, wild turkeys and smaller terrestrial birds, rabbits, lobsters, and eels. The settlers lacked the skills to hunt deer, but could buy venison from the Indians (Baker 1984:107).

Since 1627 was only seven years after the founding of the colony, only the very beginning of the colonization process is represented at the Plymouth Reconstruction. However, it does not appear that the colonists would have been forced to make any major readjustments to their subsistence practices in later years because they had

already established a successful pattern. Although there were times of food shortages in the first two years, often due to the arrival of poorly provisioned new settlers (Bradford quoted in Baker 1984:106-107), there were no "starving times". By 1627, in Baker's opinion, Plymouth "depended on supplies from England for many of its needs, but it was as self-sufficient as most English villages in the matter of food" (Baker 1984:107).

The climates of New England and England are of course more similar than those of Florida and Spain. Fewer adaptations to a new environment were demanded of the English settlers. In contrast to the Southeastern coastal plain, the New England climate is more temperate than the Southeast, with well-marked seasons, and Baker's Plymouth foodways reconstruction included appropriate and varying activities for each time of year.

Eighteenth Century Portsmouth

In another study, Steven Pendery examined variability in eighteenth century urban foodways from households representing the "professional elite", "middle class craftsmen", and "a poor widow" in Portsmouth, New Hampshire (Pendery 1984:9). He concluded that socio-economic differences could be correlated with observed variations in foodways. Specifically, variability in the Portsmouth assemblages was seen in the quality of meat and fish consumed. Poorer households used less choice cuts and less desirable fish (Pendery 1984:18-20). Some wealthy citizens of Portsmouth also supplied their households with fresh meats and vegetables through the ownership of upriver farmsteads (Pendery 1984:25). Eighteenth century Portsmouth enjoyed the reputation of being a healthy place to live, and Pendery speculated that "its diversified diet may have contributed to the health of the community" (Pendery 1984:26).

DISCUSSION

The aforementioned subsistence and foodways studies of colonial Eastern North America can be synthesized to create a broad picture of colonial subsistence. In all three areas -- the Southeastern coastal plain, the Chesapeake, and New England -- European domestic animals remained the principal sources of meat but the proportions of these animals in the settlers' diets changed: cattle and pigs became relatively more important and sheep became much less important than they were in the Old World. The problems that sheep faced from predation by feral dogs and wolves, as well as their general failure to prosper under heavily forested and/or hot, humid conditions, were factors in their decline. Cattle and pigs, on the other hand, survived and thrived with a minimal amount of effort expended on animal husbandry. They were allowed to roam free, especially during warm weather, and adapted reasonably well.

Patterns of exploitation of wild mammals varied regionally and over time. In the Southeast, the European settlers either copied the Indians' methods of hunting wild animals or bought or stole meat from them. In the Chesapeake, wild animals were a more important part of the diet during the early years of the colony than they were at the end of the seventeenth century. By the last decades of the century, domestic animals had become reliable sources of meat but, due to changes in their habitats and over-exploitation, numbers of wild animals had decreased. The Plymouth colonists in the initial years of settlement lacked hunting skills but could purchase meat, especially venison, from the Indians. The extent of utilization of wild mammals thus depended upon their availability, Europeans' knowledge of how to hunt or trap them, and the extent of contact that Europeans had with local populations.

In Europe, many commonly eaten fish species were deep water types obtained by commercial fishermen. Conversely,

most fish species found in North American archaeological deposits were riverain or coastal species probably caught by single individuals or small groups using simple fishing techniques. The fishes eaten by European settlers in all three regions closely resembled those used by local Indians, and many aboriginal fishing methods were adopted.

Maize supplanted European grains as the most important crop within a very short time. Wheat, and to a lesser extent barley, were moderately important in New England and the Chesapeake and marginally cultivated in Florida. Legumes were common in all regions, but different types were favored in each area: lentils and garbanzos in the Southeast; peas and beans of various sorts in the northern areas. Agricultural techniques remained European for the most part, but, because land was plentiful and labor was scarce, agriculture became simplified and, in many cases, it "was a technological step backward" (Miller 1984:233). Hoes were more useful than plows on recently cleared land and the abundance of arable land allowed the colonists to dispense with fertilization of exhausted fields.

The amount of imported foods available to the settlers depended upon the extent of contact, and the reliability of supply lines, with the mother countries. Individual settler's abilities to purchase imported commodities with cash or goods also affected their diets.

Dietary variations caused by socio-economic differences were often not possible to observe in the available archaeological collections. Quantitative differences in amounts of meat or fish consumed are difficult to evaluate from faunal assemblages. Qualitative differences, however, can sometimes be observed. Quality can be assessed by the amount and types of meat represented by bone remains: meatier, more tender cuts are generally preferred and are more costly. Large fish with relatively smaller bones compared to muscle mass are also usually more costly.

NEW AMSTERDAM/NEW YORK CITY

These zooarchaeological studies examined adaptation and acculturation in Spanish and British colonies. Important factors that were observed to affect foodways were the following: adaptation to local environmental conditions; acquisition of knowledge about local animals and plants and/or access to local resources from the aboriginal inhabitants; and extent of contact with Europe and other colonies. These studies provided models and theoretical orientations, and their general conclusions should apply to New Amsterdam/New York. However, the colony on Manhattan Island was similar to the other areas in some characteristics but differed in others that might affect the colonists' adaptations.

Most obviously, the environment of New Netherland was more similar to that of New England and the Chesapeake than to the Southeastern coastal plain. Lying at 40 degrees north latitude, Manhattan has a temperate climate with marked seasons. Average mid-twentieth century temperatures were 73.2 degrees Fahrenheit in August and 32.7 degrees in February; annual precipitation was approximately 40 inches per year (Kieran 1959:40-41). Both New England and the Chesapeake have temperate climates with, manifestly, the former area colder than the latter.

The climates of the northern colonies were more similar to those of northwestern Europe than were the climates of the Southeastern colonies. Contemporary accounts noted that "the changes of the year ... are observed as in the Netherlands; and ... they do not differ much in the temperature of cold and heat" (Van der Donck 1968:61). Summers were somewhat warmer and drier than in the Netherlands but winters, especially in the inland highlands of the Hudson, were colder -- with beneficial results for fur qualities (Van Der Donck 1968:63-65). The degree of adaptation necessary was thus moderated by the relative

similarities of the climates of the Netherlands and New Netherlands.

The reasons for colonizing the several areas varied. St. Augustine and Fort Frederica were specialized military colonies established by Spain and England as part of these countries' imperialistic expansion into the New World. While neither was intended to be self-sufficient, they were not supposed to be dependent on Europe for basic foodstuffs. Plymouth Colony and the settlements in the Chesapeake were farming communities whose goals included the greatest possible self-sufficiency. Early New Amsterdam, although located in a very different environment, had a relationship with its mother country similar to that of St. Augustine and Fort Frederica. The specialization of New Amsterdam was trade, not military activities, but all three were supposed to function as parts of a large system. Fort Frederica and New Amsterdam differed from St. Augustine in the relative reliability of their supply lines. St. Augustine suffered from erratic provisioning, but the other two were assured of more or less regular supplies of European goods.

Early New Amsterdam was also similar to Fort Frederica in the occupations of its settlers. At Fort Frederica, the majority of the 450 civilian inhabitants were employed in "providing goods or services" to the 600 man garrison (Reitz and Honerkamp 1983:6-7). A similar situation prevailed in New Amsterdam between the Dutch West India Company and civilian settlers, in at least the first two decades of the colony's existence (Rink 1986). After this period, New Amsterdam's civilian population increased and fewer people were economically dependent on the West India Company (see Chapter 2).

The colony of New Netherland was unique among the other areas studied because it passed from the political control of one European country to another during the period under study. St. Augustine was ceded to the British in 1763, but,

so far, there has been no published archaeological study of the British colonial era.

The ethnic diversity of its inhabitants was the most distinguishing characteristic of New Amsterdam/New York City. During the seventeenth and early eighteenth centuries its people were characterized by their variety. In 1646, the Jesuit missionary Isaac Jogues wrote that "on the island of Manhate ... there were men of eighteen different languages" (Jogues in Jameson 1909:259). The area's heterogeneity was the result of its peculiar colonial situation. It was founded in 1624 by the Dutch West India Company as a trading settlement and, because of political and social conditions in the Netherlands, people from many European nations were among its inhabitants (Chapter 2). When the English took over the colony in 1664, diversity was increased through immigration of people from the British Isles.

Modern historians are in some disagreement about the social consequences of this diversity, especially after 1664. Most historians have assumed that because the laws and the structures of government became British, anglicization of other parts of the society followed, at the latest, by the end of the century (Condon 1968, Bonomi 1971, Ritchie 1977, for example). The traditional focus of history is government and its institutions, so it is understandable that historians have emphasized political changes.

The social historian Joyce Goodfriend has a different viewpoint:

in assessing the cultural consequences of ethnic interaction in seventeenth century New York City, what seems noteworthy is the gradual pace of acculturation as well as the significant amount of cultural autonomy which each group was able to retain (Goodfriend 1975:265)

Goodfriend contends that the acceptance of ethnic pluralism

was a stabilizing rather than a divisive force for the community, for "through the legitimation of cultural variation, potential ethnic discord was deterred and a tenuous but viable form of communal equilibrium was achieved" (Goodfriend 1975:13).

If Goodfriend is correct in her assertion that cultural variation was accepted and legitimate in New York City during the latter years of the century, material culture should reflect this situation. In archaeological terms, material culture, including food-related artifacts, in New York City during the period from 1664 to 1730 should be heterogeneous not homogenous.

New York's initial and continued ethnic diversity must be added to the other factors -- adaptation to local conditions and types of contact with Europe and other colonies -- that affected foodways.

Cumbaa, Reitz, Scarry, Honerkamp, Baker, and Miller discussed the changes in Europeans' patterns of animal utilization that occurred as colonies were established. Miller, especially, was concerned with changes during the "colonization process" -- i.e., "the process by which a society rapidly occupies new territories and environments through migration and readaptation" (Miller 1984:2). None of them, however, discussed artifacts in any detail. Food-related artifacts and food-preparation techniques must be incorporated into any comprehensive analysis of foodways.

Two foodways studies that relied on ceramics were by Blanchette (1981) and Otto (1977). Blanchette's study was set in early eighteenth century French Canada. He studied the interconnections between the growth of a new style of French cuisine and the development of a new type of ceramic, brown faience. Blanchette found that the use of particular brown faience vessel forms was linked to the change from an essentially medieval cuisine to a "new cuisine characteristic of the bourgeois" (Blanchette 1981:5). He

classified vessels according to both their shapes and their functions within foodways (i.e., cooking, service, storage) and emphasized that the functions of vessels and not just their forms and decorations must be considered when analyzing archaeologically-recovered ceramics.

Otto's study, in which he was concerned with the differences between slaves', overseers', and plantation owners' foodways in the antebellum South, used different ceramic forms as indicators of different foodways (Otto 1971). Specifically, he reasoned that the presence of greater quantities of bowls, as opposed to plates, indicated greater consumption of soups and stews rather than foods like roasts and steaks. Soups and stews would have been made with less desirable and smaller quantities of meats. His study was notable for its explicit assumption that ceramic vessel forms could be correlated with types of foods eaten and with socio-economic variables.

NEW AMSTERDAM/NEW YORK CITY FOODWAYS

The studies cited above provide suggestions for the study of foodways in New Amsterdam/New York City. In the New Netherland period (pre-1664), types of foods eaten and how they were prepared were likely to have been affected by the local environment, New Amsterdam's position at one of the frontiers of a mercantile colonial system, and the settlers' perceptions of what constituted proper food and cooking. Local foods were probably added to the settlers' diets as they learned about indigenous resources. After 1664, the passage of political control to Great Britain affected long-distance trade and opened the area to increasing numbers of non-Dutch immigrants; thereby most probably introducing new culinary traditions and different European sources of supply. This study will use ceramic artifacts and faunal remains to investigate the interactions of these environmental, social, and political factors. The

questions about foodways are different for the pre- and post-1664 periods. However, a common area of inquiry is whether environmental similarities caused the foodways of New York and adjacent areas to be uniform, i.e., did environmental similarities lead to similar foodways or were there appreciable differences between New York, the Chesapeake, and New England due to New York's initial Dutch settlement and its continued ethnic diversity.

The following questions will be explored using evidence from bones, ceramics, and food preparation techniques. The first three concern the New Netherland period and the last two the New York period.

1. How did the early settlers adapt to local environmental conditions; i.e., did they attempt to replicate their European foodways and, if so, how successful were they?
2. What local plants and animals were added to the diet and how did the New Amsterdammers learn to obtain and prepare these resources? Were native foods incorporated into the diet as more or less direct replacements for European foods or were they prepared and consumed in aboriginal fashion?
3. New Amsterdam was the center of Dutch trade in the North Atlantic. Since it had relatively frequent and reliable ties with Europe, did the settlement go through the initial period of cultural impoverishment and diffuse resource use that was observed in the Chesapeake? Did the colony have the "starving times" that were frequent in other colonies or were the settlers cushioned from initial famine by their participation in an extensive trade network?
4. After 1664, did foodways in New York City continue to exhibit Dutch characteristics, especially in food preparation techniques and food-related ceramics? Were locally-produced ceramics made in Dutch forms throughout the seventeenth century in spite of separation from the homeland and political domination by the English?
5. During the last quarter of the seventeenth century,

immediately after the final political ascendancy of the English, was ethnic diversity expressed in foodways? Is there evidence of coexistent Dutch, English and possibly French (among the Huguenots) foodways in New York City?

6. Were the late seventeenth/early eighteenth century ceramic assemblages from New York City more similar to contemporary ones from the Chesapeake and New England than was the case with early and mid-seventeenth century assemblages?

Chapter 2 describes the historical circumstances of the Netherlands in the seventeenth century and the factors that influenced the settlement and development of New Amsterdam/New York. A fairly lengthy discussion of the Netherlands and their mercantile colonies is necessary because most North American historical archaeologists are unfamiliar with Dutch history and Dutch economic power in seventeenth century Europe. It provides the background for the reconstruction of Dutch and Dutch-American foodways that follows.

Since there is at present no comprehensive analysis of Dutch seventeenth century foodways, various sources are examined in Chapters 3 and 4. Chapter 3 summarizes data from seventeenth century cookbooks, institutional menus, and secondary historical documents. Seventeenth century Dutch genre paintings and their depictions of foods, food preparation, and consumption are the subject of Chapter 4.

Information that can be used to reconstruct foodways in New Amsterdam/New York City is examined in Chapters 5 and 6. Travelers' accounts, letters written to Europe from New Netherland, and historical descriptions of New Amsterdam/New York City are explored in Chapter 5. Chapter 6 presents archaeological information recovered from excavations in Lower Manhattan.

Chapter 7 uses the information in Chapters 5 and 6 to

reconstruct foodways in New Amsterdam/New York City during the study period. The series of questions outlined above are addressed and New Amsterdam/New York City foodways are compared to those of the Netherlands and to those of other North American British colonies.

Chapter 8 summarizes the results of this research and makes suggestions for further research using these and other data sets.

CHAPTER TWO: HISTORICAL BACKGROUND

In order to understand the society and culture of New York City in the seventeenth and eighteenth centuries, the history of the Netherlands must be considered. New York was originally a Dutch colony, and its social structure and material culture were derived from that of the Netherlands. Since the seventeenth century history of the Netherlands (more properly termed at that period the "United Provinces of the Netherlands"⁴), is not part of the general knowledge of most North American archaeologists, it will be useful to note particular historical events that partially account for the settlement of the area by Europeans and for the colonial policies of the Dutch West India Company. The chapter concludes with a brief history of New Amsterdam/New York. This information, although not directly related to the question of foodways, is necessary because it outlines the political and economic factors that affected both the choices that people made about material culture and the types of foods and artifacts that were available to the inhabitants of New Amsterdam/New York.

THE ESTABLISHMENT OF THE UNITED PROVINCES

At the beginning of the seventeenth century, the United Provinces of the Netherlands was a Protestant republic that had come into being during the last half of the sixteenth century as the result of a revolt against Spanish rule. The entire Low Countries (modern day Belgium, Luxembourg, and parts of France as well as the Netherlands) had come under

⁴ The term "the Netherlands" will be used to refer in general to the country. The term "United Provinces" will be used in the discussion of the rebellion that separated the northern and southern portions of the area formerly known as the "Lowlands" to distinguish between the northern (the modern Netherlands) and southern (modern Belgium) areas.

the domination of Spain less than one hundred years previously. At that time, the Low Countries were divided into provinces under the control of four great princes; there were also a number of independent towns with rights of self-government (Geyl 1958:29). The pattern was essentially still a medieval one with several great feudal overlords and many independent towns.

The Dukes of Burgundy, as part of their dynastic expansion, had conquered the Low Countries at the end of the fourteenth and beginning of the fifteenth centuries. The Low Countries were a desirable area because of their wealthy towns and substantial trade and because of their strategic coastal position (Geyl 1958:29). By the end of the fifteenth century, the Burgundians had intermarried with the German Hapsburgs and the ruling house of Spain. Charles V, the ultimate issue of these intermarriages, became ruler of Spain, the Low Countries, and Germany as the Holy Roman Emperor. The Netherlands were considered his patrimonial provinces and the core of his possessions (Geyl 1958:60). Charles V ruled from 1506 to 1555 and during his rule the Netherlands were governed, as they had been since the Burgundian dukes gained control, for the benefit of a larger empire. Charles was accepted as their sovereign by the nobles and towns because he was thought of as a Netherlander (he was raised at Ghent) and because he respected the privileges of the towns and nobles (Geyl 1958:passim; Rowan 1972:introduction). His son Philip, however, was first and foremost a Spaniard. Charles abdicated and retired to a monastery in 1555; his brother became Holy Roman Emperor but Philip became king of Spain and the Netherlands as Philip II.

The revolt against Philip II began in 1566 as a reaction to his absolutist policies and his subjugation of the Netherlands to Spanish interests, but during the next ten years it became entwined with the spread of Calvinism

and the cause of Republicanism. Fighting between the forces of Spain and the Netherlands was almost continuous until the end of the sixteenth century. At the turn of the century, the Netherlands were divided into northern and southern areas, under the military control of the States-General (the governing body of the Republic) and Spain respectively. In 1607 an armistice was agreed to with conditions largely favorable to the North (Geyl 1958:250). Peace negotiations broke down over the issue of trade with the West Indies: this region was Spain's main source of revenue, and Dutch trade and privateering, which the States-General refused to discontinue, resulted in costly losses for the Spanish. France and England, however, put pressure on both sides to come to some agreement, and in 1609 the Twelve Years Truce was concluded. The Truce provided for the cessation of hostilities and Spain recognized, temporarily, the independence of the United Provinces (as the northern provinces were called after the Union of Utrecht in 1579) (Geyl 1958:250-259; Jones 1966:41; Rowan 1972:112-113).

Final recognition of the independence of the United Provinces was part of the Peace of Westphalia in 1648. In that year a series of treaties ended the European-wide Thirty Years War. Spain and the Netherlands agreed to the independence of the North, recognition of Spanish claims to the South, continuation by both of peaceful trade with the East and West Indies, and permanent closure of the river Scheldt (the main artery to Antwerp, the major port of the Spanish-controlled southern provinces) (Smit in Rowan 1972:179-187).

THE UNITED PROVINCES IN THE SEVENTEENTH CENTURY

GOVERNMENT

The revolt against Spain caused political, religious, and economic changes in the Netherlands. In the mid-sixteenth century, Brussels was the national capital and

Antwerp was the largest commercial center (Geyl 1958:63). Both cities were located in the southern province of Brabant. Catholics were the religious majority in all provinces. French was spoken in the southern provinces, but the main cultural line of demarcation did not follow linguistic boundaries. Political and economic differences separated the provinces of Flanders, Brabant, Holland, and Zeeland on the one hand, and the northeastern agricultural provinces of Friesland, Groningen, and Gelderland on the other (Geyl 1958:63). By the time of the 1609 Twelve Years Truce, the southern provinces, centered around Flanders and Brabant, and the northern and northeastern provinces, centered around Holland and Zeeland, were divided from each other by religious and political differences: the United Provinces of the Netherlands (the northern provinces) were a Calvinist Republic; the Southern Netherlands were a Catholic appendage to a large empire. Since the linguistic boundary did not conform to the political boundary, the Southern Netherlands had, and still have, two languages. From this time, the two areas were separate countries with separate lines of development, and only the northern provinces, referred to as the Netherlands, will be discussed below.

Holland had emerged as the most prosperous and powerful of all the provinces (Barbour 1963). Prosperity in the Netherlands was based on control of trade, and Amsterdam had taken over the bulk of the trade which formerly went to Antwerp. In addition, many Protestants had chosen to leave the southern provinces and had settled in Holland and Zeeland. The refugees were often people of economic substance whose capital reserves and business enterprise benefitted the north (Geyl 1958:202- 223; Rink 1986:36ff).

The government of the Netherlands during the seventeenth century was divided between municipal, provincial, and national institutions. The national governing body (the States-General) had both executive and

legislative powers over the loose confederation of provinces created by the 1579 Union of Utrecht. Each of the seven provinces (Holland, Zealand, Friesland, Gelderland, Groningen, Utrecht, and Overijssel) was governed by its own provincial States. The provincial States were elected legislative bodies whose membership reflected the interests of rich merchants in the commercial provinces (Holland, Zealand, and Utrecht) and of the remnants of the hereditary nobility in the inland, less prosperous, provinces (Rowan 1972:xxi). Together the prosperous merchants and the nobility made up the "regent class" which, during the course of the century, became "a self-chosen, self-perpetuating aristocracy, without a shred of the implicit representation of the community as a whole..." (Rowan 1972:225). The States-General was composed of members of the provincial States; it continued to hold the sovereign power of the nation in its hands throughout the century. Each province had an executive head, the Stadtholder, who was elected by its own provincial States. A stadtholder could hold the same position in more than one province, and during much of the century the Prince of Orange was Stadtholder of the provinces of Holland, Zealand, and Utrecht. The towns had independent local governments responsible for municipal regulations. (Municipal regulations were important because towns had rights of control and taxation over imports and exports of goods.)

The government of the Netherlands was described by Sir William Temple (the British ambassador) in 1672:

it cannot be properly styled a commonwealth, but is rather a confederacy of Seven Sovereign Provinces, united together for their common and mutual defence, without any dependence one upon the other ... each of these provinces is likewise composed of many little states or cities... (Temple 1972:215).

Provincial and national interests frequently were in conflict. The two main representatives of the opposing

viewpoints were the States of Holland and the House of Orange: the States of Holland represented the interests of rich merchants and of the towns of Holland who wanted provincial freedom, republicanism, and religious toleration; the Princes of Orange represented strict Calvinists, the less prosperous provinces, and those who would not abandon the idea of a united northern and southern Netherlands (Geyl 1958: 193, 251-254; Rowan 1972:105, 115-126, 176-201).

COMMERCE AND TRADE

The Netherlands had the strongest economy in Europe for most of the seventeenth century. The economy of the Netherlands was based on trade. The Dutch were the middlemen of Europe who carried wine, brandy, oil, and salt from France and the Iberian Peninsula to the Baltic where they picked up wood and timber products, iron and steel (Jones 1966:50-66; Rowan 1972:143-175; Smith 1973:81). In addition, they imported wheat and rye from Poland and Prussia for their own use and for reexport to southern Europe (Van Nierop 1983:8). Their own agricultural and manufactured products as well as those of other countries were also exported: salted herrings and butter and cheese from Holland traveled with stonewares from the Rhineland and earthenwares from Delft; textiles were made in the North by emigrants from Flanders and plain white cloth from England was brought in to be dyed and subsequently exported. Dutch commercial dominance was based on their fast, small ships, and on their reserves of capital which enabled them to advance credit on lower terms and for longer periods than the merchants of other countries (Jones 1966:41ff; Rowan 1972:143-175; Smith 1973:81; Rink 1986:207-209).

Domestic agriculture was tied to trade and the European market system. Grain was imported from the Baltic, but butter, cheese, and preserved fish (notably herring) were exported. Vegetables and fruits as well as dairy products

were produced in the countryside for sale in the markets of towns and cities. Thus, by the end of the sixteenth century, the agriculture of the United Provinces was already specialized and, unlike that of England, was not based on subsistence farming (Van Nierop 1983:8; Miller 1984:72-74).

During the seventeenth century, the Dutch trading sphere expanded into the Mediterranean and to the East and West Indies. From the East, ships brought in spices, silk, tea, and porcelain; sugar and furs came from the Americas. Trade with the Indies was controlled by the chartered companies. Chartered companies were groups of merchants granted a monopoly by their national government for trade in specific areas of the world. The monopoly often included the power to govern the people in those regions. One of the most important reasons for their sanction by European governments was a desire to avoid ruinous competition between merchants from the same country. Chartered companies were numerous in both England and the Netherlands; some of the most historically important were the British and Dutch India East Companies, the Hudson's Bay Company, the Plymouth Company, and the London Company. The principal goal of the companies was to make a profit through trade, but a few, especially several British ones, were also concerned with colonization.

The common conception of the Netherlands in the seventeenth century is of a country of middle class traders - a land dominated by the bourgeoisie. Sir William Temple, who admired the Dutch but did not idealize them, wrote that the Hollanders (as the people of the United Provinces were often called) could be divided into "several classes": the boers (farmers); mariners; merchants; renteeners who lived in the towns but received their incomes from rents on family properties; the "gentlemen"; and army officers (Temple 1972:218-223). In his discussion of the characteristics that he attributed to the several "classes",

he grouped the farmers and mariners together as people of little wealth. The merchants and "renteeners", especially the latter, made up the pool of men from which the numerous city, provincial, and national offices were filled. These two "classes" contained members of varying degrees of wealth but generally were at least well off. They intermarried and were accorded the highest "...honour, which consists not here in titles, but in public employments" (Temple 1972:221). Temple admired the "simplicity and modesty of their Magistrates in their way of living, which is so general, that I never knew one among them exceed the common frugal popular air" (Temple 1972:217). The gentlemen or nobles "are very few, most of the families having been extinguished in the long wars with Spain... They strive to imitate the French in their mien, their cloaths, their way of talk, of eating, of gallantry or debauchery" (Temple 1972:221-2). The officers followed the "customs and fashions of the gentlemen" (Temple 1972:222). Temple's observations support the popular image of Netherlanders (indeed they were probably a major source of the popular image); however, he did not mention another section of society, the urban poor (the grauw). Temple did mention tradesmen and "men of mean or mechanic trades" (Temple 1972:220), but he was apparently referring to small scale merchants and artisans. The grauw were poor people who were generally employed as day laborers (Van Nierop 1983:11).

Poverty was definitely not unknown in the Netherlands, but poor people were generally in a better economic condition there than in other European countries (Braudel 1981; Kistemaker and Lakerveld 1983; Schama 1987). People came to the Netherlands from the rest of Europe, especially the Spanish Netherlands, France and Germany, to take advantage of its prosperity and comparative religious freedom. The official religion of the Netherlands was Calvinism, known in the Netherlands as the Reformed Church,

and other Calvinists -- Huguenots from France, Puritans from England and Scotland, and Calvinists from Germany -- came there to be able to practice their religion without hindrance. Lutherans, Catholics, Anabaptists, other Christian sects, and Jews were forbidden open practice of their religions, but they were not persecuted and were allowed to meet in private homes. The province of Holland, and in particular the city of Amsterdam, was remarkable for its religious toleration, which was essentially a pragmatic policy designed to encourage business (Smith 1973:239ff). Amsterdam was subject to provincial and national laws that limited religious toleration, but the city magistrates, many of whom were not fervent Calvinists, simply failed to enforce the laws (Smith 1973:242). An additional reason for the religious toleration in Holland was the tradition of humanism established by the teachings of Erasmus in the previous century (Geyl 1958:51-56).

THE UNITED PROVINCES AND ENGLAND

The political relationship between the English and Dutch nations during the seventeenth and early eighteenth centuries was governed by the commercial rivalry which developed between the two. When the Netherlands had been fighting for their independence from Spain, there was much sympathy for their cause in England and many individual noblemen went to fight in the ranks of the Protestants. The States-General, in an effort to gain military support, offered the position of sovereign to Elizabeth I in 1584, but Elizabeth had not been willing to antagonize Spain by assuming the proffered sovereignty (Geyl 1958: 196). Nevertheless, political, religious, and commercial connections remained strong and cordial, and emigration between England, the United Provinces, and lowland Scotland was common (Jones 1966:38). Serious commercial conflicts began to develop in the East Indies during the 1620s. Both

countries were trying to establish trading spheres in the area, and the Dutch succeeded in confining British merchants to India. Dutch and British ships and merchants also came into conflict in the Baltic and Mediterranean Seas and in the Greenland whale fisheries (Jones 1966:23,38).

In 1651 Parliament passed the Navigation Ordinance, which stated that goods could be brought into England only in English ships or in ships of the country in which they had been produced (Jones 1966:47; Noel Hume 1970:257; Rink 1986:170). This ordinance was the result of the severe economic problems that England was experiencing in the wake of her civil war and was aimed specifically at the Dutch carrying trade. In the same year, the English sent an embassy to the Hague whose "main proposal was for a close union between the two republics, amounting almost to a confederation" (Jones 1966:48). The proposal was not well received by the Dutch, and the two countries more or less blundered into a naval war in 1652 (Jones 1966:49; Rink 1986:169-170). English strategy consisted of stopping Dutch trade through blockades of the coast. They were partially successful and Dutch trade did suffer during the two years of the war. The war was ended by the treaty of Westminster in 1654 in which the English, even though they were in the position of relative victors, did not gain any concessions from the Dutch for trade in the Indies or other areas. Oliver Cromwell, who held power in England as Lord Protector after Charles I was beheaded, had strict Calvinist religious beliefs and considered the Dutch to be the only natural European allies for the English. Therefore, he did not press for concessions in trade, and his primary goal during the peace negotiations was to insure that the Stuarts would not get aid from the United Provinces (Jones 1966:54-56, Rowan 1972:191-192). The Stuarts were allied to the House of Orange through intermarriage, and many exiled royalists had gone to the United Provinces after the execution of

Charles. The States of Holland, as noted above, had been engaged during the entire century in a battle for political dominance with the House of Orange, so Cromwell's demands furthered the political ends of the States.

The years 1654 to 1660 were a period of economic recovery for the United Provinces and of political ascendancy for the States of Holland. The situation changed again in 1660 when the English Commonwealth collapsed and Charles II came from exile in France to assume the throne, for Charles had no special love for the Netherlands. In addition, English commercial interests were well represented in his Parliament. A new Navigation Act was passed in 1660 with essentially the same provisions as the previous Ordinance. In 1662, imports of wine, naval stores, and other goods from the Netherlands were specifically forbidden and, by Acts of 1663, all English colonists were constrained to buy most of their goods from or through England (Jones 1966:56; Noel Hume 1970:287). Commercial pressures between the two countries mounted once again and were augmented by the anti-Calvinist, anti-Republic sentiments of the King and his brother, James, Duke of York (Jones 1966:57; Rowan 1972:197ff; Rink 1986:117-138). Naval and diplomatic skirmishes escalated until war was officially declared in March 1665. The war was inconclusive but left both sides weakened. France, under the supremely autocratic and ambitious Louis XIV, took advantage of the conflict between England and the Netherlands to strengthen its military and territorial position. The conflict was officially ended in July 1667 by the Treaty of Breda. The following year saw the formation of the Triple Alliance, designed to check the growing power of France, between the United Provinces, England, and Sweden (Jones 1966:60). The Alliance was short lived, but for the next several years an uneasy peace endured. James and the English commercial interests, however, still sought war as a means of eliminating Dutch

competition and enriching the crown. War was declared again in 1672 and this time the English position was reenforced by an alliance with the French, (who had been, officially, allies of the Dutch in 1665). This war ended in 1674 with the same results as in 1667: some losses for the English and Dutch and relative gains for the French.

The overall effects of the three Anglo-Dutch wars were to weaken the economic and political position of the Netherlands. The country was further weakened during the last quarter of the seventeenth century by wars with France. By 1706, Dutch commerce had received "wounds ... from every side" according to a contemporary observer (Helvetius 1972:228). The Netherlands never again achieved commercial dominance, and the country continued to lose political power in European affairs during the eighteenth century.

THE ESTABLISHMENT OF NEW NETHERLAND

The Dutch West India Company (WIC) was a chartered company founded in 1621 to control trade with the West Indies, the New Netherlands, and West Africa (Geyl 1958:237; Rink 1986:60-61). New Netherland had been claimed for the Netherlands in 1609 by Henry Hudson, and the intervening years had seen visits to the area by representatives of several groups of Dutch, chiefly Amsterdam, merchants, but no permanent settlement had been established (Condon 1968:3-36; Rink 1986:33-45). The Company was organized into five "Chambers" of local stockholders in Amsterdam, Zeeland, Groningen and Friesland, the Maas (the cities of Rotterdam, Delft and Dordrecht), and West Friesland (Hoorn and Enkhuizen). The interests of Amsterdam were paramount in the Dutch West India Company; Amsterdam merchants provided 40% of the company's original capital and named eight of the Company's nineteen directors (Smith 1973:79; Rink 1986:62-64). The "Heren XIX", the directors, were appointed by the chambers in proportion to their investments: Amsterdam chose

eight, Zealand named four, the others two each, and the States-General one (Smith 1973:79; Rink 1986:63). The directors were merchants whose principal concern was profit, not colonization (Condon 1968:62-68; Smith 1973:146-149; Goodfriend 1975:20; Rink 1986:chapters 2 & 3).

As was normal with chartered companies, the Dutch West India Company was given a trading monopoly and governing privileges for the areas under its jurisdiction. In 1624, 30 families, refugees from the Southern Netherlands, were settled by the Company in New Netherland at the mouth of the Delaware River, Governor's Island near Manhattan, upriver along the Hudson south of present-day Albany, and, possibly, at the mouth of the Connecticut River. This extremely dispersed settlement pattern was designed to strengthen the Company's territorial claims. Their own definition of colonial possession comprised "places, harbors, and rivers ... [occupied] with colonists, cities, or forts, containing at least 50 persons" (West India Company resolution of April 9, 1624, quoted in Rink 1986:73). The next year six ships loaded with seeds, plant shoots, livestock, and people departed for America (Rink 1986:81-82). The instructions from the Company to the commander of the 1625 expedition "confirm the Company's intention to establish a permanent agricultural colony in New Netherland" (Rink 1986:81). Nevertheless, the principal activity of the colony was the fur trade, and, for over a decade, the fur trade was the exclusive monopoly of the Company. Government in New Netherland was in the hands of a Company-appointed Director-General who was required to report directly to Amsterdam and whose decisions had to take into account the entire concerns of the Company, not just one particular settlement. Five Director-Generals served the colony and Company: Peter Minuit (1626-1632); Bastien Jansz. Krol (1632-1633); Wouter van Twiller (1633-1638); Willem Kieft (1638-1647); and Peter Stuyvesant (1647-1664).

Within the Dutch West India Company there was no unified policy toward New Netherland; Company policy changed with shifts in power within the Amsterdam chamber and in response to political events in the Netherlands (Rink 1986:95-97). By 1627, the Company was experiencing financial difficulties and the New Netherland Commission of the Amsterdam chamber (which was in charge of the Company's activities in the colony) was divided in its opinion as to the most profitable course to pursue. One group favored retrenchment of activities while the other advocated colonization of New Netherland using private capital (Rink 1986:97). The matter was debated over the next two years and eventually was resolved in the patroonship plans of 1628 and 1629 (Rink 1986:97-106)⁵. The 1629 charter of "Freedoms and Exemptions" provided for the granting of large pieces of land in the colony to individuals with the stipulation that they would, within four years, people their lands with at least 50 settlers over fifteen years old (Condon 1968:123-126; Rink 1986:104-106). Patroonships were limited to those who had held large amounts of stock in the Company in 1623. Several patroonships were begun, but the only successful one was that of Kiliaen van Rensselaer ("Rensselaerwyck", near present-day Albany).

New Amsterdam, as the settlement on Manhattan Island was known, came to be the center of the Company's activities in the colony and the link between the New and old Netherlands. When Peter Minuit assumed control of New Netherland in 1626, he recognized the hazards of a dispersed population pattern and concentrated the colonists on

⁵. A patroon was an individual allowed to purchase and colonize large tracts of land in New Netherland (Rink 1986:94-116). Their rights of trade were the first breach in the Company's monopoly. They also had rights of governance over their colonists. The patroons had to be members of the Herren XIX, but there was often conflict between their interests and those of the Company.

Manhattan (Rink 1986:84). He used supplies and workers, who had been sent to build a fort for the Company, and constructed houses for the relocated settlers (Rink 1986:85-86). New Amsterdam was thereafter the administrative and commercial center of New Netherland and easily its largest town.

DEVELOPMENT OF NEW NETHERLAND

The colony grew slowly and suffered from persistent underpopulation. Population figures are problematic and various estimates have been made. The figures calculated by Rink are based upon immigration records correlated to references in Company records and are probably the most accurate:

the best guess is that the colony contained no more than five hundred inhabitants in 1628, when the patroonship was first proposed, two thousand five hundred in 1645 following the Indian wars of 1639-43, and certainly no more than nine thousand in 1664 (Rink 1986:158).

Almost all of the very earliest settlers were Walloons (French-speaking protestants from the Southern Netherlands) and their presence was witness to New Netherland's chronic demographic problems. The Netherlands, because of its prosperous economy and religious toleration, was a desirable place to live during the seventeenth century, so there was little pressure on the Dutch to leave their homeland. In addition, the prevailing policies of the Dutch West India Company did not encourage settlement and the terms offered by the patroons to potential colonists were not overly generous. Other Dutch colonies, especially Indonesia and Brazil, were, based on their climates and opportunities for profit making, more popular. Nevertheless, since the Netherlands attracted immigrants from other European countries, these already transplanted or dispossessed groups were a potential source of colonists for the Americas. It

has been estimated that almost half of the immigrants to New Netherland were not Dutch but came from neighboring areas of Germany, France, the Southern Netherlands, and Scandinavia (Cohen 1981:60). Once they arrived in the colony, there is little evidence that, except for Jews (Sephardic Jews, many of whom came to New Amsterdam by way of Brazil) and French Huguenots, they attempted to maintain a separate cultural identity.

Based upon records for the patroonship of Rensselaerwyck, immigrants in the first years after the establishment of the patroonship plan (from 1630 to 1644), included some families but the majority were single young men (Rink 1986:145-147). At least some of these men did not intend to settle permanently in New Netherland and used their terms of service to the patroon or the Company to try to accumulate as many assets as possible before returning to Amsterdam or continuing their travels to other Dutch colonies (Rink 1986:148,158).

There are no direct figures for the years 1644 to 1657, but passenger lists are available for thirty-five ships between 1657 and 1664 (Rink 1986:164). The rate of population growth, through both immigration and natural population expansion, increased dramatically in the last seven to ten years of New Netherland's existence. The character of the later migration had also changed: percentages of non-Dutch immigrants declined significantly; only one-fourth were single men; and approximately seventy percent were families, generally young parents with one or two small children (Rink 1986:167-168). For the first time, single women appeared among the immigrants, often as family servants (Rink 1986:168). It thus appears that New Netherland's population problems were starting to be solved just at the point where colonial development was interrupted by the English conquest in 1664.

Several factors account for the surge in immigration.

The relatively settled political conditions in New Netherland itself were beneficial, the more popular colony of New Holland (Brazil) had been lost to the Portuguese in 1654, and "the threat of war with Great Britain made the colony's stock rise dramatically in the minds of Holland's statesmen and merchants" (Rink 1986:170). In order to counter territorial pressures from the English in New England, the Directors of the West India Company began to encourage colonization through a series of what today would be called advertising campaigns (Rink 1986:172). Publicity, in the form of propaganda pamphlets and descriptions of New Netherland, peaked between 1655 and 1662 (Van Gelder 1982:31). New Netherland was described as a land of unlimited potential that only needed industrious, enthusiastic settlers to yield up its agricultural and mercantile treasures (Van Gelder 1982:32).

The internal politics of New Amsterdam also changed during the last years of New Netherland. The city was granted a municipal charter in 1653 by the States-General and the West India Company. Under this charter, municipal officials responsible for the day-to-day affairs of the city were appointed, first by Stuyvesant and, after 1658, by the outgoing officials with his approval. Municipal laws were almost always based upon those of Amsterdam, as frequent references to "according to the laws of Old Amsterdam" in the ordinances show. The citizens were granted the privilege of the burgher right. The burgher right granted to its holders the privilege "to pursue, within this city, any store, business or handicraft trade" (Nelson 1933:310). The burgher right had to be purchased by those who came to the city to trade, but was given to those who had resided within the city for a year and six weeks before the date of establishment of the burgher right (1657), to those born in the city, or to those who had married native-born wives (Nelson 1933:310). Anyone who did not have the burgher

right could not engage in trade in the city, even if in New Amsterdam for only a brief time. This practice was based on restrictions placed upon trade by medieval European cities that were designed to protect local merchants and collect revenue. Local merchants were thereby protected from competition by outsiders, and it became a better business practice for outside merchants to trade through New Amsterdam merchants rather than directly for themselves. However, it was not uncommon for English merchants from Virginia or New England to purchase New Amsterdam burgher rights in order to trade in the city.

The fur trade was the most important factor in the decision to colonize New Netherland and it remained a Company monopoly until 1639. In 1638 the States-General notified the Directors of the West India Company that they must increase the population of the colony or risk its confiscation by the States (Rink 1986:134). The colony needed people to defend itself against pressure from its English neighbors, who were extending their settlements into territory claimed by the Dutch, and the solution reached by the Amsterdam chamber was threefold: the fur trade would be opened not only to all New Netherlanders but also to all citizens of the United Provinces; private shipping was permitted to go to America, provided it carried a Company supercargo⁶; and 200 acres of land were to be granted to each colonist who was accompanied by five family members or servants (Rink 1986:137).

Trade to New Netherland was thereafter open to all merchants who had the capital and desire to enter into trans-Atlantic commerce. The trade came to be dominated by a small number of Amsterdam merchants who controlled up to fifty percent, and occasionally more, of the trade to New

⁶. A supercargo is an agent who sails with the cargo and is in charge of its sale and purchase.

Amsterdam during the last twenty years of the colony (Rink 1986:175). These Amsterdam merchants invested in land and various enterprises in New Netherland. Other, smaller, merchants participated in the New Netherland trade, but almost all traded from Amsterdam.

This trade provided the people of the settlement with the material culture of the Netherlands. Based upon his study of the artifacts from the site of Fort Orange, near present-day Albany, Paul Huey has concluded that "by 1664 the Dutch at Fort Orange had recreated a highly Europeanized material culture comparable in its completeness to that of the fatherland" (Huey 1988:616). New Netherland in its later years was not a poorly supplied frontier outpost, as were some of the other European colonies, but was rather a reflection, albeit on a smaller scale, of the Netherlands.

THE EARLY YEARS OF ENGLISH RULE

GOVERNMENT AND TRADE

Relations between the Dutch and English in North America were affected by both European tensions and territorial disputes in the New World. England had claims to the lands included in New Netherland and the Dutch claimed land in Connecticut settled by New Englanders. Fur trade revenues and the coastal carrying trade were also sources of conflict. Some New England settlers had urged Parliament to send a force to dislodge the Dutch in New Netherland during the first Anglo-Dutch War, but the invasion did not come to pass before the end of this war (Rink 1986:254-257). The hostilities that preceded the official declaration of the second Anglo-Dutch War gave the English, under the urging of James, Duke of York, the semi-legal excuse they needed to commence action against New Netherland. A fleet was outfitted by the Duke, (who had been given a royal patent by his brother, Charles II, that granted him the territories claimed by the Dutch) in the

spring of 1664 (Rink 1986:262). It reached New Amsterdam in August and demanded the surrender of the town. Stuyvesant wanted to fight to defend the settlement, even though he had less than 150 soldiers and a fort in poor condition, but the people of New Amsterdam were sufficiently intimidated by the fleet and reassured by the liberal surrender terms offered by its commander to persuade the director-general to surrender (Rink 1986:262-263). The colony and its principal town were renamed New York in honor of their new ruler and the area became a proprietary colony under the direct rule of the Duke. He became King James II in 1685 and shortly thereafter (1688) incorporated New York into the Dominion of New England. The Dominion lasted only a year until the Glorious Revolution of 1689 deposed James and replaced him with his daughter Mary and son-in-law, William of Orange. It is a peculiar political twist that ended fifty years of conflict between England and the Netherlands with a member of the House of Orange on the throne of Great Britain.

The English did not make extensive changes in the trading patterns of New York in the early years, in spite of the various Navigation Acts, because English merchants were not yet capable of extending their trading activities into the area (Ritchie 1976:8-9). The English merchants' incapacity was largely due to the strains caused by the Second Anglo-Dutch War (1665-1667). Even after the end of the war, exceptions to the enforcement of the Navigation Acts were frequently permitted by the English governors of New York (Ritchie 1976:13ff). The Third-Anglo Dutch War (1672-1674) permanently changed the position of the former New Netherlands. The Dutch recaptured New York in 1673 during this conflict, with the same ease as the English had nine years earlier. The Dutch repossession was brief, however, since the colony was permanently ceded to England at the close of the war in 1674 in return for English concessions to the Dutch in the Caribbean. After 1674,

London merchants began to seek trade with New York. The Duke responded by forbidding direct trade with the Netherlands. Trade with the Netherlands was possible only under a special passport from the Duke, provided ships stopped at English ports to pay additional duties. Some New York City merchants with well-established trading connections in Amsterdam made it a regular practice to have their ships call at Falmouth or Dover, where port officials were reputedly lax about collecting duties, rather than at larger English ports (Ritchie 1976:17). The notarial records of the city of Amsterdam contain references to the high taxes levied by the British upon this trade. By the end of the 1680s, almost all of the large Amsterdam merchants who had been instrumental in the American trade had sold their lands and properties in New Netherland (Rink 1986:205). The exception was the Van Rensselaer family, some of whose members had settled in the New World and who had become naturalized British citizens after 1664.

A number of other Dutch-American merchants continued to trade with the Netherlands under the restrictions imposed by the English. Even if they had to stop in England on the way from Amsterdam to New York, they still transported Dutch goods to the people of the city. For instance, the Philipse family, whose progenitor began his service in the colony as a carpenter for the Dutch West India Company, had a fleet of merchant vessels that traded in the West Indies, Africa, and the Indian Ocean as well as in the Netherlands and along the east coast of North America (Judd 1974:2). Similarly, the Livingston family (Robert Livingston was a Scot originally in the service of the Van Rensselaers, his wife was Alida Schuyler whose first husband had been a Van Rensselaer), had family and trading connections in Amsterdam and Scotland (Biemer 1982). Both the Philipse and Livingston families became wealthy and politically powerful under English rule.

Other merchants attempted to circumvent the Navigation

Acts through outright smuggling. Smugglers continued to bring their cargos to New York City throughout the seventeenth century, often with the connivance of government officials (Goodwin 1921:169ff; Archdeacon 1976:130). Respectable merchants engaged in this illegal trade, and, when the current governor attempted to curtail it, strenuous objections were expressed by New Yorkers (Archdeacon 1976:131). The end of smuggling in New York City was correlated more with increasing British control of the seas in the eighteenth century than with obedience to legalities on the part of New York merchants.

Dutch-American New York merchants sought to continue to trade with the Netherlands because they wanted to maintain their accustomed, profitable trade. It is also likely that they desired to continue to obtain familiar goods from the Netherlands.

ANGLICIZATION DURING THE SEVENTEENTH CENTURY

Conventional historical theory has held that the Dutch in New York City underwent, during the last third of the seventeenth century, a period of anglicization that entailed a transference of political and monetary power from established Dutch to newly-arrived English and French⁷ merchants.

Assessment [i.e., tax] rolls only weakly reflect the great social change which must have been obvious to New Yorkers at the end of the seventeenth century. To the average Dutch citizen, whose family probably had resided in Manhattan for at least a generation, the upper classes must have seemed unduly foreign and filled with late English and French arrivals. The Dutch remained the most sizable group in every economic interval, but the burghers could not have found that fact comforting; the newer ethnic groups, in proportion to their numbers, bulked large among the wealthy.

⁷ The revocation of the Edict of Nantes in 1685 by Louis XIV compelled most French protestants to leave their country. Many went to North America in search of religious toleration.

Indeed, the combined Anglo-French contingent outnumbered the Dutch in the highest interval (Archdeacon 1974:68).

Archdeacon's assertions were based on a study of tax assessments and census data for 1703 (Archdeacon 1974:64). Goodfriend, however, had a different interpretation.

Statistical analysis confirms the encroachments of English and French newcomers in the occupational, wealth, and political spheres formerly occupied by the Dutch. But given the new locus of power in society and the influx of immigrants, the Dutch position in New York City society during the late seventeenth century did not deteriorate as radically as Archdeacon suggests... The Dutch maintained a basic role in the city's economic life. The craftsmen who formed the heart of the city's productive community carried on their trades and passed them on to their sons and nephews. Wealthy mercantile families persisted and prospered ... [C]ultural change in seventeenth century New York City as a whole was slow. English policy was accommodationist and consequently legitimacy was not reserved exclusively for Anglo-American culture ... Not only was British policy conciliatory, but strong counter pressure against acculturation emanated from cultural institutions such as the Dutch and French churches, especially regarding language behavior. Ethnically enclosed social arrangements also bolstered cultural identity. Thus, familial pressure as well as community opinion were arrayed against acculturation. (Goodfriend 1975:258-259 and 264-265).

Part of the difference between these two interpretations stemmed from Archdeacon's erroneous assumption that demographic circumstances in 1703 were very similar to those in the late 1680s. In fact, large-scale immigration and a devastating yellow fever epidemic in 1702 had altered the city's demography (Goodfriend 1975:275). Another reason was that Archdeacon chose to emphasize changes while Goodfriend concentrated on continuity. Anglicization did occur, but other cultural traditions persisted. Goodfriend postulated that ethnic polarization increased during the last third of the century with the result that "participation in community life more and more

came to be framed in terms of ethnic components" (Goodfriend 1975:271). If Goodfriend's analysis of New York society is correct, there should be a measurable difference between the material culture -- including foodways -- of New York and that of other British settlements in the Northeast during the latter part of the 1600s. There should also be differences between the household goods of Anglo-American and Dutch-American families in New York City.

SUMMARY

The seventeenth century was the Dutch Golden Age. Profits from trade ensured a stable economy that not only provided for the basic needs of the citizens of the Netherlands but also supplied funds for luxuries and for expansion of mercantile activities. Capital for investment in trade had become available as a result of the successful revolt against Spanish rule in the previous century; this available capital and their maritime skills were the foundations of Dutch commercial dominance. Dutch merchants controlled much of the inter-European carrying trade because they could offer favorable credit terms and because they had swift, efficient merchant ships. The Dutch expanded their trade to all of the known world during the first half of the century: the East and West Indies, Africa, and North and South America were all included in the trading spheres of the Dutch East and West India Companies. However, wars with England and France during the last half of the century weakened the Dutch economy, and by the first decades of the eighteenth century England had surpassed the Netherlands in commerce. North America was particularly affected by the change from Dutch to English commercial dominance.

New Netherland, established by the Dutch West India Company to control the fur trade, was a small but tightly integrated part of the Dutch colonial mercantile system. New Amsterdam, the principal settlement of the colony, was a

town whose trading ties were with one city, Amsterdam, but whose population included people from many different European backgrounds, as well as Africans and Native Americans. The English usurpation of New Netherland in 1664 disrupted trading patterns and immigration at the point when the colony was experiencing its greatest growth and prosperity. After 1664, trade continued with the Netherlands, but, due to changes in the relative economic positions of England and Holland and more rigorous English control of colonial trade, Dutch trade became increasingly less important for New York City after the 1680s.

It remains to be seen what the effects of this particular colonial situation were on the foodways that developed in New Amsterdam/New York City. However, before foodways in the New World can be considered, it will be necessary to examine European foodways, specifically Dutch foodways, in order to understand the base from which adaptations to a new social and natural environment emerged. Chapter 3 reviews what has been written about seventeenth century Dutch foodways. Chapter 4 combines the visual evidence from genre paintings with the information from documents to reconstruct Dutch foodways.

CHAPTER 3: DUTCH DOCUMENTS

INTRODUCTION

Throughout the seventeenth century, the Netherlands, as has been outlined in Chapter 2, were a world power enjoying an economic and artistic Golden Age. The Netherlands had the strongest economy in Europe for most of the century and it was the only European country to be solvent for the entire period. The Dutch enjoyed the highest standard of living on the continent; with the probable exception of England, it was the only country that was not susceptible to periodic severe food shortages (Van Nierop 1983: 8-13; Schama 1987: 166-169).

Twentieth century writers have examined seventeenth century meals as part of historical studies of the Dutch Golden Age, although there has been little anthropologically-oriented analysis of foodways. Dr. L. Burema's 1953 survey of food in the Netherlands from the middle ages to the twentieth century, De Voeding in Nederland van de Middeleeuwen tot de Twintigste Eeuw, is the most comprehensive survey but is impressionistic and not well-integrated. Simon Schama in his 1987 study of Dutch seventeenth-century mentalite, The Embarrassment of Riches, discussed food as part of the cultural landscape of the times. Henk Van Nierop analyzed quantities and types of food during the seventeenth century from a Marxist, sociological point of view in the monograph "Het Tijdperk van het Brood" (Van Nierop 1983). Several other modern writers have discussed seventeenth century foods but most draw more or less on the same limited number of primary sources (Forbes 1963, Van't Veer 1966, Van Winter 1967).

Seventeenth century primary sources include cookbooks and books about health and diet. The most famous cookbook is De Verstandige Kock. Cookbooks not only reproduced recipes but also presented models for living healthy, moral

lives (Schama 1987:158-159). The ideal was to provide wholesome plain food in plentiful amounts -- to equally avoid gluttony, intemperance, and hunger. This ideal was also expressed in the treatises on health and household management written in the seventeenth century. One of the most popular was Jan van Beverwijck's Schat der Gesonthevt en Ongesonthevt (The Treasure of Health and Sickness). Another influential work was Simon Blankaart's De Borgerlyke Tafel (The Burger's Table). Both Blankaart and Van Beverwijck were physicians; Van Beverwijck was also a regent of the city of Dordrecht and a member of the States-General, the country's legislature (Schama 1987:418-419). Their books were very influential in their own times and have been referred to by almost all later writers.

Other information about food is found in documents that set out the meals provided in charitable institutions and on board ships. Sections of the records of publically-supported institutions, such as almshouses, orphanages, and insane asylums, have been preserved and include lists of the inmates' meals. In addition, the rations provided to men on the ships of the East and West India Companies are part of the historical record. These institutional menus and ships' rations have also been used by historians (Burema 1953; Van Nierop 1983; Schama 1987).

This chapter will first summarize the conclusions of historians who have surveyed Dutch food and will proceed to an examination of De Verstandige Kock and Blankaart's De Borgerlyke Tafel.

HISTORICAL RECONSTRUCTIONS

European standards of living had declined in general after 1500; as a result, meat consumption per capita was reduced from former levels, especially after 1550 (Braudel 1981: 194-199). The fourteenth and fifteenth centuries had been a time of relative abundance, but population increases

after 1500 caused food shortages and higher prices. Consumption of meat decreased as Europeans substituted grain products, especially bread, for animal protein. The Netherlands shared this pattern through most of the sixteenth century until the prosperity that followed their successful revolt against their Spanish overlords resulted in higher wages and relatively cheaper food (Van Nierop 1983:8-9; Schama 1987:167).

The Dutch produced most of their own food with the notable exception of grain. The low-lying, heavy soils of the Netherlands were not suitable for growing grain, but imports of wheat and rye from the Baltic and North Sea regions enabled Dutch farmers to devote their land to the production of legumes, vegetables, and fruits. Much acreage was also in pasture; a large portion of the milk produced was processed into butter and cheese for home consumption and export (Burema 1953:91).

DAILY MEALS

According to Burema's general explanation of seventeenth century diet, the Dutch ate three meals a day and often added an afternoon snack. Breakfast (ontbijt) was a generally a simple meal: bread with butter or cheese, and water, milk, mead, or beer to drink (Burema 1953:89). There could be variation in the types of bread and cheeses eaten, from coarse rye or barley bread to fine white bread, and aged or new cheeses. Bread with both cheese and butter was said to be eaten by rich people (Burema 1953:90-92), but the consumption of both together was frowned upon in general as too sumptuous (Schama 1987:163). Rich households might also have meat for breakfast. In summer in the country, breakfast might consist of sweet and sour cream with cherries, strawberries, and rusks, in addition to the usual bread, butter and cheese.

The midday meal (middagmaal) was the largest meal of

the day. It could include bread, meat, and side dishes of vegetables, fish, mussels or other shell fish, fruit or salad (Burema 1953:96-97). Examples of dishes were peas with butter and vinegar, green or dried beans with prunes, butter, ginger and sage, wheat bread sopped in meat or chicken broth, stewed sweet roots with fish, cold cooked vegetables, carrots stewed with pot herbs and vinegar, or hutspot (a stew of meats and vegetables). Fish could be either fresh or dried, especially dried cod, or pickled herring. Mussels, oysters, lobsters, and crabs were also served. Burema implied that fish was more common than meat, for he said "When there was no fish, men ate meat"⁸ (Burema 1953:96). Fresh meat was eaten in the summer, in the winter it was salt meat: on Sundays a piece of salted meat was taken out of the vat, cooked, and served for the rest of the week. The last foods to be served at the midday dinner were fruits, salads (greens dressed with oil or melted butter and vinegar, and sometimes also salt, cheese, and various herbs), vegetable mashes (especially cabbage cooked with bacon and milk), cookies, cakes, and, for the rich more so than for the common burgers, tarts (Burema 1953:97).

Burema quoted an eighteenth century writer who recalled three examples of midday meals from his youth (Burema 1953:95). The first simple meal was composed of dishes of groats, porridge, buckwheat cakes, and water. The second meal consisted of broth, green beans with sausage, gray peas, roasted veal, and beef. The third was pheasant, partridge, or other costly wild bird, fancy cakes, and confections with all sorts of wine. Although it was not stated as such, it was clear from the context that Burema presented these three as representative of typical midday meals in poor, middling, and rich households.

In the afternoon, a snack of bread with butter or

⁸ "Was er geen vis, dan at men vlees ..."

cheese would often be eaten with beer or water (Burema 1953:106).

The evening meal (avondmaal) was simple and again could consist of bread with butter or cheese, or could be various gruels or porridges, or leftover dishes from dinner (Burema 1953:106).

Annie van't Veer in her Oud-Hollands Kookboek gives the same general daily menu (Van't Veer 1966:76). Breakfast was bread with butter or cheese or possibly leftovers from the previous day. Dinner at midday was a stew of meat or fish with side dishes of vegetables, salads, or fruit. Rice, pancakes, or "sweets" were also served. In the afternoon, people would snack on bread, cheese, beer, and sweet foods like raisins and almonds. Supper in the evening consisted of the remains of the noon meal with butter and cheese, and the possible addition of cabbage soup, bread porridge, or various gruels or mushes.

In both Burema's and Van't Veer's accounts, milk and beer were the most common drinks. Beer was also drunk frequently outside of mealtimes; wine, and, later in the seventeenth century, gin and brandy were also consumed in great quantities (Schama 1987:188-193). Wine was imported from France and Spain, but brewing was a local industry and towns competed for the reputation of brewing the best beer in the country. According to Schama (1987:192), beer was "the universal ... breakfast beverage as well as tavern drink ... [it had] eulogies heaped on it by virtually all medical authorities and popular writers."

BREAD

The principal ingredient of beer, after water, is grain. Bread occupied a prominent position in the reconstructions of Burema and Van't Veer, and bread is, of course, also made from grain. Thus, bread, beer, and various porridges and gruels made from grain made up a large

portion of the diet. The most common grains used for bread, beer, and porridge were wheat, rye, and barley. Wheat bread was preferred to rye, but rye bread⁹ was also common, since it was a less expensive grain (Van Nierop 1983:13). Van Beverwijck, as cited by Burema (1953:89-90), listed breads according to his opinion of their quality. First came white bread or "Gentlemen's Bread," made of the purest and finest flour¹⁰. Then came wheat bread from which the coarsest bran had been removed; next wheat bread with all its bran included. Last of the wheat breads was bread that was almost all bran. Rusks or "twice-baked" bread Van Beverwijck said were not bad. Rye bread was the bread of poorer people (Burema 1953:91). Barley bread was not considered to be very good, but was still baked by some.

Most bread was not prepared at home, except in wealthy households, but was purchased from bakers. In addition to loaves of bread in various sizes, bakers made fancy breads and cookies, rolls, and pretzels (Kistemaker 1983:221). Some breads were reserved for special days, especially sweet fancy breads (duivekaters) made with currants (Burema 1953:91). A few drawings or engravings of bakers at work show a worker standing in a trough kneading dough with his feet (Barnes 1991:37). According to Dutch historians, wheat bread was kneaded by hand but rye bread, perhaps because it was made in larger quantities or because the dough was harder to handle, was kneaded by treading (Museum Boymans-van Beuningen 1983:32).

Although the Netherlands grew little grain, the country as a whole was well supplied with wheat and rye through its

⁹ Seventeenth century rye bread was much heavier and coarser than what people today call rye bread. Modern rye bread is made from a mixture of rye and wheat flours.

¹⁰ "White" loaves were made of fine flour that had been well bolted -- i.e., sieved through fine mesh to remove as much bran as possible.

trade with the North Sea countries (Van Nierop 1983:8). The Dutch in the sixteenth and seventeenth centuries were the principal grain handlers of Europe; they bought wheat and rye in Poland, Prussia, Swedish Pomerania, and Livonia and sold it in Southern Europe (Van Nierop 1983:8; Schama 1987:168). The cities of Amsterdam, Rotterdam, and Middleburg had structures capable of storing large amounts of grain. Amsterdam, however, was the most powerful center of the grain trade. For the most part, ample supplies of grain were available to Netherlanders, and, in times of short supply, the municipal authorities took steps to ensure that grain would be offered for sale to local merchants before it was exported. During grain shortages, in order to prevent insurrections and food riots, municipal authorities held themselves responsible for providing at least a minimum amount of food for their inhabitants (Van Nierop 1983:10). For instance, in years of poor harvests or interrupted trade, Amsterdam laid in sufficient grain supplies to provide for its inhabitants and the export of grain was forbidden until it had been offered for sale locally (Van Nierop 1983:12). As early as the fifteenth century, the city had ordered rich merchants to have set supplies of grain in their warehouses for purchase by bakers or by the city (Van Nierop 1983:10). The city used this grain to bake "city bread" which was sold to the poor at a reduced rate (Van Nierop 1983:11). This was a form of municipal welfare and was only offered to people who could prove that they were citizens of Amsterdam and were not habitual loafers or beggars (Van Nierop 1983:13).

It has been calculated that, based upon the known population of Amsterdam and recorded amounts of grain imported for the use of the city, an average Amsterdammer at the end of the seventeenth century could have obtained between 2,600 and 3,000 calories per day from bread alone (Van Nierop 1983:13). This would provide sufficient

calories for most people. Calculations for 1557 yielded somewhat lower figures, approximately 1,800 to 1,900 calories per day from bread (Van Nierop 1983:13). 1557 was not a good year for the grain trade, so these figures can be considered as the probable low point for the late sixteenth and seventeenth centuries. Based on these approximate calculations, it is apparent that most Amsterdammers could have depended heavily on bread products in their daily diets.

Bakers, and other craftsmen in seventeenth century Dutch cities, were still organized into powerful guilds that controlled training, prices, and quality of goods. In addition, the municipal officials of Amsterdam and other Dutch cities regulated the daily activities of their citizen craftsmen in order to protect municipal stability and prosperity. For bakers, this meant that the prices charged for bread, standard weights of loaves, and quality of bread were regulated by the city. This "bread-setting" began in the middle of the fifteenth century and continued in Amsterdam until the middle of the nineteenth century (Kistemaker 1983:219; Van Nierop 1983:12). The officials in charge of enforcing these laws, the "bread-weighers," fixed the price of bread according to the current price of grain. Although they were municipal officials and were responsible to the government of the city, they were elected by the bakers from among their own ranks (Kistemaker 1983:220).

DAIRY PRODUCTS AND EGGS

Burema mentions butter and cheese as the most common foods after bread. Contemporary Europeans characterized the Dutch as "cheese eaters" or as "a nation of cheese mongers", but the Dutch themselves in their writings used the image of "Jan Kees" (John Cheese) to portray the national ideal of a plain, simple, but strong citizen (Schama 1987:163-164). Schama considers cheese (and herring) to be "the great

levelers, the universal enjoyment of which dissolved rank within the national community" (1987:163). While it might be somewhat speculative to assign such a symbolic role to cheese, by all accounts it was nevertheless universally eaten. Various sorts and qualities of both butter and cheese were available, but some of the best was reserved for export (Burema 1953:92). "Old" (i.e., aged) and "new" were the most common adjectives used to describe cheeses, but varieties came to be known for the towns or regions that produced them. Gouda and Edam cheeses are perhaps the most familiar, but Leiden cheese flavored with cumin seeds continues to be well-known. Most cheeses were probably made by individual dairy farmers and sold in the markets.

Butter was widely used as both a food and as a sauce, according to Burema. Van Beverwyck maintained that the best way to eat butter was with bread, called in Dutch by one word "boterham" (Burema 1953:91).

Although a large percentage of the milk produced was made into butter, whey, and cheese, dairy farmers also sold fresh milk to city and town dwellers. In Amsterdam, for instance, milk came into the city from the countryside over the IJ in special milk barges (Van Nierop 1983:21). Milk was a common beverage for most people, and, according to Van Beverwijck, was especially important for women (Burema 1953:93). Cows' milk was most available, but sheep's and goats' milk was also drunk and made into cheese and butter (Burema 1953:93).

Fresh eggs also came into the cities over the waterways (Van Nierop 1983:21). Neither Burema nor Van't Veer took much notice of eggs, but Van Nierop (1983:21) said that eggs were cheap and were eaten especially by the poor.

VEGETABLES AND FRUITS

The towns of the Netherlands were well supplied with fresh vegetables and fruits by the farmers who brought their

products into the town's markets through the system of inland waterways (Van Nierop 1983:20). The cultivation of vegetables and fruits, as noted above, had been encouraged by Dutch control of the North Sea grain supplies in the sixteenth century. In the seventeenth century, extensive exports of vegetables from the Netherlands to England led English agriculturalists to take note of Dutch advances in market gardening (Burema 1953:100). Town dwellers not only purchased vegetables and fruits in markets but also owned plots of land outside of the city walls where they planted kitchen gardens (Van Nierop 1983:20). Fruit trees were also common in the city and in the garden plots. According to Van Nierop (1983:21), the most common vegetables in the markets were root crops (carrots, parsnips, turnips, and beets), cabbages, onions, garlic, beans, and other legumes; the most popular fruits were apples, pears, and cherries. Burema (1953:89), as noted above, listed strawberries and currants with sweet or sour cream as summer breakfast food in the country, and De Verstandige Kock included many recipes for preserving fruits. Nevertheless, some people distrusted fruits and raw vegetables, especially leafy varieties like spinach and lettuce, and did not consider it healthy to eat them (Van Nierop 1983:21). Plums and some varieties of cherries were also suspected of spreading the plague, since they resembled the buboes characteristic of this disease (Schama 1987:171). Both Blankaart and the anonymous author of De Verstandige Kock (see below), however, were advocates of vegetables.

FISH AND MEAT

Fish was at least as important as meat for town dwellers; it could be eaten fresh, salted, dried, or smoked (Van Nierop 1983:22; Schama 1987:169-170). Fishes were divided into deep water types (zeevisserij), those from the inland salt waters (zoetwatervis), and those from rivers

(rivervis). Fish could be bought at the fish markets or, less commonly, directly from boats at their berths. The fish sellers were united in the Saint Peters Guild, and, like the bakers, they were regulated both by the city and their own internal standards (Van Nierop 1983:23).

Many varieties of fish were eaten, but the herring occupied a special place in Dutch foodways. The prosperity of the Netherlands was laid on a foundation of trade and fishing, and the most important fish for trade was the herring (Braudel 1981:215; Schama 1987:165). As noted above, the herring, along with cheese, was a national food with patriotic associations and was celebrated in paintings and poetry (Schama 1987:164-165). In the theater, the comic characters "Pickelharing" and "Hans Wurst" were familiar figures in plays written for performance at vastenavond (the three days of festival preceding Lent). The herring itself was a symbol of the fasting and penitence of the Lenten period (Schama 1987:183). Van Nierop (1983:22-23) said that eels, dried fish, and red herrings were eaten especially by the poor.

Like fish, meat was sold at municipally-controlled markets and butchers' prices and meat quality were regulated by the city. In addition to market purchases of portions of meat, it was common for families in towns and cities to buy a whole pig and/or ox carcass during the fall slagmaand (slaughtering time); fresh meat was eaten for a time and the remainder of the carcass was preserved, by salting or smoking, for consumption during the winter and spring (Burema 1953:103; Schama 1987:170,183). Meat preservation in this case was a household task rather than a task for food-preparation specialists.

INSTITUTIONAL MEALS

Information about types of foods eaten by people whose diet was stipulated by law can be found in documents that

describe institutional or shipboard foods. For instance, the menu for the Insane Asylum (the Dolhuis) in Amsterdam provided for two meals a day. The first meal was served about 10 A.M. and changed each day: Sunday, it was groats¹¹ with smoked or cooked meat; Monday green peas with sour whey and meat; Tuesday and Wednesday various vegetables or fruits with bacon or sausage; Thursday gray peas with meat; Friday in the summer veal or lamb broth, in the winter cooked meat with apples; and Saturday white beans with bread and butter or dried fish (Van Nierop 1983:24, Burema 1953:112-113). The evening meal was always some form of grain porridge or gruel cooked with milk, buttermilk, or beer, along with bread and cheese. Although this menu does not contain large amounts of bread, Van Nierop states that "a lively trade in slices of bread with butter took place among the patients"¹² (Van Nierop 1983:24). This implies that the patients were either saving their evening bread to trade or else that bread and butter were available to them on a limited basis outside of regular mealtimes. In any case, bread was served at least once every day and the customary evening meal of grain porridges, probably made from wheat or rye, increased the proportion of grain products in the diet. The Dolhuis was a symbol of municipal wealth and munificence (Van Nierop 1983:24), and as such might have provided its inhabitants with a richer than average diet, but it is unlikely that this diet was very different from that of Amsterdammers of low means: dietary basics were bread, grain

¹¹ Gort, which the dictionary translates as "groats" (Jockin-la Bastide and Van Kooten 1980:200), is a rather ambiguous word. Groats are cracked wheat, according to Waverly Root (1980:158), but English language dictionaries generally define groats as coarsely cracked wheat or oats, and probably the best known groats today are buckwheat (kasha). It is likely but not certain that the groats mentioned on the Dolhuis menus were wheat.

¹² "de levendige handle in boterhammen, die tussen de patienten plaatsvond"

porridges, legumes, and dairy products.

The menu of the Amsterdam ziekenhuis (the hospital for the sick and aged) was similar but had somewhat smaller amounts of meat and legumes (Burema 1953:112). Breakfast was bread and milk. The midday meal varied according to the day: Sunday and Wednesday, vegetable soup with meat; Monday and Saturday, groats with butter and milk; Tuesday and Friday, vegetables stewed with beef suet and broth; Thursday, rice with butter and milk. The evening meal was groats with milk or barley meal with buttermilk.

Students at universities and academies were also provided with a proscribed diet, but, as might be expected, they were better-fed than the inhabitants of the municipal institutions. Students' diets were often regulated by law, as were institutional menus and seamen's meals, and the authorities recognized the need for palatable and varied food (Schama 1987:175). Students in Groningen, for example, in 1634 were offered the fare shown in Table 3.1 (Burema 1953:114-115).

TABLE 3.1

MIDDAY MEAL

Sunday	bread sop with tallow and butter; warm smoked meat; pot-cooked meat with vegetables; parsnips or carrots; wheat bread; butter and cheese
Monday	gray peas with fat or butter; coarse ¹³ meat with bacon; butter and cheese
Tuesday	warm beer and bread, or a cold dish; coarse flesh; pancakes; butter and cheese
Wednesday	porridge; warm coarse meat; pot-cooked meat, butter and cheese
Thursday	green or yellow peas; coarse meat; warm bacon; butter and cheese
Friday	porridge; coarse meat or fish; dried fish; dried sole; salt cod; butter and cheese
Saturday	summer or winter vegetable mashes; coarse meat or fish; butter and cheese

¹³ "Grof vlees" is the term used. The type of "coarse" meat is not specified.

EVENING MEAL

Sunday	milk and whey; coarse meat; a roast; rolls [made of wheat]; butter and cheese
Monday	soup and groats; coarse meat; pot-cooked meat; butter and cheese
Tuesday	soup and bread; coarse meat; pot-cooked meat; butter and cheese
Wednesday	milk and bread; coarse meat; pot-cooked meat; butter and cheese
Thursday	soup and groats; coarse meat; pot-cooked meat; butter and cheese
Friday	milk and bread; coarse meat or fish; butter and cheese
Saturday	in summer, whey sop or beer and bread; in winter, coarse meat or pancakes or fish; and always butter and cheese

In summary, the midday meal commonly had three courses: the first was a grain porridge, or legumes, or bread sopped in fat or beer; the second was meat; the third course was some sort of stewed meat, probably cooked with vegetables, or dried or salted fish. The evening meal began with some combination of milk, groats, soup, and bread; then more meat and stewed meat, and butter and cheese. On Saturdays and Sundays, the fare was varied by the addition of roasted meat, fine rolls, and pancakes. Breakfast was the familiar bread, butter, and cheese.

The students were served at tables for eight people and amounts of food were calculated for each group of eight. Butter was limited in quantity to a quarter pound for each table per meal, but "unlimited" [onbeperkt] amounts of ryebread, cheese, and coarse meat were available. Pot-cooked meat, usually veal, beef, or mutton, was served in a large dish containing two pounds of meat for each eight; roast portions were three pounds per table. Fish was dressed with a simple sauce of melted butter and mustard. Beer was the common drink at all times.

The menu set down for students at Leiden was similar to the above Groningen regimen (Schama 1987:175). Both groups of students could have eaten meat or fish at least once a day, and certainly included large quantities of dairy products among their foods, but their diets were poor in fresh fruits and vegetables and did not emphasize legumes. If the students' diet is considered to be representative of the Dutch middle class, and the Dolhuis menu representative of the lower class, it appears that both groups relied heavily on grains and dairy products, but the less well-off substituted legumes for meat protein. This observation agrees with the eighteenth century writer cited by Burema. The relative lack of fruits and vegetables in the students' diet was probably not due to their unavailability but rather was likely to be the result of logistical problems entailed

in purchasing ingredients and preparing meals for large numbers of people.

RATIONS ON BOARD SHIPS

Sailors were another group who relied on peas and beans as significant parts of their diet. On ships making the long journey to the East Indies, casks of dried peas and beans were carried as part of the sailor's rations (Van Nierop 1983:17). Common weekly rations for East India crewmen were three to five pounds of bread, three-quarters to one and a half pounds of meat, similar amounts of bacon, one-half to one pound of dried fish, and a half-pound of butter in addition to butter or oil with vinegar as sauces (Van Nierop 1983:17). Another source quoted by both Van Nierop and Burema records a somewhat different menu: breakfast of warm groats cooked with prunes and butter or other fat; midday, a dish of white peas and a dish of dried fish with a sauce of butter and mustard, or (on Sundays and Thursdays) gray peas followed by a dish of meat or bacon (Van Nierop 1983:18, Burema 1953:108). The evening meal is omitted from this list, although the author remarked that the men's bowls (bakken) were filled up three times daily, but it is noted that each man received four pounds of bread weekly along with beverages (beer, wine, and brandy) and butter, oil, and vinegar. A document from 1654 specifies that each man, in addition to the daily communal rations of groats, pickled herring, gray and green peas, dried fish and unidentified meat, should individually receive five pounds of hard bread (ship's bread or hard tack¹⁴), one pound of cheese, and one-half pound of butter per week (Burema 1953:110). Thus, dried legumes, preserved meats and fish, and bread (usually dry), all made palatable with butter,

¹⁴ Ship's bread or hardtack are unsalted, dry, hard biscuits that stay edible much longer than fresh breads.

oil, vinegar, and occasionally, mustard, were central to sailors' meals. The amounts of meat and bread specified were less generous than those mandated for the Leiden students. Officers, however, received double rations (Van Nierop 1983:18; Burema 1953:108).

These sources provide a summary of the diet of the lower and institutionally-fed middle classes. None of the above sources discussed food preparation methods in detail; the recipes printed in De Verstandige Kock are the best source for the common fare of middle class households as well as for methods of food preparation. The cookbook was probably also used for some dishes by cooks in wealthy households.

DE VERSTANDIGE KOCK

During the seventeenth century, many of the books written and published in the Netherlands were moral treatises books whose intents were to teach people how to lead virtuous lives. The cookbook De Verstandige Kock was part of this literary tradition; it was part of a household manual that contained information on, among other subjects, gardening, medicine, housekeeping, brewing, and how to lead an orderly and moral life (Schama 1987:158). De Verstandige Kock was often bound and sold separately, however. De Verstandige Kock of Sorghvuldige Huys-houdster (The Wise [or Intelligent or Sensible¹⁵] Cook or Careful Householder) was first published in 1668 and was republished often until the early nineteenth century (Rose 1988). A few cookbooks had already been published in Dutch during the previous century and a half (Van Winter 1976:141,148), but De Verstandige Kock became "the standard cookery book designed for

¹⁵ The word "verstandige" can be translated as intelligent, sensible, or wise (Jockin-la-Bastide and Van Kooten 1978:623).

households of the middling sort" (Schama 1987:158). It included sections on preserving meats (Hollandtse Slachtyde), and on making fruit preserves and sweets (Verstandige Confituurmaker). It is the best available reference for seventeenth-century food preparation techniques and ingredients.

Plate 3.1

Cover illustration of De Verstandige Kock. Birds, hare, and ham hanging at upper left above fish on a dish. Birds and roasts on spit with dripping pans. Stove at left, open hearth center, and baking oven at right. Man with baker's paddle and man rolling out dough.



The cover illustration of De Verstandige Kock showed a room with two men preparing various foods (Plate 3.1). The men shown in this illustration were quite possibly meant to be taken as chefs employed in an elite household. The illustration of male chefs could be used as an argument against the appropriateness of this cookbook as the best representative of everyday cuisine prepared by housewives or female servants in middle class households, but, following Schama and Burema, it will here be used as such. The position taken here is that the illustration of men (professional food preparation specialists), in a well-equipped kitchen was chosen to legitimize and formalize the publication of such mundane and common-knowledge things as recipes.

Four different cooking methods were illustrated on the cover (Plate 3.1). Boiling/stewing was done in a large metal (probably copper) vessel on a tiled stove (at left). Birds and roasts were grilled on spits before an open fire with dripping pans set underneath to catch the fat and juices (center). Various foods, likely hutspot variations, were boiled in a metal pot (copper or iron) hung over the open fire (center). Meanwhile, a brick oven set into the wall next to the hearth was heated¹⁶ (right). One of the men was rolling out pastry dough on a table that held already formed pasty¹⁷ crusts, and it is presumably these

¹⁶ Brick ovens of this type do not cook with direct flame. Instead, a fire is made inside them and allowed to burn and heat the bricks. When the fire has burned for a sufficient time, the ashes are raked out and food is put into the oven. Food is baked by heat released from the hot bricks.

¹⁷ According to Rose (1989:126-127), a pasty has a stiff crust made from a raised dough; in contrast a tart has a short-crust (i.e., non-raised) dough and, usually, no top crust. From the paintings (see Chapter 4), it can be seen that pasties had tall, straight sides and complete top and bottom crusts. According to De Verstandige Kock recipes for "Pasteyen", the filling was meat-based but could include fruit

pasties that would be baked in the oven. A hare or rabbit, various birds, and hams hung from the ceiling, and some fish rested on a large colander balanced on a basket. This picture was probably designed to illustrate all of the common cooking methods of the time. It is likely, however, that the majority of cooking in most households was done over an open fire. De Verstandige Kock began with instructions about how to build a stove like the one pictured in Plate 3.1, so it is likely that such stoves were uncommon in the Netherlands at this time.

De Verstandige Kock was divided into sections with recipes for Salads and Vegetables, Meat, Fish, Baked Goods, Tarts, and Pasties (see Appendix A). Of the 136 recipes, 57 had meats (including birds and rabbits) as the main ingredient, 12 were sauces for meats, 17 were for fish, one was a sauce for fish, and the remaining 49 had fruits (20), vegetables (18), wheat flour (7), eggs (2), cream (1), and cheese (1) as the main ingredients. Forty five of the meat recipes called for one type of meat as the main ingredient: hen (13); other domestic birds (7); veal (8); mutton (6); mutton or veal (3); rabbits (2); suckling pig (1); beef (1); tongue (1); and calf's foot (1). There were no recipes for bread, since it was not usually baked at home, but wheat bread, often white bread, was frequently specified as an ingredient, generally as a thickener, as in the vegetable mash recipe given below. There were no recipes for simple dishes like grain porridges (although there were recipes for various types of pancakes), and it is probable that the authors of this book assumed that all cooks would know how to prepare such simple foods -- just put into a pot with water and boil for awhile. There were also no instructions

(especially currants, prunes and lemons); the recipes for "Taerten" were primarily fruit, but there were also recipes for meat, cheese, and spinach tarts.

for cooking ham or other preserved meats, although bacon was often called for as an ingredient in various recipes. Ham can be eaten without further preparation, but other salted cuts of pork and beef would probably have required at least boiling before eating; perhaps it was also assumed that cooks would be aware of this uncomplicated procedure.

Butter appeared in almost all of the recipes in the capacity of flavoring agent, binder, and/or enriching ingredient. Fats in general are useful in cooking because they "smooth and moisten the textures of many foods" and lubricate the food in the cooking pan (McGee 1984:598). Butter served all of these functions in De Verstandige Kock recipes. Several of the recipes called for beef suet or veal fat, and a few used olive oil, but butter was virtually ubiquitous in this cookbook. On the rare occasions when olive oil was called for as an ingredient, the recipe name sometimes included "in the Spanish manner", as in Om Savoy-kool naer de Spaensche manier te preparen, but this was not always the case. For instance, the "Spanish hutspot" used butter, mutton or veal, parsley, lemon and egg yolks. As this recipe illustrates, alternative ingredients, especially meats or vegetables, could be substituted for each other in the same recipe.

Eggs were also common ingredients, either whole or just the yolks; they are another good thickening agent. Eggs yolks were usually added to a sauce or stew at the end of cooking to bind the ingredients. Whole eggs were important components of cakes, doughnuts, and other baked goods.

The most common seasonings were salt, vinegar, pepper, ginger, nutmeg, mace, cinnamon, and cloves. Spices were often used together, especially nutmeg and mace. The frequent appearance of exotic spices in recipes was evidence of the extent of the Dutch East Indian trade. Vinegar was used to flavor meat, fish, and vegetable recipes, but the spices were used with all sorts of foods from meats to

cakes. The recipe for chicken with rice (Om en Hoen met Rijs te stoven), for example, used mace, pepper, lemon, and butter to flavor the poultry and rice. Hen and pigeon with bacon (Om Hoenderen en Duyfkens met Speck te stoven) called for seasonings of ginger, clove powder, pepper, and Rhine wine or vinegar. Ginger, nutmeg, mace, sugar, Rhine wine, and vinegar were used as sauce in the hutspot made with sturgeon (Om een Hutspot van Steur te maken).

Like other early cookbooks, De Verstandige Kock did not instruct its users in basic cooking techniques nor did it often give detailed directions about how to assemble a dish, but it did contain some information about cooking methods and artifacts used in food preparation. This information was seldom direct, however, and often must be inferred from the directions given. For example, the recipe for vegetable mashers (Om Warmoes te koken) can be summarized as follows:

Take clean well-water, put in one or two pieces of white bread. Put it to cook hanging over the fire. Add chervil, mace, beets, spinach, cabbage and various other vegetables, cook it until it becomes done, then add salt and butter.

Since this dish was cooked over the fire, the vessel used was probably a metal pot, either iron or copper, because earthenware pots lacked handles for suspension (see Chapter 6). Slow boiling or simmering, as in this recipe, was the most common cooking method for meats and vegetables, as indicated by the verb te stoven (translated as "to stew"). Slow boiling could be done both in a metal pot hanging over the fire or in an earthenware grape (see Chapter 6 and the glossary for definition of this form), placed before the fire or on a trivet over the fire. The recipes generally simply said "pot" but occasionally were more specific, although not necessarily more informative. The recipes for both pea pods and summer turnips, for instance, said "take a flat pot in which is a little water." "Flat pots" could have been made of earthenware since flat small steelpannen

(see Chapter 6 and the glossary) are known from the time period, but they could also have been long-handled metal skillets as illustrated in contemporary genre paintings (see Chapter 4). Both would generally have been used on a trivet over the fire.

"Pans" were also called for. The recipe for smoked meat with scrambled eggs (Om geroockt Vleesch met Eyeren te roeren) said to cut meat in as small pieces as possible, put it in a pan with butter, heat it, and add eggs and pepper. This "pan" could also have been a steelpannen or metal skillet. It is not clear what the difference was between a "flat pot" and a "pan", although, if there was an actual separation of forms, the former was likely to be deeper since the vegetables were cooked in water. Some of the meat recipes mentioned a "stoof-panne" (stew pan) but there were no indications of its appearance or if it was used over and/or before the fire.

It is possible that the authors of De Verstandige Kock assumed that the majority of cooking would be done in metal pots, for "aerde pots" (earthen pots) were specified in one meat and several fruit recipes. The recipe Om Olypodriogo te maken die goet is said to take a hen, a piece of mutton, a piece of pork and some veal, and put them in an earthen pot with water. The pot was then set op the fire. Op can be translated as "on, upon, at or in" according to the dictionary (Jockin-la Bastide and Van Kooten 1980:392), so it is unclear if the earthen pot went before or over the fire, but the use of the verb "to set" might imply before the fire. After the meats had cooked for awhile, a variety of other ingredients were added (among which were a pigeon, chopped veal, sausage, endive, cauliflower, mace and pepper) and the mixture was again set op the fire. One thing is clear from this recipe -- the earthen pot must have been quite large to accommodate all of these ingredients. Earthen pots were also required in two recipes for apple

pies. In both, the apples, liquids, and seasonings were put into an earthen pot but the method of cooking than differs. In the first, the pot was baked in an oven; in the second the pot was again set op the fire.

The recipe for cooking young domestic birds (Om Jonge Hoenderen, Kalkoenen of Endtvogels aerdigh te koken) specified to boil the birds in water but required a steenen pan to cook the giblets with butter and parsley as a sauce. A steenen pan is literally a stone pan, but pans were not made of stoneware (see Chapter 6). Steen can also mean brick, so it is possible that this was a redware pan. It is also possible that steen pan was confused with steelpan (sauce pan).

Some specific artifacts were used to measure ingredients. Spoons, pewter spoons, and wooden spoons were all mentioned along with Roemer glasses and beer glasses. Kommetjes (literally small bowls, almost certainly made of earthenware) and pewter kommetjes were mentioned infrequently; they were probably the vessels that archaeologists call bakjes or papkommen (see Chapter 6). In general, amounts of ingredients called for were precise and not at all ambiguous.

As noted above, it was common practice for city and town households to purchase an ox and/or pig carcass during the autumn and preserve the meat for winter and spring meals. The section of the work that was concerned with the preservation of meat, De Hollandtse Slacht-tijdt, gave directions for salting and smoking beef and pork (Appendix A). It did not, however, specify how the meat should be butchered or cut into portions. It included recipes for making pork and beef sausages, head cheese, tripe, and for cooking feet. The directions for salting and smoking were simple and both the methods and equipment needed were well within the capacity of the average householder. Salted meat was prepared in a wooden tub; if it was to be smoked after

salting, it was simply hung in the chimney for several months. Meat could either be salted dry, by packing in coarse salt, or wet, by immersion in heavy brine.

De Verstandige Confituur-maker, the section concerned with sweets, was also primarily concerned with the preservation of foods. Fruits were candied, made into jams and syrups, or dried to keep them available during the year. Sugar was, of course, an essential ingredient in these recipes. Sugar in the Netherlands at this time was relatively inexpensive and common (Schama 1987:165). Large amounts of sugar reached the Netherlands from Dutch colonies in Brazil and the Caribbean, chiefly through the port of Amsterdam. By 1640, there were more than fifty sugar refineries in Amsterdam. Sugar was used to preserve fruits and to flavor tarts, cakes, pancakes, etc... In fact, refined sugar was so plentiful that the Dutch, according to dental historians cited by Schama, were the first nation to experience the dental calamities brought on by over-consumption of sugar (Schama 1987:166).

De Verstandige Kock is valuable for the information it contains about the types of foods eaten. It is also informative about cooking methods and the artifacts used in food preparation. The foods, artifacts, and cooking methods in De Verstandige Kock will be compared to those in seventeenth century genre paintings in the next chapter. The next work discussed here, De Borgerlyke Tafel, has information about common foods and their perceived healthfulness.

DE BORGERLYKE TAFEL

De Borgerlyke Tafel, om Lang Sonder Zickten Gesond te Leven

(The Burgers Table, How to Live in Health without Sickness) by Simon Blankaart, published in 1683, is one of the best-known examples of seventeenth century health treatises.

Blankaart was an Amsterdam physician who dedicated his book to the Gentlemen and Burgers of the city as a New Year's gift for their health. His book was intended as an education about which foods were healthy or unhealthy, rather than as a food preparation manual. Nevertheless, all the common foods of the time were included in his discourse.

Blankaart gave bread the place of eminence in his discussion¹⁸. He listed the different sorts of breads that were common: wheat, rye, barley, oat, spelt (a lesser variety of wheat), rice, and millet. His rules for healthy bread can be summarized as follows (Blankaart 1967[1683]:4-8):

1. Well-raised breads are better than unraised breads. The major components of bread are thus better bound together and it is lighter for the stomach to absorb it. Otherwise it lies heavy in the stomach.
2. Finely ground flour is better than coarse ground.
3. Bread with a hard or burnt crust is not good to eat because it passes into the stomach with difficulty and will stop up the stomach.
4. Stale bread is very harmful because it stops up the stomach. It is hard and rough and cannot go through the smallest pipes in the body.
5. Musty, soaked, worm-eaten grains cannot be used to make good bread.
6. Fresh bread is better than old bread, but it is better to eat cold bread than warm bread.
7. Some breads, especially wheat breads, are healthier than other sorts of bread.
8. If people would make their own bread, it would be better

¹⁸ "Dewyl het Brood met regt een Koninklijk voedsel is, sullen wy het d'eer geven om van het in d'eerste rang te plaatsen" (Blankaart 1967[1683]:4) Freely translated as "Since bread by right is a regal foodstuff, we place it in the first ranks."

than baker's bread, because the bakers will often take shortcuts in preparation.

Blankaart held that wheat bread was the best kind of bread, because it was lighter to digest than rye, but he said that those who were always hungry or who had large appetites should eat rye. He also advised rye bread for working people, but not for students, who didn't exercise their bodies very much. Wheat bread ("tarwen-brood") with fine bran was better than white bread ("witte-brood") with little bran. Too much white bread would cause cloggages in people's systems and children who ate white bread consistently had a deathly pallor. In general, those who ate a lot of white bread had hard stomachs and worms, according to Blankaart (1967[1683]:9). He recommended mixed grain bread made out of half wheat and half rye (in effect, modern rye bread), for all people; it was not as dry as wheat but not as hard and rough as rye. He also advocated rusks, especially as a substitute for white bread in bread sopped in sweet milk. Barley bread, if the grains were first cooked in milk, was esteemed as not a bad food, but one with little nourishment. Bread baked from buckwheat was very heavy in the stomach, although it was better if baked with currants. Waffles, when made with yeast, were healthier than pancakes, but neither should be eaten immoderately:

"... all baked goods, such as waffles, pancakes, sisters, brothers, poffertjes, timpjes, whitebread, English cakes, pudding, and things of these sorts, are noted for causing cloggings and blockings" (Blankaart 1967[1683]:10).

Blankaart discussed porridges along with breads, although he was not very enthusiastic about this type of food (Blankaart 1967[1683]:(9-13)). He advised against the over-consumption of porridges made of meal, (as opposed to those made of cracked grains), because, again, they were believed to cause cloggings and stoppages in the body. Rye

porridge, he said, was not bad for working people, but it could make other people sick. Barley porridge, if cooked in sweet milk rather than buttermilk, was not unhealthy; similarly, oats, if made into groats and cooked with other foods, were not unhealthy but should not be eaten often. Buckwheat porridge was not bad if eaten moderately, but buckwheat in general was not as healthy as wheat or rye.

The physician was much more enthusiastic about beans and peas (Blankaart 1967[1683]:13-16). Types of beans included Turkish beans, Roman beans, and horse beans. Peas were divided into gray, green, and white varieties. Turkish [green] beans were very healthy (a rare accolade from Blankaart) prepared with savory, parsley, and pepper. The others, both varieties of fava beans (see Chapter 5), were best dried and cooked with butter and pepper or parsley. Bean porridges made with cooked beans and meat broth were also very good. However, any beans prepared with vinegar were very unhealthy.

Throughout his discussion of vegetables, Blankaart maintained an aversion to vinegar quite in opposition to the common use of vinegar at that time (Blankaart 1967[1683]:16-21). At a later point, he asserted that if people knew how harmful vinegar, lemon juice, and other sour things were, they would ban such things from their towns and lands (Blankaart 1967[1683]:57). Salad greens, he stated, were often on the table in Holland, but were spoiled and rendered harmful if dressed with vinegar.

The green vegetables remarked upon by Blankaart were various cabbages, spinach (which he especially esteemed), endive, celery, beet greens, and various pot herbs (among others, tarragon, chervil, and parsley). Root vegetables included rape, carrots, beets, radishes, Jerusalem artichokes, parsnips, and onions, leeks, and shallots (Blankaart 1967[1683]:21-24).

"Fruits" were divided into earth-fruits, shrub-fruits,

tree-fruits with hard peels, and tree-fruits with soft peels (Blankaart 1967[1683]:24-39). Earth-fruits, which he did not hold in high regard, were pumpkins, cucumbers, melons, and strawberries. Shrub-fruits were red and black currants, gooseberries, blueberries, barberries, and raspberries. Tree-fruits with hard peels were nuts; namely, walnuts, hazelnuts, acorns, chestnuts, pistachios, and almonds.

Of the tree-fruits with soft peels, apples were the most highly ranked, followed by pears, than oranges, cloister apples, citrons, lemons, pomegranates, apricots, peaches, quince, medlars, plums, figs, cherries, and grapes. As might have been expected, Blankaart valued the sweet varieties of apples more than the sour ones; sweet apples could be eaten raw, but others should be cooked. Fruit of all sorts was better eaten ripe rather than unripe. In general, Blankaart accorded only faint praise to fruit.

As for sugar, Blankaart stated that the whiter the sugar the healthier it was (Blankaart 1967[1683]:40). The same was judged to be true for honey. Although tolerable in moderation, sugar, honey, and various syrups were, overall, reported to be very harmful to health.

In a separate section (Blankaart 1967[1683]:43-49) listed foods used for side dishes and desserts. These were raisins, currants, prunes, figs, dates, olives, pistachios, almonds, capers, gherkins, acia (said to be an Indian dish made out of bamboo), Spanish pepper (undescribed), caviar, anchovies, Bolognese sauce (ingredients unspecified), and mustard.

Spices from the Orient as well as those native to Europe were used: pepper, cinnamon, nutmeg, mace, cloves, ginger, saffron, garlic, leeks, mustard, laurel, rosemary, sage, thyme, anise, coriander, and caraway (Blankaart 1967[1683]:49-52).

It was not until he had discoursed on all the other types of foods that Blankaart came to butter, oil, cheese,

and milk; all were considered to be good foods. Butter, especially, was given the highest praise, "... butter is one of the greatest blessings that God has given our land"¹⁹ (Blankaart 1967[1683]:52). The best butter came from Holland, especially that made around Leiden, but all kinds of butter, according to Blankaart, were good. Olive oil, like butter, came in different grades; the best was white without a smell, oil with a smell was best used in lamps or for shining shoes. As for cheese, old (i.e., aged) cheese was best, green (probably yellowish rather than actually green) cheese was better than white, cheese made from cream better than cheese made from buttermilk, cow's milk cheese better than sheep's milk cheese.

"If there is any good food, it is milk, either from cows or other animals; also it is the best food for children and sick or ill people"²⁰ (Blankaart 1967[1683]:54). This statement summed up the physician's opinion of milk. In milk, people had butter, cheese, and whey, so could both eat and drink. Buttermilk (the low fat liquid left over after butter is churned) was healthy if not too soured, especially if it was allowed to thicken. Curdled milk, however, was unhealthy. Cream, eaten moderately, was not bad, but sour cream was unhealthy. Cream cheese was not very good for the digestion. Custard made with eggs was an agreeable and healthy food.

As for meats, in Blankaart's opinion, fresh meat was better than salt meat, young flesh was better than old, and the quality of meat was judged by its taste -- the lighter and more tender the taste, the better the meat (Blankaart

¹⁹ "een van de grooste segens die God in ons land gegeven heest"

²⁰ "Indien'er een goed voedsel is, is het de melk, soo van koyen als andere gedierten; ook is het de beste spyse die men voor de kinderen, self sieken en kranken kan hebben."

1967[1683]:60). The familiar domestic animals (oxen, cows, and calves, sheep and lambs, and pigs) were listed by Blankaart. Many kinds of birds, both domestic and wild, were mentioned as food: young chickens, old hens, capons, roosters, swans, geese, ducks, partridges, doves, snipes, water hens, larks, thrushes, finches, peacocks and "similar wild birds" (Blankaart 1967[1683]:70).

Blankaart declared that all meats in general were better than fish; fish were too slimy and oily for good digestion (Blankaart 1967[1683]:71). If fish was to be eaten, he considered that it was best consumed at the midday meal, rather than in the morning or evening. Surprisingly, given other authors' emphasis on herring, he named cod as the most common type of fish. However, he did say that pickled herring was good for working people. Other types of herring that he listed were bloaters, red herrings, deep water herrings, and sprats. Additional types of sea fish named were several varieties of eels, ray, flounder, sole, dab, and salmon. He was of the opinion that river fish were more healthy to eat than sea fish, because they were not so oily (Blankaart 1967[1683]:73). River fish included perch, bass, pike, roach, bream, carp, and white bream. The pleasing taste of shellfish, (oysters, mussels, winkles, crabs, lobsters, and shrimp) was mentioned; Blankaart said it was better to eat them cooked than raw (Blankaart 1967[1683]:74-75).

De Borgerlyke Tafel was designed by Blankaart as a polemic about healthy food, and, in his zeal for health, the physician seems to have partly gone against the tastes of his countrymen. He disapproved of the use of vinegar, he did not esteem herring, and he was most enthusiastic about spinach. Nonetheless, his work did place the most emphasis upon bread and dairy products as important foods. His descriptions of the types of grains, meats, fruits and vegetables that were common agrees with the other sources

cited. The work is informative not only about the types of foods that were eaten but also about attitudes concerning food. Above all, Blankaart emphasized temperance in the consumption of all foods; the harmful effects of unhealthy foods could be alleviated by consuming them in moderation and, no matter how healthy the food, it should be not be overeaten.

THE IDEAL OF MODERATION

Blankaart was not alone in the importance he placed on moderation. Simon Schama in his account of Dutch culture during the Golden Age, The Embarrassment of Riches, has examined their attitudes about food as expressed in writings and genre paintings (Schama 1987:129-220). For Schama, the key to Dutch culture (the Dutch mentalite) is their perception of themselves as fighters in the dual struggle against the encroaching sea and the Spanish imperialist papists. The seventeenth century Dutch were influenced by Erasmian humanistic traditions of moderation as well as by the Reformed Church's Calvinism. Therefore it was "embarrassing" to be rich, to have more than a sufficiency, because it created a situation of unnatural imbalance that might cause God to remedy the imbalance in a violent manner with war, flood, or pestilence (Schama 1987:127-372). As fighters against the Sea and the Spanish, the people most certainly needed to keep God on their side. Moderation was not only pleasing to God, it was thrifty, but parsimony as well as extravagance was to be avoided. The ideal family meal was described as the following:

The table daily all prepared
With overflow of wholesome fare
Wherever harmony is seated
Along with peace and tranquility, from there
Is banished hunger and appetite (Jan Luiken in Schama 1987:159).

The Dutch moralists did not advocate abstinence; their land

was a land of plenty whose riches were to be enjoyed but not to the point of sodden intoxication with either food or drink.

The moralists' emphasis on moderation was at least in part a reaction to the fact that their countrymen did sometimes indulge in sodden intoxication: public feast and private celebrations were marked by consumption of large amounts of food and drink (Schama 1987:178ff).

INTRODUCTION OF NEW FOODS - TEA, COFFEE, AND POTATOES

Tea, coffee, and chocolate were introduced to Europe during the sixteenth century, but none became very popular until the end of the seventeenth. Blankaart, writing in 1683, said that tea was becoming very popular (Blankaart 1967[1683]:84); but, even though the price had decreased substantially since the beginning of the century, tea was still too expensive for most people (Schama 1987:172). Coffee apparently was not generally accepted until the eighteenth century. Blankaart said that it was healthy, but he felt obliged to describe its unfamiliar taste ("like roasted beans"); he added that it was used more in England than in Holland (Blankaart 1967[1683]:86-87). Chocolate was described as an agreeable, healthy drink, especially for workers (Blankaart 1967[1683]:87), but it was apparently not yet as common as tea or coffee.

The acceptance of both tea and coffee into Dutch foodways involved changes not only in taste but also in artifacts. Tea was customarily drunk from small oriental porcelain cups (see Chapter 6). Coffee also came to be drunk from the same types of cups. Thus it should be possible to mark the acceptance of tea and coffee in the archaeological record by the appearance of increased numbers of porcelain cups (porcelain had been brought into the Netherlands as a precious commodity since the beginning of

the century) and, after mid-century, Dutch faience²¹ cups modeled on oriental examples.

The potato is today one of the basic foods of the Dutch diet and is considered by many to be the quintessential "traditional" food. However, it did not come into wide use until the eighteenth century. The first mention of potatoes in Amsterdam market records was in 1712, when they were classed with turnips and rapes (Van Nierop 1983:16). Potatoes did not become a staple of European foodways until shortages of wheat and increasing population densities made alternate foods necessary.

SUMMARY

The staples of the Dutch diet were bread, butter, cheese, grain porridges, fish, legumes, meat, vegetables, and fruits. Common beverages were beer, milk, buttermilk, and whey. There were definitely differences in foods eaten by people of different socio-economic groups. The poor ate more legumes and root vegetables; the rich ate more meat -- especially fresh meat and wild birds -- and fruit. The large middle class, a diverse group who made up the majority of the citizens, ate a diet that had more variety than that of the poor but had fewer costly foods than that of the rich. There were, however, foods that were common to all people: bread, butter, cheese, beer, buttermilk and fish.

Quantities of food consumed are more difficult to determine, but Van Nierop's calculations indicate that, for Amsterdam at least, there was generally no shortage of foodstuffs. There were indications in contemporary accounts that most Dutchmen, compared to other Europeans, had more than a sufficiency of food (Schama 1987:151-177). Food in

²¹. "Faience" and "maiolica" are the terms that will be used for tin-glazed earthenwares. These wares are often and misleadingly called "delftware" (see Chapter 6 for definitions of these ware types).

general emphasized "quantity rather than finesse," but there were also cultural restraints on the amounts of food that should be consumed (Schama 1987:151).

The ideal of moderation in food was also expressed in art through genre paintings. Food was a popular subject in seventeenth century Netherlandish paintings and the next chapter will examine Dutch genre paintings in order to extract information about foodways from the types of foods, artifacts, and activities portrayed. This data will then be combined with the documentary material from this chapter to reconstruct Dutch seventeenth century foodways.

CHAPTER 4 : DUTCH GENRE PAINTINGS AS SOURCES FOR RECONSTRUCTING FOODWAYS

INTRODUCTION

Municipal documents, shipping records, menus from public charitable institutions, and contemporary cookbooks and health manuals provide information about food. Archaeologists and others working with Dutch and Dutch colonial sites, however, have an additional visual source of information -- genre paintings -- that can be used in conjunction with documents and artifacts to reconstruct foodways.

Seventeenth century Dutch genre paintings depict everyday life and domestic activities in more detail than, possibly, any art since Egyptian tomb paintings. There has been much argument, however, concerning the extent of realism and typicality in the paintings and whether or not the scenes they depict are photographically accurate or instead are principally illustrations of moral precepts or cultural ideals. Art historians who view Dutch genre paintings as vehicles for moralistic exhortations emphasize the similarities of themes and images between the paintings and the engravings used to illustrate popular seventeenth century emblem books, especially those by Jacob Cats (Alpers 1983:217-218,229-223; Sutton 1984:xx). Emblem books combined illustrations of everyday activities and objects with captions and mottoes to teach a moral (Sutton 1984:xxii; Schama 1987:162, 379, 385). Svetlana Alpers, however, takes the position that Dutch art, in contrast to that of Italy, is descriptive rather than narrative, and "the relationship of this art to the world is like that of the eye itself" (Alpers 1983:xix). Seventeenth century Dutch artists, according to Alpers, shared with Dutch scientists a concern for describing the nature of reality in the world. She draws on the writings of Constantijn

Huygens, a seventeenth century man of letters, politician, humanist, and scientist, to link the "new world" of the contemporary artist with the new science of Bacon and like-minded Dutch experimenters (Alpers 1983:22-25). Through the careful use of their eyes and of scientific instruments (the microscope and the camera obscura) designed to augment the powers of the eye, artists sought to observe and faithfully record reality. The goal of this "attentive looking transcribed by the hand" was to give "basic access to knowledge and understanding of the world" (Alpers 1983:72). This view is supported by other art historians: for example, Sutton (1984:xix) claims that in "an age when Dutch cartographers mapped the globe and Dutch scientists led inquiry into so many fields, the painter shared the respect and enjoyment of the well-observed fact."

The painters, of course, differed from the cartographers in that they arranged and posed their own subjects; they did not take reality as they found it. They dressed models and placed them in settings complete with props both animate and inanimate. The diverse visual dialogues and dramatic situations they created used the same models, props, and settings repeatedly. Gerald Ter Borch, for example, posed his sisters as women of fashion, prostitutes, or virtuous mothers and, moreover, posed them against a mantel whose architectural details he simply varied from painting to painting²². The same white faience jug appears in at least three of Jan Vermeer's paintings²³. And Jan Steen painted a particular shape of metal jug so often that Dutch art historians and archaeologists call it a

²² "Woman Drinking Wine With A Sleeping Soldier" early 1660s; "Curiosity" ca. 1660; "Lady At Her Toilet" ca. 1660; and "Soldier Offering A Young Woman Coins" ca. 1662-3.

²³ "Girl With Wineglass" ca. 1658-61; "Woman and Two Men" ca. 1662; and "Lady At The Virginals With A Gentleman" ca. 1662-1665.

"Jan Steen kan".

Since the paintings are thus contrived, it might be argued that they do not accurately reveal what people in the Netherlands in the seventeenth century ate, and how they used artifacts to prepare, serve, store, and consume food. I will argue that they are valuable sources for the study of foodways that provide information concerning artifacts, types of food eaten, and attitudes about food. They can be used to reconstruct seventeenth century Dutch foodways not in spite of but because the foods and artifacts were props. As props, they were placed by the artists in realistic situations, and no matter whether the intent of the artist lay in describing the surface of observed reality or in symbolic referents peculiar to his culture, the artist has depicted food and the people and artifacts involved with food in a natural -- i.e., culturally approved, recognizable, standard, true to life -- manner. Even though it is a self-conscious, not unconscious reality, it is natural, in my opinion: the props were used in a normal manner, and, even if they had allegorical or hidden meanings, jugs were actually used to hold wine, dishes were stored over the hearth, and bread and cheese were commonly eaten. Glasses on their sides might fulfill the Baconian admonition to investigators to "vex" objects to reveal their nature (Alpers 1983:103), and pictures of open pies might imitate the microscope by revealing the interior mysteries of things (Alpers 1983:90 ff.), but they also reveal what people ate and what they ate it in.

The artifacts and foods portrayed are appropriate to the posed situations and would not disrupt the realism of the paintings. Dutch artists in the seventeenth century were concerned with realistic depictions even if they wished to convey a moral. As Simon Schama (1987:413) states, "the very success of moralizing in paintings depended on the skill with which the artist could record quotidian reality."

The assumption upon which the following discussion of seventeenth century Dutch foodways is based is that the paintings are a valuable anthropological resource containing visual information about artifacts in use in a behavioral context.

THE ECONOMIC AND SOCIAL CONTEXTS OF ART IN THE NETHERLANDS

The artists' choices of subjects for their genre paintings were influenced by craft traditions and training as well as by the demands of the art market in the Netherlands. Painters in the Netherlands were part of the Guild of Saint Luke, which included faience potters, silversmiths, and other skilled craftsmen (Alpers 1983:112). For the most part, they came from families engaged in crafts like glassmaking or weaving or trades like brewing or grain handling (Alpers 1983:112-115; Sutton 1984: passim), and only a few, like Christian Huygens, son of Constantijn, and Gerald Ter Borch, were members of the ruling regent class (Alpers 1983:2; Sutton 1984:xliv). Painters were regulated and controlled by their guild, as were other craftsmen, and most were trained in their home towns by master painters. The guild structure was hierarchical; painters' status within the organization depended upon their wealth, both inherited and earned, and their election to guild offices (Alpers 1983:102). In contrast to many European artists of this period, Dutch painters did not concentrate on dramatic historical or biblical scenes, but chose to paint the landscapes and waterscapes of their country along with their most famous and characteristic works, genre paintings -- scenes of everyday life.

Genre paintings grew out of the late medieval Northern European artistic tradition. Some subjects, such as images of women spinning or sewing and open air feasting scenes, remained popular throughout the sixteenth and seventeenth centuries (Stone-Ferrier, quoted in Barnes 1988:14).

However, new themes that appealed to the contemporary domestic art market were developed during the seventeenth century. Scenes of family celebrations, musical gatherings, amorous conversations, and other daily activities appealed to the large Dutch middle class who purchased large numbers of these paintings.

Painters tended to specialize in particular subjects (landscapes with domestic animals or church interiors, for example), and their choices of what to paint were often related to their life histories and to the subjects and styles of their teachers. Jan Steen (1625/26-1679) is perhaps the most obvious example: a brewer's son and sometime tavern keeper with a large family, he is best known for his scenes of communal merrymaking and family meals. Steen often included himself in his paintings, especially in the role of the jester, and children were common participants in the actions portrayed. Judith Leyster (1609-1660), one of the few known women artists, was a pupil of Frans Hals and painted in his style. Her paintings also included children; not idealized cherubs or silent appendages to parents but mischievous, independent actors. While they were both living in Haarlem, Adriaen van Ostade (1610-1685) was influenced by the Flemish painter Adriaen Brouwer, a specialist in peasant scenes. Van Ostade's first works depicted quarreling peasants in dingy homes and taverns, but, during the middle decades of the century, his peasants became better dressed and better behaved (Sutton 1984:284). After 1660, his subjects remained lower class people and activities, but the settings became more "comfortable" and domestic harmony rather than poverty was a central theme (Sutton 1984:286). Art historians have interpreted both developments as evidence of Van Ostade's individual artistic growth as well as of "the relative prosperity of the Dutch peasant" (Sutton 1984:289). Whether or not his more genteel depictions of peasants was indeed a

product of artistic growth, Van Ostade, Steen, and the other artists painted scenes with which they were familiar from their daily experiences.

The state of the market for paintings was another factor that was necessarily of concern to the artists when choosing their subjects. Paintings were a commodity that responded to the demands of the market, but most artists did not command high prices. A few, like Rembrandt (who did not produce genre paintings), Gerald Dou, and Frans van Mieris, received large sums for their paintings (by the standards of the times), but most artists were only modestly recompensed (Sutton 1984:xvi-xvii; Stone-Ferrier 1985:32). Relative prices of subject categories can be determined from values assigned to paintings in seventeenth century probate inventories evaluated by professional assessors. Certain subjects commanded relatively higher prices: historical scenes generally had the highest evaluations; followed by "high life" subjects (scenes of prosperous interiors) and landscapes; with "low-life" (peasant subjects) and guardroom scenes as the least valued (Sutton 1984:xvi). The quality of the frame, especially if gilded, often determined the inventory evaluation (Schama 1987:620). The sale of paintings was supervised by the Guild, but the manner and place of sales could vary. Paintings could be sold directly by the artists, by middlemen (dealers or vendors) in shops or at markets or fairs, or could be commissioned (Alpers 1983:xxii; Sutton 1984:xvi; Stone-Ferrier 1985:78-79, 154-155; Barnes 1991:61). Occasionally, a patron or investor would pay an artist a salary or retaining fee or provide food and shelter in return for a portion of the artist's work (Sutton 1980:9).

Paintings had a place in the everyday lives of many Netherlanders. They were ubiquitous in homes throughout the Netherlands, as their presence in household inventories attests (Sutton 1984:lxii, xvi; Stone-Ferrier 1985:78).

Foreign travelers were often astounded by the number of paintings for sale in shops and at fairs (Schama 1987:318). For example, Peter Mundy, an Englishman, observed in 1640:

As for the art off Painting and the affection of the people to Pictures, I thincke none other goe beyond them, there having bin in this country many excellent men in that Faculity, some att present as Rimbrantt,etcs. All in general striving to adorne their houses, especially the outer or street roome, with costly peeeces. Butchers and Bakers not much inferior in their shoppes which are Fairely sett forth, yea many tymes, Blacksmiths, Coblers etc. will have some picture or other by their Forge and in their stalle. Such is the general Notion enclination and delight that these country Natives have to paintings. (quoted in Bugler 1979:7)

Genre paintings functioned within seventeenth-century Dutch society as household decorations and as investments. With the exception of historical and biblical scenes, which are not included in this study, the subjects were everyday situations familiar to the contemporary audience. The paintings were works of art designed for a contemporary audience that appreciated not only their visual beauty but also their descriptive detail. Their realistic depiction of commonplace material culture can be as informative for archaeologists as, for instance, early twentieth century photographs of now-abandoned mining towns.

FOODWAYS AS PORTRAYED IN PAINTINGS

For the purposes of this study of seventeenth century foodways and food associated artifacts, the Dutch genre paintings are here grouped according to their subject matter; the paintings discussed below are samples of the following categories: Markets and Shops, Communal Meals, Domestic Scenes, Tavern Scenes, Food Preparation, and Still Lives. They exemplify the information contained in each group. The paintings provide information about the types of foods available, food preparation methods, and artifacts used for preparation, service, and consumption. Appendix B

lists all paintings examined for this study by group.

MARKETS AND SHOPS

Market scenes had been painted by medieval and early Northern European painters, but they did not become common in genre paintings until after the mid-seventeenth century when they were often used as the foreground for cityscapes (Sutton 1984:305). Markets were also occasionally used as the setting for portraits, as in Emanuel de Witte's "Portrait of Adriana van Heusden and Her Daughter at the Fishmarket in Amsterdam", ca. 1660. Hendrick Sorgh of Rotterdam, whose father was a market bargeman and who himself was a market barge skipper, was one of the most prolific painters of market scenes (Sutton 1984:305-6). Vegetable market scenes by Sorgh, Steen, and Metsu show vendors, always women, sitting in the open air with baskets full of a great variety of produce. Sorgh's "Vegetable Market" of 1662, for example, shows a woman selling and surrounded by melons, squashes, turnips, cabbages, carrots, grapes, and, probably, apples, pears and peaches. A second woman holds a basket filled with artichokes and, in the background, more produce is unloaded from boats that had come into the vegetable market on the canals. The wheelbarrow in this and other vegetable market scenes was the vehicle used to carry produce directly to houses for sale, as pictured in a 1668 Amsterdam street scene by Michiel van Musscher.

Fish market paintings are likewise open air scenes. Fish sellers in genre paintings are also generally women; however, unlike the vegetable market scenes, a man appears as a vendor in at least one picture, an undated pen and ink with colored washes by Toorenvliet (1640-1692). Men appear as customers in market scenes but women are more common, and interactions between buyers and sellers are often the focus of the paintings. Unlike vegetable sellers who are shown without shelters, fish sellers usually stand under awnings

or within booths arranged in formal rows in the fishmarkets of towns and cities. The 1672 "Fishwife" by Adriaen van Ostade shows such a booth in the Haarlem fishmarket. The painting includes a crab, a half dozen sole or flounder, four medium-sized unidentifiable fish, and a large piece of salmon. All of the fish are whole, except for the salmon, which has the head removed (the tail section is not visible), but the fish seller holds a knife in one hand and a fish in the other as if she is prepared to fillet it for the customer. The fish seller in de Witte's 1672 "The Fishmarket" holds a cleaver poised over quite a variety of salt water fishes: haddock, sole, plaice, lobster, rays, turbot, cod, and sturgeon (Van Nierop 1983:22). All are whole except for one large unidentifiable fish that has been beheaded and gutted as in the Van Ostade painting. Large fish were probably sliced into steaks as required by customers. Thus fresh fish could be purchased whole, as fillets, or as steaks, depending upon the species and size of individual fish. The portion selected would of course affect what fish bones would enter the archeological record in domestic and market deposits.

No paintings of meat sellers have been identified for this study, but several large drawings of indoor meat markets (vleeshals or meat halls) have been located. Vleeshals in the cities were substantial structures in contrast to the open booths of the fishmarkets. In the drawing of "De Grote Vleeshal" in Amsterdam, ca. 1690, by Pieter van den Berge, the interior of the hall, formerly a chapel, is lined with stalls from which hang sides, quarters, and legs of, probably, pigs and, possibly, cows and sheep (based on size of the carcasses). The drawing is too sketchy to determine details, but the sellers in the foreground are men. An engraving, one of a series of illustrations of the city of Delft in 1667, was copied as a tile picture that has been illustrated in Neurdenburg and

Rackham (1923:fig. 34). This picture shows two facing rows of stalls under the heading "Zee-Visch Marckt" (sea-fish market) next to a three story stone structure labeled "Vlees-Hal" (flesh hall). The Vlees-Hal is a massive building with ornamental bull's heads over the doors. Another row of stalls is set up against the wall of the Vlees-Hal but they are not labeled. They might have been part of the fish market but the end one appears to be occupied by a woman vegetable seller. The contrast of solid buildings staffed by male meat sellers with the flimsy market booths inhabited by female fish sellers represents a greater capital investment on the part of meat vendors and may indicate a higher status for meat as a food.

Shops as well as markets were portrayed. Dou's undated, but probably ca. 1650-1660, "A Poulterer's Shop", shows a woman holding a rabbit while chickens, domestic ducks, and a peahen lie dead on a window sill. A live chicken is in a wicker cage and, as in most of the market scenes, both buyer and seller are women. This work, the only poultry shop painting located for the present study, is similar in composition to Dou's "Village Grocer" of 1647. Both paintings have the main scene within an encircling arch and the objects in the extreme foreground seem to project into the viewer's space. The "Village Grocer" shows a woman weighing something in a hand-held balance scale; carrots and turnips are on the window sill.

Plate 4.1

"The Baker" by Job Berckheyde, Worcester Art Museum, Worcester, Massachusetts. Pretzels hanging and on shelf, large, probably rye, loaves, smaller wheat loaves. Salt in pestle below pretzels.



The same general arrangement of space within a painting is seen in Job Berckheyde's later "The Baker" (ca. 1681). Paintings of bakers were a fairly common subject, according to art historians (Sutton 1984:139). The paintings show the finished products of the baker's art rather than the processes of baking. The Berckheyde painting (Plate 4.1), for example, is virtually a portrait of the baker (always a man) with his loaves of bread, rolls and pretzels, and his horn, which the baker blew to inform the neighborhood that the bread had come out of the oven. Steen, who seems to have taken pleasure in depicting breads as objects in many of his other paintings, painted a portrait of a Leiden baker and his wife with such a variety of breads that it is possible the baker commissioned the painting as an advertisement of sorts ("The Leiden Baker Arent Oostwaard and his Wife"). The baker and his wife are depicted smiling as they present bread, pretzels, rusks, rolls and a duivekater (see discussion of St. Nicholas's Day below) to the viewer. The large loaf of bread is on a wooden paddle such as bakers still use to remove bread (or pizza) from ovens. Some rolls behind the baker are displayed on an upright series of slats, probably a cooling rack.

COMMUNAL MEALS

The members of the Civic Guard of each city had a propensity for having themselves painted communally in the setting of their periodic banquets. It was an honor to belong to the Civic Guard and recruits came from among the members of the wealthy families of each city (Stearns 1967:106). A series of group portraits from the 1610s and the 1620s, given the titles of "Mealtime [Maaltijd] of the Officers," by Frans Hals, included the foods and artifacts used at their meals along with the officers themselves. The formal arrangement of the participants in the Hals works was designed to indicate the relative rank of each officer

within the company (Schama 1987:181), and it is probable that the foods and artifacts portrayed were also carefully chosen and arranged. The tablewares and foods are very similar in all the paintings: large round pewter serving platters (called "chargers") holding roasted birds, crabs, or oysters occupy a central place on linen-covered tables; smaller pewter plates for individual servings are in front of each man; various shapes of glasses for red and white wines are held in hands or sit on the cloths; wine is poured from pewter jugs with elongated spouts; each man, as far as can be seen, has his own knife for cutting; and a tall pewter salt cellar of simple design is often on the cloth in front of the central figure. Green olives on small pewter plates are sometimes on the table. Bread is not always among the pictured foods, but when it is, it is in the form of small loaves of white bread (large roll sized). Even though the foods portrayed are fairly simple foods -- roasted birds, wine, crab, oysters, salt, olives, and bread -- presented in an unostentatious manner in moderate quantities, they were not inexpensive types of victuals. Nevertheless, they may not be representative of the foods that were actually consumed at the guard's banquets, since there is some evidence that eating and drinking to excess were common at the annual celebrations (Haak 1984:183, Schama 1987:182). The foods chosen for the Hals portraits probably represented banquets tempered by the ideal of moderation. Costly foods simply prepared would have been acceptable fare for these wealthy but unaristocratic men. As for tablewares, it is clear that each man has his own separate pewter plate, a glass, and a knife with which to consume his portion of the meal.

A painting of another group of Civic Guards by a different painter, Bartholomeus van der Helst, has artifacts that are similar to those in the Hals paintings (large serving and small individual pewter plates, a pewter jug

with a spout for wine, and stemmed wine glasses), with some additions: two drinking vessels -- an ornate silver horn and a glass held in a gold bekerschroef (see Still Lifes) -- were apparently, (based upon the postures of the men), passed from hand to hand as part of the communal ceremony of the occasion, which was designed to promote group solidarity as well as commemorate historic events; a large ornate brass wine cooler holding a round flat-sided pewter jug is in the foreground; and a two-pronged fork, the only fork encountered in any painting, is used in conjunction with a knife to cut a portion from a large pasty. White wine is in round-bowled Roemer glasses with wide stems decorated with triangular or "raspberry"-shaped prunts, but red wine is in tall, narrow, trumpet-shaped glasses. (This separation of red and white wine glass shapes was not consistent throughout all of the genre paintings viewed, but it was the case more often than not. White wine was much more common than red in the paintings.)

An example of a communal, non-ceremonial, meal among the less privileged members of society is the undated "The Girls' Dining Hall in the Reformed Parish Orphanage, Amsterdam" by Jan Victors (1619/20-1676). In this painting, probably commissioned by the women regents of the orphanage, gruel from a large copper pot is ladled into pewter basins. The basins' placement in front of the girls suggests that each was shared by three or four orphans. Several of the girls are holding spoons. Slices of dark bread, probably rye, are served on a large pewter plate. Beer is tapped from a barrel and served in pewter jugs to be passed along the long tables. Thus it appears that each girl had her own spoon, but the basins and jugs were shared. Even if the orphanage paintings represent an idealized situation, the differences between the orphans and the guard officers are equally conspicuous in the types of food they were given and in the artifacts available for eating it: the officers ate

costly foods from individual pewter plates and each had his own knife and wine glass; the orphans shared jugs of beer and basins of grain gruel eaten with spoons. The officers ate fine white bread while the girls ate slices of coarse rye bread.

DOMESTIC SCENES

Peasant Interiors

This group includes more paintings than any other. The English titles of this first subgroup of Domestic Scenes almost always include the word "peasant." Titles were usually not given to their paintings by the artists themselves, but instead have been bestowed by art dealers and historians during the course of the ensuing three hundred years. Since this is not the place to discuss the definition of a European peasant (cf. Wolf 1966), I have simply made the decision to accept the art historians' evaluations of the socio-economic status of the subjects of these paintings. This sub-group consists of paintings of house interiors and yards, peopled by farmers, laborers, or poor craftsmen. Many artists included peasant paintings among their works and several, notably Adriaen and Isaack van Ostade and Adriaen Brouwer, specialized in "low-life" subjects (Sutton 1984:xxxv).

Early (1630s) interiors by Adriaen van Ostade and Brouwer show red earthenware and brown stoneware jugs and mugs, wooden mugs, and, infrequently, tall, non-stemmed beer glasses. The main food consumption activity in these paintings consists of drinking, and most do not show any solid food. Brouwer's "Singing Drinkers" however, shows a large cheese, a knife, and a small red earthenware or wooden plate on the table between the drinkers. Van Ostade's "Drinking Figures and Crying Children" includes one child hitting another with a wooden spoon during a fight for possession of a large red earthenware cooking pot. The

contents of the pot are not visible. Other interiors, for example Van Ostades's "A Company of Peasants," include wooden plates and a wooden spouted jug made from slats.

Plate 4.2

"Prayer Before the Meal" by Jan Steen, Sudeley Castle, Winchcombe, Gloucestershire. On the barrel are a knife and a pewter charger holding a ham. On the table are a large loaf of bread sitting atop a large cheese. On the bench, a German stoneware jug with a pewter lid.



Later (post 1650) humble domestic scenes show less raucous or crude behavior and more solid food. Interiors by Van Ostade and by Steen show the same sorts of artifacts as in earlier paintings as well as flat red earthenware colanders, bakjes (small footed bowls, see the glossary and Chapter 6), and large and small grapen (pots with three small feet). Colanders are portrayed as vessels used to wash vegetables or mussels, bakjes are for consumption of stews, gruels, or other semi-liquid food, and grapen, often with spoons inside, are shown as containers for semi-liquid or liquid foods. Some of the families, as in Steen's "Saying Grace" and "Prayer Before the Meal" (Plate 4.2) have one large pewter plate on the table. In most of these paintings the food on the large plate is indistinct, but in the "Prayer Before the Meal" the plate clearly holds a large ham. The only utensils in view in these later paintings are wooden spoons and knives with bone or wood handles. The foods are simple: large loaves of bread, large round cheeses, butter, hams, dried fish, mussels, boiled eggs, and unidentifiable gruels or stews in the bakjes and grapen. People evidently used plates for cutting off pieces of meat, but bread, cheese, and dried fish were placed directly on white cloths that covered the tables. For example, in the "Prayer Before the Meal," a large loaf of bread and a large round cheese sit on the cloth covering the table while the large pewter plate with the ham is nearby on an upturned barrel. There are no indications of individual serving plates in these paintings and the presence of one jug or glass on most tables probably indicates that drinking vessels were shared. However, bakjes or small grapen were apparently not shared. For example, in Van Ostades's "Interior of a Peasant Cottage" a boy is plainly eating by himself from a small bakje, and in Steen's "The Satyr and the Peasant," each person is served with an individual bowl of soup or gruel.

Some farm houses in the seventeenth century were still constructed as combination living quarters and barns. Several such interiors were pictured by Pieter de Bloot. People, chickens, pigs, cats, dogs and sheep share space with wooden barrels and tubs, tall metal (probably iron) cooking pots with feet, large brass cooking pots with handles, large brass milk cans, various earthenwares similar to those already mentioned, cauliflower, cabbages, turnips, onions, apples, fish, and eggs.

Middle Class Interiors

The second sub-group of Domestic Scenes are set in middle class households. The middle class, as noted in Chapter 2, comprised the great majority of the Dutch people, but within this broad group there were wide variations in wealth. In spite of this, the "broad middle class" was more alike than it was different (Schama 1987:174). It will be considered here as one group.

In the paintings, differences between middle and lower class households are evident in both the food and tablewares, although there is a greater difference in the artifacts than in the foods. All of the foods and most of the artifacts seen in the "peasant" pictures continue to be part of meals, but a variety of other foods and artifacts are introduced. Wooden food-related artifacts, with the occasional exception of barrels and tubs, are generally not included in these interiors. Coarse earthenwares are generally limited to grapen, testjes, komfoors and steelpannen (pipkins, small braziers, chafing dishes, and skillets, see Chapter 6 and the glossary).

Plate 4.3

"Merry Family" by Jan Steen, Rijksmuseum, Amsterdam. Grape with spoon on the floor, pewter jug on the floor, egg shells on the floor, faience jug dangling from hand of woman at left, box with testje on floor, pewter plates holding waffles on the table, knife on table, Roemer glass lifted in man's hand, child holding spoon. At rear, woman entering holding up a pasty.



Some of the best sources for middle class interiors are paintings by Jan Steen, especially his many "Dissolute [or Disorderly] Households" and "Merry Family"²⁴ scenes (Plate 4.3). Steen was a master of family group scenes that could include three or four generations (Rosenberg, Slive, and ter Kuile 1966:133-135). These paintings typically show a number of adults and children grouped around a table on which are tablewares, glasses, and food. Food, dishes, jugs, skillets, etc. are often also on the floor in the foreground (the placement of objects on floors in the foreground of his interior scenes was a common device used by Steen). The foods commonly shown in his domestic scenes are cheese, ham, bread, waffles, eggs, oysters, mussels, and pasties. Fruit (grapes, apples, and peaches) appear occasionally. In several "Dissolute Household" scenes, a small dog or cat is shown busily engaged in eating a pasty under the drunken disregard of the mistress of the house; this can be interpreted as an indication that pasties were particularly valued or expensive foods whose waste pointed up the moral of the painting. There is always drinking: wine appears in Roemer glasses; large lidded pewter jugs without spouts hold (based on their appearance in other paintings) beer; the contents of stoneware and faience jugs are not shown, but they were almost certainly wine or beer; pewter spouted jugs with wine are so ubiquitous that, as

²⁴ The names of Steen's paintings are often derived from written words on the paintings themselves. For instance, in at least two paintings he inscribed phrases on a slate shown lying on the floor in the foreground of paintings. He also painted mottoes on mantelpieces and on pieces of paper shown tacked to walls or lying on floors. His "Dissolute Household" pieces were labeled that by Steen himself through this device (Sutton et.al 1984); however, his works that have been given the title of "Merry Family" generally had the proverb "As the Old Sing, So the Young Pipe," which can also be translated "The Young Ones Chirrup as the Old Ones Used to Sing," somewhere in the painting.

noted above, they are called "Jan Steen kans." Several paintings also include beer barrels with taps. Small pewter plates for individual servings are shown along with large pewter serving chargers, metal spoons and knives are common, and long-handled metal skillets are often shown in the foreground. The only redwares that appear consistently in Steen's middle class interiors are grapen (often with spoons inside), and testjes. Wooden tables are covered with white cloths and, in what probably were relatively richer households, colorful oriental rugs are under the cloths.

Two companion paintings by Steen in the Cheltenham Art Gallery, illustrated in Schama (1987:154), "The Fat Kitchen" and "The Thin Kitchen" demonstrate the differences between poverty food and prosperously comfortable (but not exceptionally wealthy) food. In the "Thin" interior, raggedly dressed adults eat mussels with their hands from a single redware dish while children quarrel over the scrapings from a cookpot. Other foods in this interior are a cabbage, carrots, and, possibly, onions. The "Fat" interior shows a group of simply dressed adults gluttonously consuming a ham and a pasty using a knife, a spoon, and their hands. Two children with spoons are eating from a small wooden cask that holds some unidentifiable liquid or semi-liquid (milk or thickened buttermilk?). Birds roast over the fire while other birds, a calf or sheep forequarter, hams, and rabbits hang from the ceiling.

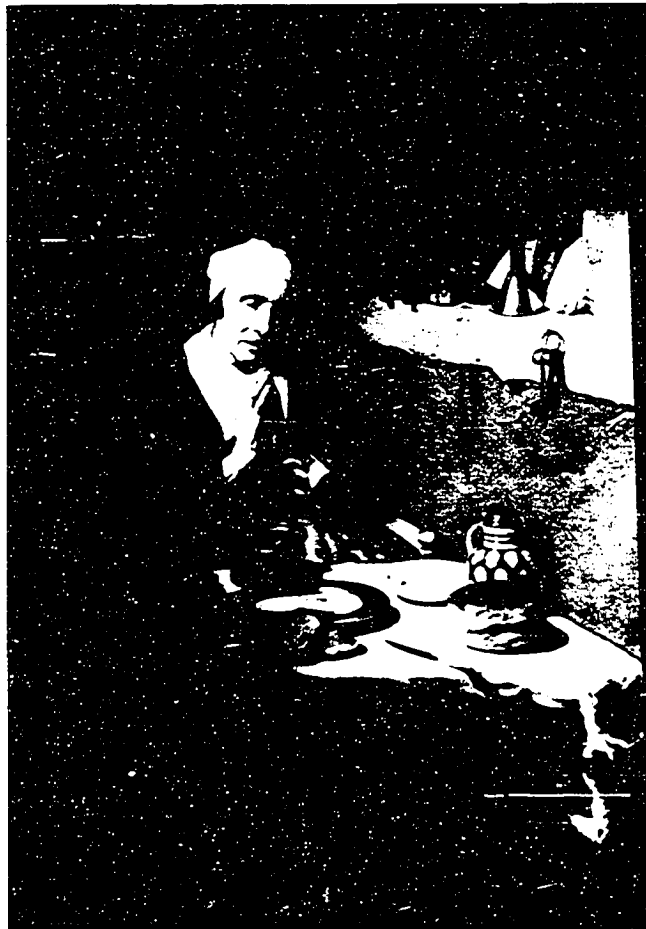
Steen painted another series of family groups titled "The Feast of Saint Nicholas," three of which were examined in detail for the present study. These paintings are crowded with children and adults engrossed in the festivities of this important Dutch holiday. Although they do not portray meals, food, in particular nuts, a variety of cookies, and fancy breads, are part of the festivities. The breads are long, diamond-shaped sweetened and filled loaves called duivekater [lit., devil's cats]; they were baked

especially during December and are thought by Dutch folklorists to have been used as pre-Christian offerings (Nannings, cited in Rose 1989:9). Spicy speculaas (hard gingerbread cookies) were also part of the Saint Nicholas celebration and are easily identified in Steen's scenes. The furnishings in these interiors are the same as in the "Merry Family" series and probably were Steen's own chairs, tables, and chests. Some of these furnishings are in a group scene labeled "The Artist's Family" by Steen²⁵: a table with heavy ball legs, large and small pewter plates, and a large metal frying pan. An ornate brass mortar and pestle is in this painting but is not in any other Steen work examined for this study. The only foods shown in "The Artist's Family" (which is not a mealtime) are grapes, an apple, a lemon or citron, and some sort of bread. Steen's frequent depictions of his family members and their household furnishings suggests that the foods shown were also the painter's everyday possessions, since Steen commonly included his immediate surroundings in his works.

²⁵ The people shown in this painting can be easily identified as the models for many other scenes. Steen, and others, commonly used not only their own possessions but also their own household members in their genre paintings.

Plate 4.4

"Old Woman Praying" by Nicholaes Maes, Rijksmuseum, Amsterdam. On the table are a grape with spoon on a wooden or earthenware small plate (serving as a trivet), white faience dish containing butter, German stoneware jug, knife, pewter plate with fish steak, large and small loaves of bread, and a large cheese. Note cat at right foreground.



Steen's works were very useful for information about middle class family meals and celebrations, but, as a check against over-reliance on Steen, it was necessary to look at meal time paintings by other artists. Nicholas Maes's "An Old Woman Praying" (Plate 4.4) shows a substantial meal of cheese, wheat bread, white rolls, beer or wine, stew or gruel, butter, and a fish steak (probably salmon). Food-related objects are clearly painted: a small red earthenware grape on a wooden plate that functions as a trivet; a pewter plate that holds the fish; a small white faience dish for the butter; a blue-decorated German stoneware jug; a bone-handled knife; and a metal spoon. The breads and cheese sit directly on the white tablecloth. The same types of foods and artifacts are thus seen in the Maes and the Steen paintings, but Maes includes a faience dish; all of Steen's serving vessels are pewter chargers.

A Metsu family scene that is thought to show the festivities associated with Twelfth Night is similar to Steen's groups but its inclusion of a large piece of meat that is probably a standing rib roast is unusual. With the notable exception of hams, large pieces of meat are not common, probably because they would spoil. A ham would have a much longer shelf (or, more accurately, studio) life than a roast.

De Hooch, Sorgh, Vermeer and others painted works whose subjects are small groups of men and women, often only a couple, engaged in conversation or music making and drinking. The participants are not eating, but wine, and sometimes fruit, are in evidence; men and women have stemmed wine glasses in their hands or nearby, wine is in faience or stoneware jugs, and fruit is in dishes on tables. The wine glasses and jugs have the same form as in other middle class domestic scenes, but the serving vessels are more likely to be porcelain or faience than pewter. "The Lute Player" by Sorgh, for instance, shows fruit in a Chinese porcelain dish

and wine in a faience jug. Many of these paintings are thought to involve amorous situations (Sutton 1984:154,127), and the inclusion of fruit probably referred to the choice between a virtuous and a sinful life: all types of fruit, not just apples, symbolized mankind's fall from grace and the individual's need to choose between good and evil (Segal 1983:3-17; Schama 1987:462).

Elite Interiors

Elite interiors with food are much less common than peasant or middle class scenes. Opulent interiors were painted, but they do not usually incorporate food. One exception is a painting by Steen inscribed by him "Easy Come, Easy Go" within the painting. The motto is on the elegant hearth positioned beneath a portrait of the goddess of fortune. Obviously another cautionary tale, Steen placed a self-portrait, (he almost always included himself as a figure in his paintings), as the central figure. An ornate silver salt cellar and a loaf of white bread sit before him while a maid opens oysters and a richly-dressed woman offers him wine in a delicate stemmed glass. A boy pours wine from a square-sided bottle, taken from a large metal cooler, into a Jan Steen kan, and a dog sniffs a peeled lemon or citron. The oysters are on a large pewter charger, and a large porcelain dish (its contents cannot be discerned) is also on the table.

Conversation pieces by ter Borch also show rich interiors. Ter Borch's "Soldier Offering a Young Woman Coins" for example, has a silver wine jug; fruit is presented on both a large, lobed, white faience dish and an embossed silver charger. This particular interior has been judged to be very elegant (Sutton 1984:153), but it seems to have the same theme of choice between sin and virtue as do many of the other conversation pieces.

It is likely that very elegant interiors were rare

subjects because most of the painters were not rich themselves. The artists most often painted everyday objects with which they were familiar. Ter Borch, as noted above, came from a very wealthy family; his everyday material culture was probably more opulent than that of the other genre painters. It is also possible that the ideal of moderation that was so important in Dutch culture worked against the simultaneous depiction of people and expensive, sumptuous foods and artifacts. Such foods and artifacts were portrayed in numerous Still Lives (see below), but without people. In the late sixteenth and earliest seventeenth centuries, paintings with literally piles of food alongside numbers of elegant wine glasses, metal cooking and serving vessels, and Chinese porcelain were not uncommon, and people were parts of the composition, but the people were servants preparing food or were in small background inserts with, usually, religious connotations. By the second decade of the seventeenth century, people had disappeared from these scenes.

TAVERN SCENES

This group bore many similarities to Domestic Scenes. In general, tavern scenes identified as peasant scenes by the subjects' clothes and furnishings, had the same types of foods and food-related artifacts as peasant domestic interiors, and middle class taverns the same as middling interiors. No elite tavern scenes were located. The boisterous peasant tavern scenes often include a variety of earthenware mugs and jugs, sometimes, as in Brouwer's "Peasants Fighting at Cards," used as weapons as well as drinking vessels. Frans van Mieris's "The Peasant Inn" shows a serving woman standing by two men at a table. One man drinks from a tall wooden mug while the other cuts something with a knife. The table is half covered with a white cloth on which sits a dried fish; a tall, plain beer

glass is on the uncovered half. Nearby are a taped beer barrel, a large stoneware bottle with a cork, and a red earthenware colander holding mussels.

The more sedate middle class interiors generally have stoneware and metal vessels, rather than redwares, and a greater variety of glasses, as in Steen's "Inn with Violinist and Card Players." Long-handled metal frying pans are also common in Steen's tavern scenes, (the "Prinsjedag" and a "Tavern Scene" for example). The "Prinsjedag" scene also shows large faience or maiolica plates or chargers decorated in imitation of Chinese porcelain. These vessels were probably used for serving in the manner of large pewter chargers.

FOOD PREPARATION

Food preparation was the subject of various artists working in the third and fourth quarters of the seventeenth century. For the most part, these paintings show middle and upper class women or their servants working in hearth areas of multi-purpose rooms or in separate kitchen rooms. The artifacts are again similar to those shown in the Domestic Scenes but a greater variety of cooking vessels are illustrated. Jan Vermeer is famous for his quiet paintings of women working, playing music or reading letters. His "A Maidservant Pouring Milk" is a beautiful example of the food preparation group; the redwares used in food preparation and the different types of bread were painted with his characteristic attention to the play of light on different surfaces. He included a red earthenware pitcher, a large red earthenware grape into which milk is poured, baskets, and a blue-decorated stoneware jug. The redware testje on the floor in the foot warmer box in this and many other paintings is similar in shape to a grape but it is used to hold hot coals or smoldering peat.

Nicholas Maes also painted a series of works showing

women engaged in everyday household activities like spinning, sewing and cooking. His "Woman Plucking A Duck" attests to the inclusion of wild birds in the diet and includes various artifacts: a faience plate decorated in a Wan li (see the Glossary) design (Wilcoxon 1987:82); a large redware colander; a wooden bucket with apples; and an iron cooking pot with a handle. De Witte's "Kitchen Interior" shows a similar iron pot suspended from a hook over a fire.

Reynier Covijn was another painter who depicted food preparation scenes. His "The Kitchen" portrays a woman pouring melted butter, or some other clear sauce, from a small earthenware pan over a fish. The fish rests on a large pewter charger that sits on an earthenware komfor (chafing dish). Covijn's "The Milkwoman" shows the large brass cans used to transport milk from farms to customers. The milk seller in this painting has apparently just poured some milk into her customer's large grape.

Other metal food preparation artifacts are part of Pieter van den Bosch's "Kitchen Interior with Woman Scouring Pans." The woman is scrubbing a pewter plate and is surrounded by other pewter plates, earthenware grapen, a brass ladle, and a large copper cooking pot. Other large copper pots are in Steen's "Prinsjedag" and Dou's "Woman Eating Porridge." Copper pots appear to be larger in general than the iron pots noted above in the Maes and De Witte paintings, and iron pots are in turn larger than earthenware grapen.

Pancake bakers were a very popular subject. They were painted by, among others, Brouwer, Dou, Roestraten, and Brekelenkam, and drawn by Rembrandt. The earliest, (mid-1620s), "Pancake Baker" by Brouwer is a peasant interior that illustrates the tools needed to cook pancakes over an open hearth: a tall iron trivet; a large redware skillet; a wooden bucket for batter; a ladle, probably also made of wood; and a knife for turning the cakes. A later (mid-

century), "Pancake Baker" by Brekelenkam shows a woman using vessels that are very similar in form and function to the first pancake baker but that are of different materials: the skillet is iron and had a long handle, the ladle appears to be metal, and the batter pot is earthenware. "Woman Frying Pancakes" by Pieter Roestraten shows this same equipment. The three paintings are thus very similar in the forms of their pancake-making artifacts, but are different in quality of the materials used to make these artifacts. The artifacts used by the Brouwer pancake maker were made of less costly materials; an earthenware skillet instead of an iron one, wooden vessels in place of earthenware, and wooden, not metal, ladles. Based upon the furniture and clothes of the people in the paintings, the Brekelenkam and Roestraten pancake makers are middle class, in contrast to the shabbily-dressed man in the Brouwer work. In addition, the Brouwer pancake baker is unusual in two of its features: a man is doing the cooking, and in the background a child is shown in the act of eating a thin gruel or porridge. The actual act of conveying food to the mouth is very rare in genre paintings.

In a Dou work, "The Quack," one of the crowd around the central figure is a woman pancake maker who is frying pancakes on a large square griddle that sits over a komfoor. Rembrandt's sketch of "Pancake Woman and Boy" shows the same cooking arrangements. As noted above, several Jan Steen tavern interiors feature large metal skillets, similar to the ones shown in the Brekelenkam and Roestraten paintings, as props. It is likely that they were also used to prepare pancakes (as they still are in traditional restaurants in the Netherlands). Thus, it appears from these works that pancakes were not only eaten at home and in taverns, but they could also be purchased from street vendors.

The pancake bakers demonstrate cooking in vessels over open hearths and over chafing dishes. In addition, cooking

could also be done with spits in hearths, in reflector ovens before the fire, on stoves, and in ovens. One advantage of open hearth cooking is that several types of cooking can go on at one time: a pot can hang over the fire while roasts cook on spits and other pots sit on the hearth near the fire or in reflector ovens. Spitted meats, often birds, are fairly common in kitchen scenes; ovens and stoves, however, are uncommon, probably because they were less common in everyday life. Steen's "The Parrot's Cage" is the only painting seen that includes a stove at all similar to the one illustrated on the cover of De Verstandige Kock (see Chapter 3). In this painting, the stove is only partially visible and it can not be determined if it is actually a stove that contains fire within its body or if it is simply a hearth raised to waist height for cooking convenience. A kitchen interior by Metsu shows a large metal (possibly brass) reflector oven. This apparatus is semicircular and sits on feet; it would be placed in front of the hearth and would catch and reflect the fire's heat to cook the food (in this painting a bird), placed inside it.

Preparation of carcasses purchased whole was also part of food preparation in the seventeenth century. Scenes of slaughtered animals illustrate butchering techniques. A painting by Covijn shows a pig carcass hanging in a kitchen. The carcass has been skinned, split open along the ventral surface, and splayed open. The kidneys and kidney fat remain in the carcass but all of the other organs, and the head, have been removed. Slaughtered pigs or oxen prepared in this way are occasional elements in outdoor scenes, as in Michiel van Musscher's view of Haarlem. The theme was derived from the medieval depiction of "labors of the month" (Barnes 1988:36); the month of November was characterized as the "slaughtering time" when pigs and cattle were killed to provide meat for the winter (see Chapter 3). Some of these scenes include a large flat earthenware dish placed under

the carcass to catch dripping blood. In the Covijn painting, a woman is shown cleaning intestines in a shallow wooden tub (intestines were used as sausage casings). A similar tub is used for washing glasses in Sorgh's "Musical Company" and for chopping onions in Gerald Dou's "Girl Chopping Onions."

Paintings that include carcasses are also related to well-known Flemish sixteenth century kitchen scenes by Pieter Aertsen and his nephew Joachim Bueckelaer (Sullivan 1984:6-9). Although these paintings were too early for the present study they are interesting as depictions of food. These mannered portrayals have piles of foods in the foreground with kitchen workers in the foreground and middle ground and miniature biblical scenes (especially the Supper at Emmaus and Christ in the House of Martha and Mary) inserted into the background. The paintings are overflowing with fruits, vegetables, deer carcasses, hares, various animal heads, fish, swans, peacocks and other birds, sausages, and more -- probably every type of uncooked fruit, vegetable, meat, and fish known to them was included in some painting by these artists. Several early seventeenth century Dutch artists created pictures in this style (Sullivan 1984:9-13), but most were not included in this study because the paintings are more evocations of Food (in general and with a capital F) than realistic depictions of things that people actually ate at specific meals. The main food preparation activity that is shown is the spitting of meat by woman cooks. The spitted meat is whole plucked birds or pig haunches, although a scene by Cornelis Delff shows a large cooked rib roast (beef) that was presumably spitted. In addition to the piles of foods, heaps of metal -- copper and brass -- cooking utensils are included in these scenes.

A circa 1615-1620 scene by the Haarlem painter Floris van Schooten is one of the more realistic of these Aertsen-

and Bueckelaer-style paintings. Although there is a profusion of large cooper pots, the portrayal of the rest of the foods and utensils is similar to that of the later painters already discussed. In the Van Schooten kitchen, a shelf attached to the wall holds pewter plates and porcelain cups while German stoneware jugs are suspended from hooks attached to the bottom of the shelf. A large white maiolica colander holds small fish and a decorated maiolica plate has cut-up pieces of meat (possibly pork, based on the large amount of fat). An artichoke, a cucumber, a melon, and a cabbage sit on the table next to a pig forequarter. A wooden bowl of apples is in the foreground and two unplucked birds hang by their feet. The woman holds a small fish and a knife and appears poised to cut off the head of the fish.

Deer (as whole carcasses for the most part), are often shown in late sixteenth century kitchen scenes as part of the mounds of food displayed in the foreground of the composition. For example, an early (1616) painting by Adriaen van Nieulandt has a deer carcass as the central figure in a kitchen scene. Based on the amounts and types of foods and the clothing of the people in these early paintings, venison was a food that could be found, at least occasionally, in wealthy households.

After about 1635, according to Sullivan (1984:23-32), there was a transition between these early kitchen scenes that include dead game and a type of still life painting that is called a Gamepiece. These paintings, which include birds, deer, and hares, will be discussed below with other still lifes since people are not an essential part of these scenes. However, another group of paintings shows men with guns presenting the results of their bird hunting to appreciative, or at least attentive, women. The implication in these paintings is that the women will now prepare, or direct their servants to prepare, the birds for consumption. These scenes are set in prosperous interiors. Metsu's "The

Hunter's Gift" shows a man offering a duck and what might be a grouse to an elegantly-dressed woman. The woman sits at a table covered by an oriental carpet and in the background is a large ornate cupboard (kast) with a statue of cupid.

STILL LIFES

Fruit, cheese, fish, ham, birds, pasties, olives, etc. were not only victuals to the seventeenth-century Dutch but were also objects of beauty to be admired and contemplated as subjects for Still Life paintings. Still Life painters used common as well as luxurious foods and artifacts to create harmonious, serene scenes. This group of paintings is somewhat more difficult to apply to the study of foodways because the relationship of people to the artifacts and food is not shown. Nevertheless, since many of the objects portrayed are intrinsically expensive, they supply the missing evidence for costly foods and artifacts.

Numerous art historians have divided seventeenth-century still lifes into various categories, but the divisions that will be followed here are those of Segal (1988). He noted that, although there is some overlap between the categories, the still lifes can be separated into "breakfast pieces," "banquets," and "sumptuous" still lifes (Segal 1988:14-15,28). Breakfast pieces have simple foods and artifacts, banquet scenes have more elaborate foods and artifacts, and sumptuous still lifes have the most luxurious objects.

Simple scenes from the second quarter of the century by Pieter Claesz are typical breakfast pieces; they usually show three of the basic foods of the Dutch (beer, bread, and herring), with plain pewter plates, knives with fairly ornate metal and wood handles, and straight-sided glasses holding beer. Nuts, lemons, and wine in Roemers are also common. The bread is most often small white loaves but can also be rusks.

Plate 4.5

"Still Life with Turkey Pie" by Pieter Claesz, Rijksmuseum, Amsterdam. From right to left: Oriental porcelain bowl with a variety of fruit; small pewter plate with salt and a paper spill holding pepper; lemon slices; pewter plate with oysters; turkey pasty crowned with the head, wings, and tail of the bird; nautilus shell goblet set in gold or electrum; small white loaf; hazlenuts and walnuts; Roemer glass with white wine; pewter plate with a small pasty; pewter plate with lemon; knife with enameled handle; small oriental porcelain bowl with olives; silver jug standing on a pewter plate.



Banquet still lifes are more elaborate. "Still Life with Turkey Pie" by Claesz (Plate 4.5) for instance, includes a greater variety of food and artifacts: opened oysters on a pewter plate; lemon and salt with pepper in a paper spill; green olives in a small porcelain dish; fruit (apples and grapes) in a large porcelain dish; a nautilus shell set in a gold holder; a silver jug touched with gilt; white wine in a Roemer glass; an opened fruit pasty on a pewter plate with a silver spoon; a silver knife; white bread; and a turkey pasty crowned with the turkey's head and wings.

For the most part, the breakfast pieces and banquet scenes show foods and artifacts that are familiar objects from the middle class interiors and tavern scenes and the Civic Guard's meals noted above. However, the elaborate artifacts that are prominent features in the sumptuous still lifes are not generally portrayed in other paintings. These luxurious objects²⁶ are silver and gilt goblets, holders for glasses (bekerschroef), and tazzas (large wide, shallow, stemmed trays/goblets), elaborate wine glasses, nautilus shells in gilt holders, and Chinese porcelain cups and bowls. Some of the goblets, specifically the elaborate gold or silver forms with intricate attached covers, were almost certainly ceremonial objects that would not have been used in households (Schama 1987:179ff.; Segal 1988:69-70). These masterworks of the goldsmith's art were created for use at the banquets held by guilds, municipal officials, militia companies, and other official or fraternal organizations. The sumptuous still lifes include some of the costliest foods and artifacts known to the Dutch but, once again, in addition to their display of rare beauty they are thought to have carried a message of moderation:

the theme of "pronken" [sic] is present in these

²⁶. In Dutch called pronk, literally "show-offs."

virtuosity, but rather for moral reasons. Indeed, the most affluent European society of its day ... was preoccupied with its soul and revealed in its art a considerable ambivalence about its wealth (foreword to Segal 1988).

The costly objects were designed, at least in part, to not only display wealth but also to show that it could be tempered by order and moderation.

Leaving aside the moral implications of the sumptuous still lifes, they show the most expensive types of Dutch foods and food-related artifacts. The artifacts have been listed above. The foods are not very dissimilar in general type from those in, for example, the Claesz "Turkey Pie" composition, but they differ in specifics. Victuals painted by Jan de Heem, one of the masters of the sumptuous still life according to Segal (1988:141 ff.), exemplify these foods. A still life by De Heem can include all of the following: lobsters, oysters, crabs, and prawns; domestic and imported fruits (apples, grapes, cherries, pomegranates, figs, peaches, lemons, oranges, and melons); white wine; white bread; pasties/pies with decorated crusts; and nuts. The only meat that appears is an occasional ham; hams in sumptuous paintings are distinguished from those in more humble scenes by their blackened skins, probably the result of careful curing with spices. Fish are rare but are included in some of the simpler compositions, as in two paintings by Willem van Aelst, where they are coupled with onions.

Although, as noted above, metal and glass food-related artifacts appear in almost every still life, ceramics are less standard. Porcelain dishes or bowls are by far the most common type and are depicted in most of the banquet pieces and sumptuous scenes. A still life by Heda at the Philadelphia Museum, which has elements of both breakfast and banquet pieces, is unusual because it includes a small, round, brown stoneware mustard pot beside a ham. In some

banquet and sumptuous pieces, for example another still life by Heda at the Museum of Fine Arts in Houston, a silver mustard pot is with a ham, but the Philadelphia painting is an unusual instance of a stoneware vessel.

Some still lifes that feature game form a category outside of Segal's classification. Early (ca. 1635-1650) Dutch gamepiece still lifes generally include people, kitchen utensils, and vegetables along with the dead hares and birds that are their central figures. Rembrandt executed several paintings of people with dead fowls (one a self-portrait with a dead bittern) in which the primary visual interest is the plumage of the birds. However, after 1650, the gamepiece became essentially a trophy piece and hunters' equipment was the only item shown with the dead animals. The paintings, with their expensive accoutrements, have been interpreted as "souvenirs of the hunter's good fortune ... which allude to the wealth of the [artist's] patron" (Sullivan 1984:46). Sullivan noted that, as the years passed, the size of the animals portrayed is larger and more impressive and they are frequently placed before backgrounds that contain classical architectural elements, as in several paintings by Jan Weenix. Various wild fowls were by far the most frequently depicted animals, followed by hares, domestic birds, and, occasionally, deer and, rarely, wild boars.

SUMMARY OF TYPES OF FOODS AND ARTIFACTS IN GENRE PAINTINGS

Tables 4.1 and 4.2 summarize the information from the genre paintings. The information is listed simply as presence or absence without any indication of frequency. The greatest variety of foods and artifacts was seen in Middle Class Interiors, followed by Sumptuous Still Lives. Few Elite Interiors were portrayed but if they had been it is likely that they also would have had a variety of foods and artifacts.

Table 4.1 Food in Genre Paintings

	"Peasant" Interiors	Middle Class Interiors	Elite Interiors	Breakfast Pieces	Banquet Pieces	Sump- tuous Pieces
Bread						
coarse	+					
rye	+	+				
wheat		+	+	+	+	
sweet		+	+			+
Pancake	+	+				
Waffle		+				
Pasty		+	+		+	+
Gruel	+	+				
Cheese	+	+		+		
Butter		+		+		
Fish						
dried	+					
fresh/pickled		+		+	+	
Meat						
ham		+			+	+
roast		+				
pig carcass		+				
cow carcass		+				
Bird						
roast bird		+	+			
game		+				+
Hare		+				+
Shell Fish						
mussels	+	+				
oysters		+	+		+	+
crab			+		+	+
lobster						+
Vegetables	+	+			+	
Fruit		+	+	+	+	+
Olives					+	+
Nuts		+		+	+	+
Eggs		+				
Salt		+		+	+	+
Pepper		+			+	+
Beer	+	+		+		
Wine		+	+	+	+	+

Table 4.2 Artifacts in Genre Paintings

	"Peasant" Interiors	Middle Class Interiors	Elite Interiors	Breakfast Pieces	Banquet Pieces	Sump- tuous Pieces
Coarse earthenware						
<u>grape</u>	+	+				
cooking pot	+	+				
<u>steelpan</u> (skillet)	+	+				
colander	+	+				
plate	+	+				
<u>bakje</u>	+					
mug/jug	+					
pitcher	+	+				
dish	+					
Maiolica/Faience						
plate		+				
charger		+				
bottle		+				
bowl		+				
dish		+	+			
Stoneware						
mug/jug	+	+				
Porcelain						
plate						+
cup						+
bowl			+		+	+
dish			+		+	+
jar						+
Pewter						
plate		+	+	+	+	
charger		+	+	+	+	+
jug		+	+	+	+	
"Jan Steen kan"		+	+			
salt cellar				+	+	
spoon		+				
Glass						
tumbler	+	+		+	+	
Roemer		+	+	+	+	+
stemmed wine glass		+	+		+	+
Silver & Gold						
tazza			+		+	+
<u>bekerschroef</u>			+			+
drinking vessel			+		+	+
jug					+	+
salt cellar			+			
charger			+		+	+
bowl					+	+
spoon					+	+
knife			+		+	+
Iron						
cooking pot		+				
skillet/griddle		+				
knife	+	+		+		
Copper & Brass						
cooking pot		+				
cooking utensils		+				
pail		+				

Wood		
plate	+	
mug	+	
jug	+	
tub	+	+
barrel	+	+
spoon	+	
pail	+	+

It appears from the paintings that the Dutch ate relatively little red meat. Fish and cheese are the most commonly pictured sources of protein with ham occasionally illustrated. Many varieties of fresh fish were eaten as well as some smoked, dried, and salted fish. Birds, whether chickens, turkeys, or wild fowl, were roasted for banquets or meals in prosperous households or made into pasties.

Various fruits and vegetables are depicted in genre paintings. Vegetables, especially root crops and cabbages, figure in kitchen scenes and peasant meals, while fruits are most commonly seen in the context of still lifes and middle class interiors.

Wheat bread is the most ubiquitous food in the paintings. Types of bread range from small rolls to large loaves to fancy pretzel shapes. Bread-related foods like pancakes, waffles, porridges, and gruels are also common. Fancier forms like cookies or sweetened breads are not common and are usually seen in the context of a celebration.

To understand the actual use of artifacts, paintings are invaluable. To cook food, pots and skillets of both earthenware and metal were used over open fires in hearths. It appears that those who could afford it used metal skillets and large cooking pots, but earthenware grapen were used by both the less prosperous and the middle class. (This is not to say that the elite did not use grapen, but grapen were not part of the communal meals, amorous conversations, and still lifes that comprised the elite scenes used in this study.) As tablewares, the poorest used plain red earthenwares, wood, or ate directly on the table. Middle class households used faience and pewter tablewares. German stoneware jugs were used by the middle and lower classes to hold beer and wine, but only lower class households used earthenware mugs or jugs. Stemmed wine glasses and Roemers are seen in middle class domestic and

tavern scenes, elite communal meals, and still lifes. The more elaborate still lifes include small oriental porcelain dishes filled with berries or olives and large porcelain dishes for apples, peaches, and other fruits; the most elaborate scenes also have ornate silver and gilt vessels.

The same basic foods and artifacts appear to have been used by most seventeenth-century Netherlanders. However, ascending the socio-economic scale, the style and materials of artifacts became more elaborate and costly and a greater variety and quantity of foods as well as more expensive foods were consumed. Many of the middle class and peasant interiors show groups of people, sometimes identifiable as extended or nuclear families, sharing meals. The people are grouped around tables (small ones, or occasionally barrels, in peasant interiors, large ones in more prosperous surroundings) and the adults are seated on pieces of furniture that range from simple stools to elaborate arm chairs. An older man is almost always the occupant of the most substantial chair. The children, however, are often shown standing around the table or seated slightly apart at small benches or stools, and they do not always share the tablewares of the adults. For instance, they are shown quarreling over cooking pots or holding small vessels in their hands. The adults use plates, chargers, or dishes on the table, but the children in some paintings use different kinds of food service vessels because they do not eat from tables but instead eat from vessels held in their hands.

Drinking of beer and wine was the most common activity in the genre paintings: people drank during family meals, in groups in taverns, while smoking pipes, and during intimate conversations; in addition, still lifes almost invariably included wine and/or beer in jugs and glasses.

CONCLUSION - DUTCH SEVENTEENTH CENTURY FOODWAYS

Information from the documents cited in Chapter 3 and the paintings in this chapter are supportive, not contradictory, of each other. Both sources omit some information, but used together they present a coherent picture of Dutch foodways. The paintings were more informative about artifacts and their uses; the documents gave more specifics about the variety of foods eaten. The most common foods in the paintings were bread, cheese, beer, ham, herring, and -- in sumptuous still lifes and interiors -- fruit. However, the documents contained evidence of the importance of various stews composed of meats and vegetables (hutspots) and of grain gruels. No hutspot was identified in the paintings examined for this study and the portrayal of gruels was rare. The only definite example was in "The Girls' Dining Hall in the Reformed Parish Orphanage, Amsterdam." Another painting, by Dou, reputedly of Rembrandt's mother, shows a woman eating something out of a very large grape and is entitled "Woman Eating Porridge," but the food is not actually shown. The contents of some of the grapen that were so common in other scenes might well have been gruels or stews, but this could not be determined. Red meat, other than ham, was also rarely included in the paintings, although it was a frequent ingredient in recipes. Burema and Van't Veer and the institutional menus frequently mentioned meat but the type consumed was not specified.

The combined data from the paintings and documents confirm that foods commonly eaten by most Netherlanders in the seventeenth century were bread, cheese, butter, fish in various forms, and beer. There were some differences in this basic pattern in type and quality of foods according to wealth. The poor ate salted or dried fish, coarse wheat or rye breads, cheese, gruels, pancakes, legumes, root vegetables, mussels, beer, milk, and whey. Meat,

specifically ham and bacon, was not uncommon among the poor. Middle class foods were plentiful and varied. Wheat bread, cheese, meat (again especially ham but also beef and fowls), fish (fresh and smoked), oysters, meat stews, green and root vegetables, pancakes and waffles, meat and fruit pasties, fresh fruit, beer, milk, whey, and wine were familiar foods. These foods were also consumed by the most prosperous households. The most extravagant foods, probably found only or at least almost exclusively in rich households, were white breads, lobsters and other shell fish, many varieties of fruit, and specially cured hams. Both middle-class and poor households relied heavily on grains and dairy products, but the less well-off substituted legumes for meat protein.

The paintings, as noted, had much information about artifacts. As with foods, some types of artifacts were common to most Dutch households. Red earthenware grapen were seen in paintings of many poor and middling households but not in scenes of communal meals, banquet pieces, and sumptuous still lifes. Pewter plates and chargers were used by all except the poor. Straight sided and stemmed drinking vessels made of glass were seen in use in middle class interiors, (the former also infrequently in peasant scenes), in communal elite meals, and on tables in all types of still lifes.

There were some obvious differences in the material culture of households of different economic status, particularly in food service-related artifacts. In general, peasant households used wooden and coarse earthenware mugs, bowls, and plates, wooden spoons, and knives with plain bone or wooden handles. Middle class households used more costly artifacts: plates and chargers made of pewter; faience, and, occasionally, porcelain, bowls and dishes; pewter, faience or stoneware jugs of various sizes; iron and pewter spoons; and knives with elaborate handles. The wealthiest

households probably used at least some of the artifacts shown in the sumptuous still lifes: porcelain bowls and dishes, silver chargers, silver and gilt jugs, and elaborate facon de venise stemwares.

There were also differences in food preparation artifacts, although earthenware grapen and iron cookpots seem to have been ubiquitous. The different "pancake baker" scenes, as noted above, showed the potential differences between poor and middling households' equipment: the middle class households used metal skillets instead of earthenware, and earthenware batter pots in place of a wooden pail. It is also likely that some specialized metal food preparation artifacts -- in particular, waffle irons, griddles, ladles, and large copper pots -- were more common in middle class and elite households than among poor families.

On the largest scale of food preparation artifact, most households did not have separate kitchen rooms. The great majority of the paintings showed food preparation in rooms where other activities were occurring. Separate kitchens would have been costly to construct and maintain and would have created a division in the activities of the household. Most houses also did not have bake ovens and many, if not most, did not have stoves. Cooking was done in open hearths, using pots suspended over the fire for boiling and stewing, and spits or reflector ovens for roasting. Baking, except in the best-equipped households, was not done in the home.

Many common foods could be eaten without further preparation once they were in the home. Bread, cheese, beer, butter, and smoked or salted meat or fish could be eaten without cooking. However, all of these foods required considerable processing time -- to transform grains into bread and beer, milk into cheese, pigs into ham, and fish into pickled herring -- but the necessary labor, supplies, technology, and skill were shared by householders and food

preparation specialists. A food-preparer in a poorly-equipped household could quickly prepare and serve a meal with a minimum of artifacts and skill: perhaps a knife for cutting cheese and bread and some sort of jug for holding beer. Food preparation in these circumstances was not laborious or time consuming. On the other hand, many of the foods described in De Verstandige Kock were time consuming to prepare and necessitated specific artifacts and more than a minimum level of culinary skill.

Many foods and artifacts thus appear to be common to most seventeenth century Dutch. However, as household wealth increased, the materials used to manufacture artifacts and the embellishments with which they were decorated became more costly and elaborate. Food also became more elaborate and time consuming to prepare and required some specialized kitchen equipment. Food preparation specialists (bakers, confectioners, cheesemakers, brewers, butchers) were important contributors to most households' foodways.

Many staple foods will have left virtually no trace in the archaeological record. Bread, cheese, and beer normally leave no residues to be recovered. Beer drinking at least usually needs glasses or mugs that can become part of a deposit, but if bread and cheese were not made within the household, there will be no artifacts to indicate their presence. Grain gruels and pancakes require pots and frying pans for their preparation, but these vessels were frequently made of metal and thus are not likely to be recovered from archaeological contexts. Nevertheless, the foodways of the Dutch who came to New Amsterdam can be examined through the documents they created, the subject of the next chapter.

CHAPTER FIVE: AMERICAN DOCUMENTARY SOURCES

INTRODUCTION

When the Dutch arrived in New Netherland in the early seventeenth century they brought their dietary expectations and eating habits with them. In this section contemporary documents concerning the New World will be used to examine the question of whether the Dutch attempted to replicate their European foodways in New Netherland, and if so how successful they were. A number of contemporary documents pertaining to conditions in New Netherland and early New York contained references to the availability of food and agricultural productivity: the following account is based on letters from officials to their sponsors in Amsterdam, descriptions of the colony written for Dutch readers, memoirs of residents of New Netherland, and traveler's descriptions; discussed in roughly chronological order and combined to create an outline of Dutch-American foodways in New Amsterdam/New York City.

CONTEMPORARY ACCOUNTS -- THE NEW NETHERLAND PERIOD

The first shipment of substantial amounts of European domestic animals was sent to New Netherland in 1625; it consisted of "one hundred and three head of livestock -- stallions, mares, bulls and cows -- for breeding and multiplying, plus all the hogs and sheep they thought it expedient to send" (Van Wassenauer in Jameson 1909:79). These animals were sent over in two ships and were so well-tended that only two animals died during the passage. Unfortunately, twenty head of cattle died soon after arrival from eating poisonous plants (Van Wassenauer in Jameson 1909:82-83). They had been allowed to range freely to graze (probably on Governor's Island) and, being unfamiliar with the local vegetation, had eaten something noxious.

These animals were probably destined for the six farms

established on Manhattan Island by the Dutch West India Company that were worked by employees of the Company. By at least 1628, when the farms were mentioned in a letter from Isaac de Rasieres, a Company official, to one of the Directors of the Amsterdam Chamber, they were ready to be planted with wheat, rye and buckwheat (De Rasieres in Jameson 1909:104).

In the same letter, De Rasieres described the Indians' methods of maize agriculture, and, although it is evident that he was familiar with maize as a food, he did not mention it as a crop cultivated by the Dutch:

The finest meal they [the Indians] mix with lukewarm water, and knead it into dough, then they make round flat little cakes of it, of the thickness of an inch or a little more, which they bury in hot ashes, and so bake into bread; and when these are baked, they have some clean freshwater by them in which they wash them while hot, one after another, and it is good bread, but heavy. The coarsest meal they boil into a porridge ... and it is good eating when there is butter over it, but a food which is very soon digested (De Rasieres in Jameson 1909:108).

Thus, by the late 1620s, Dutch and Indian foods (butter and maize) were being eaten together and Dutchmen were familiar with the Indians' simple methods of preparing maize.

De Rasieres wrote his letter from memory while in Amsterdam, but a contemporary letter from Domine [Reverend] Michaelius to his superiors in Amsterdam was written from New Amsterdam after his arrival as minister to the town in 1628. Michaelius was in difficult circumstances because his wife had died shortly after arrival and he had no female help in his household. Maidservants were not to be had, slave women were "thievish and lazy", and his daughters were still young (Michaelius in Jameson 1909:129). Moreover, the company's promise of land for his support was "useless, for their Honors [the Directors] well knew that there are no horses, cows or laborers to be obtained here for money" (Michaelius in Jameson 1909:130). There is some evidence

that the Company's cattle had been diverted by Director Van Twiller (who was the nephew of Kiliaen van Rensselaer, the patroon, see Chapter 2) to Rensselaerwyck, and this was probably one cause of the livestock shortage near New Amsterdam at this time (Raesely 1945:65). Michaelius stated that everyone wanted more cattle and that milk and butter were in short supply and very expensive when they could be obtained from those who had cows. Furthermore, the ships that arrived did not carry "butter and other necessities", so he would be forced to pass the winter without them (Michaelius in Jameson 1909:130). His food consisted of rations given out by the Company, (for which he had to pay): hard fare of beans, gray peas, barley, and dried fish. These foods were typical ship's rations, as noted in Chapter 3, and were probably standard food for Company employees on board as well as in new colonial situations. Michaelius suggested that ten or twelve additional farmers with horses, cows, and laborers would be able to supply all the "bread, milk products and suitable fruits" that New Amsterdam could need (Michaelius in Jameson 1909:131). He noted that the Indians brought in foodstuffs, but that he had no goods to trade with them so could not take advantage of this source. The 1628 harvest was good, but he added that in previous years the people had been distressed through lack of bread. This "distress" was not caused by shortage of food in general, but scarcity of a preferred type of food. There is no evidence from any of these sources that the people of New Netherland experienced the severe food shortages that were common to other early seventeenth century colonies, notably Plymouth and Jamestown, in the Northeast.

Cornelius van Tienhoven, then secretary of the colony, in 1650 wrote for the Stadts General a document entitled "Information Relative To Taking Up Land in New Netherland, in the Form of Colonies [Patroonships] or Private Boweries" (Demos 1972:20). The document described lands in areas

surrounding Manhattan, (Long Island, New Jersey and along the Hudson), and gave advice as to how new farmers should proceed with their husbandry. The first spring "garden vegetables, maize, and beans" should be planted; winter wheat should be planted in the fall (Van Tienhoven in Demos 1972:23). Tobacco should be grown as a cash crop and to help "mellow" the soil. Only a pair of draft horses or oxen was required at first for plowing but "all sorts of cattle [could be purchased] in the course of the second summer" (Van Tienhoven in Demos 1972:24). Hogs should be allowed to run in the woods and then fattened in the fall, after which they could be sold and the profit used to purchase horses and cows. The necessary animals for a flourishing farm included "good mares and sound stallions, yoke oxen, milch cows of kindly disposition, good bulls, sheep, sows, etc." and fowls, which were "well-adapted" to boweries (Van Tienhoven in Demos 1972:25). Van Tienhoven stated that all these animals could be purchased in New Netherland or in New England, where horses and cattle were more abundant and cheaper. He recommended that settlers should provide themselves with preserved meat, butter or oil, vinegar, and dried peas and beans and noted that "salad oil and vinegar are not easy to be had in that country, except at an excessively high price from the Dutch traders (Van Tienhoven in Demos 1972:27).

Domine Johannes Megapolensis was another minister sent from the Netherlands to attend to the spiritual needs of the colony; from 1642-1648 he was in Rensselaerwyck and after that in New Amsterdam where he continued until his death in 1669. His letters to Amsterdam were published in the mid-1640s and became the source for many later publications describing New Netherland. Since his information was contemporaneous with and largely identical to that in Adriaen van der Donck's A Description of the New Netherlands, they will be discussed together.

Van der Donck's volume was published in Amsterdam in 1655 and is the most comprehensive account of conditions in New Netherland at mid-century. Van der Donck was sent to the colony in 1641 by Kiliaen van Rensselaer (see Chapter 2) to serve as schout, (generally translated as "sheriff"), in the patroonship of Rensselaerwyck. The schout was an officer whose duties were to look after the patroon's legal interests and to administer justice within the boundaries of the patroonship (Van der Donck 1968:xiii). Van der Donck found the country, but not the job, compatible, and by 1646 had purchased a large tract of land for himself on the east bank of the Hudson directly above Manhattan Island (Van der Donck 1968:xxvii). He did not remain peacefully on his estate, however, and by 1649 had become one of the leaders of the Board of Nine Men, who represented the interests of the colonists in their dealings with the Director-General (Stuyvesant) and his council. The Nine Men and Stuyvesant clashed frequently, and the culmination of their disputes was a formal written list of complaints against Stuyvesant that was to be presented to the States-General in the Hague by Van der Donck. Van der Donck arrived in the Netherlands in the autumn of 1649 and remained there, held up by legal and bureaucratic delays, for almost five years. During these years of waiting, he wrote the Description as part of his efforts to secure the future of the colony through increased immigration (Van der Donck 1968:xxxviii). Since the Description was, to some extent, a document designed to make New Netherland attractive to potential settlers, it emphasized the virtues of the land; however, it was a work of fact based upon first-hand experience that included much information about domestic and wild animals and plants.

The New Netherlanders, as noted above, had brought with them their European crops and animals. Van der Donck began his discussion of domestic animals with horses, the most important agricultural draft animals in the Netherlands.

Large horses, suitable for agricultural work, had been brought over from the Netherlands, specifically from the province of Utrecht, and "did not diminish in size or quality" from the parent stock (Van der Donck 1968:40). Lighter, cheaper, English horses for riding were "easily obtained", probably from New England (Van der Donck 1968:40).

Cattle were, for the most part, of the breed common in the province of Holland, but had become smaller than their Dutch progenitors. According to popular opinion, as noted by Van der Donck, they had dwindled in size because the hay was not as good as in the Netherlands and because heifers were bred at a younger age in order to get a quick increase of stock (Van der Donck 1968:40). Some cattle from the province of Utrecht had also been brought over and thrived on open pastures but were not quite as fertile as those in Europe (Van der Donck 1968:41). Miller (see Chapter 1), noted that in the Chesapeake it was common to allow cattle to roam freely for most of the year, in contrast to the labor-intensive English barnyard system, and Van der Donck testified to similar conditions in New Netherland. He recorded that relatively cheaper English cattle were purchased from New England because these cattle, even though smaller and not as generous milk producers as the Holland cows, "do not require as much care and provender; and ... will do well unsheltered whole winters" (Van der Donck 1968:41). Farmers who wished to have animals with the favorable characteristics of both breeds mated a Holland bull to their English cows. Apparently, the propinquity of New England and New Netherland resulted in some mixing of farming practices as well as in mixed breeds, for Van der Donck stated that "oxen ... are not only used by the English, but by some of the Netherlanders also, to the wagon and the plow" (Van der Donck 1968:41). Van Tienhoven gave a reason for the switch to oxen from horses when he noted that

"in new lands, full of roots, oxen go forward steadily under the plow, and horses stand still, or with a start break the harness" (Van Tienhoven in Demos 1972:25).

In like manner, some New Netherlanders preferred English swine because the English hogs survived better as free-roaming animals during the winter (Van der Donck 1968:41). Pigs from Netherlandish stock were, however, larger and heavier with thicker layers of fat, a desirable feature. Hogs, both free-roaming and confined, fattened on acorns. When acorns were not available, they were fed maize which produced "the best pork, being better than Westphalia pork" (Van der Donck 1968:42).

Sheep were not as important in the New Netherlands as in New England, according to Van der Donck, because the New Netherlanders did not produce wool. In addition, sheep required considerable care since they were easy prey for wolves. Thus it was more common to raise goats who gave "good milk, which is always necessary, and because they cost little, they are of importance to new settlers ... [who] keep goats instead of cows" (Van der Donck 1968:42).

Van der Donck concluded his catalogue of animals with fowl: "[there are] every kind of domestic fowl, as we have in Holland, such as capons, turkeys, geese and ducks ... [also] several kinds of pigeons" (Van der Donck 1968:43). Cats and dogs were common and he contended that better hunting dogs were not to be found anywhere (Van der Donck 1968:43).

It can be deduced from Van der Donck's description that Dutch animal husbandry practices had been modified in ways corresponding to the changes noted by Miller for the Chesapeake; labor intensive methods were abandoned in favor of methods compatible with the sparsely populated and heavily wooded country. Dutch stock was mixed with or partially supplanted by less desirable but hardier English breeds. All of the common European domesticated animals and

fowl were present, but, with the exception of sheep, Van der Donck's information cannot be used to determine the relative importance of the different kinds of animals. It is perhaps significant that he mentioned horses first, followed by cattle, pigs, sheep, goats, fowl, and dogs and cats, but this is the conventional order for discussing domesticants, (even in present day zooarchaeological reports).

Concerning the wild animals, Van der Donck could personally testify to the palatability of buffalo, raccoon, beaver, wild varieties of rabbit and turkey, and, of course, deer. Domine Megapolensis had also eaten these animals and in addition had eaten elk, which he described as very fat and much like venison (Megapolensis in Jameson 1909:169). Squirrels, muskrats, and ground hogs were described by Van der Donck (1968:47-48), but they were not identified as game animals and he apparently had not eaten them. Of the wild meats, venison was the most plentiful, and Van der Donck reported that a buck could be bought -- it is implied from the Indians -- for five guilders or less, a relatively cheap price (Van der Donck 1968:45). Megapolensis, however, noted that prices for deer and wild turkeys varied with availability. In 1641 deer were so plentiful that Indians would exchange one for a loaf of bread, a knife, or a tobacco pipe, but in succeeding years the price rose to six or seven guilders (Megapolensis in Jameson 1909:169). Neither Megapolensis nor Van der Donck reported eating bear, but Van der Donck quoted "several Christians" who compared bear meat favorably to swine's flesh and fat (Van der Donck 1968:45).

In his discussion of "buffalo", actually the bison B.americanus, Van der Donck observed that

"these animals are not very wild, and some persons are of the opinion that they may be domesticated and tamed. It is also supposed that a female buffalo, put to a Holland bull, would produce a cross breed which would give excellent milking cattle, and that the males would

form fine hardy working animals when castrated ... if a cross breed succeeded, it would become more natural to the climate" (1968:45).

Van der Donck, and some of his fellow colonists, were thus aware of the availability of a native species that was potentially suitable for domestication, either in a pure form or as a cross breed. Neither the New Netherlanders nor any other European colonists took advantage of the bison's capacity for domestication. (It has only been in the twentieth century that people have begun to raise semi-domesticated bison and to breed an animal called a "beefalo".) It is generally true that Europeans in colonial situations did not attempt to increase the range of domesticated species by raising and/or controlling the breeding of indigenous wild plants and animals. Some European naturalists cultivated colonial plants as curiosities, but, unless a species had already been domesticated by indigenous peoples or was very similar to established European domesticants, (American wild grapes for example), colonists did not raise or cultivate native species. Since many European colonists simplified their subsistence practices (see Chapter 1), it is not surprising that seventeenth-century farmers did not invest time and energy in attempts to expand the numbers of domesticated species. It can also be interpreted as an indication of Europeans' attitudes about what was "proper" food.

Wild turkeys were hunted and sold by both the Indians and the "Christians" (Megapolensis in Jameson 1909:169; Van der Donck 1968:50). Turkeys, because they nested in large flocks, were easily shot at night in the trees, and the taste of wild turkey was preferred to that of domestic varieties (Van der Donck 1968:50). De Rasieres, writing in the late 1620s, was apparently not aware of this method of hunting turkeys, for he wrote of the difficulty in obtaining these birds because they could run away very quickly, even

when wounded (De Rasieres in Jameson 1909:115). This is one minor indication that the New Netherlanders' knowledge of local resources had increased over a generation. Hunting wild birds was apparently a fairly common activity for New Netherlanders, especially when the birds were attracted to sown or mowed fields, and Van der Donck listed various quails, heath-fowls, woodcocks, birch-cocks, pheasants, snipes, cranes, bitterns, and other unspecified varieties as sport and eating birds (Van der Donck 1968:51). He also mentioned the "astonishing plenty" of pigeons, especially in the spring and fall, which could be shot on the wing, in trees, or on the ground (Van der Donck 1968:51). These pigeons were probably passenger pigeons whose easily hunted flocks were reduced from an estimated pre-Colombian nine billion to the point of extinction by the nineteenth century (Root 1980:351).

Water fowl were also abundant, especially in the spring and fall. Swans, geese (grey, black, and white-headed), ducks (teal, widgeon, and brant), whistlers, coots, eel-shovellers, and pelicans were recognized by the New Netherlanders along with "strange fowls, for which we have no names, being of less importance" and all birds were plentiful and cheap (Van der Donck 1968:54). De Rasieres and Megapolensis had essentially the same accounts of the wild fowl (De Rasieres in Jameson 1909:115; Megapolensis in Jameson 1909:169).

The New Netherlanders found plentiful supplies of fish and shellfish in the coastal waters and Van der Donck named them all (see Appendix C). To summarize his discussion of fish, he placed striped bass, drums, salmon, and shad at the forefront of his list of fish and noted sheepshead and "black fish" (probably the tautog) as preferred foods. Oysters and lobsters were plentiful near New Amsterdam. All of the fishes he named are coastal or riverain species in at least part of their seasonal cycle. Van der Donck did not

specify how all of these fish were caught, whether by hook, net, or weir, possibly because the techniques would have been self-evident to his Dutch audience. Megapolensis, however, noted that some men fished with lines and three-pronged hooks, with which, in spring when the perch were running in the Hudson, his sons had caught fifty fish in an hour (Megapolensis in Jameson 1909:171). Van der Donck deplored the fact that the New Netherlanders did not "practice our art and experience in fishing ... [to] take ship loads of codfish" that were plentiful off shore and in some of the bays of the East River (Van der Donck 1968:55). However, the New Netherlanders' failure to do so is another example of colonial simplification of food procurement. Deep-water fishing for cod was more labor and time intensive and required specialists to net and preserve the fish (cod was most often consumed in the Netherlands in salted form). Fishing for coastal or riverain fish could have been done in the intervals between other tasks or could have been a recreational activity.

Van der Donck provided more information about agricultural products than did other sources. Wheat and rye could be grown on recently cleared and plowed land, and these crops generally grew well (Van der Donck 1968:30-32). However, he noted that the plants sometimes produced straw at the expense of grain. This was probably due to the weather; under conditions of combined heat and humidity, wheat sets few grain heads (Root 1980:566), and it is possible that Dutch varieties of wheat were not yet well-adapted to New Netherland's hotter summers. Barley also did well (Van der Donck 1968:32). Buckwheat was not cultivated extensively because it was not much needed, since wheat and rye were abundant, and because it was very attractive to birds. Peas, on the other hand, were a valued crop that "softens the land and makes it clean;" two crops of peas could be raised on one piece of land in one year (Van der

Donck 1968:30). Van der Donck himself did not specify what types of peas, among the varieties known to the Dutch, were grown, but the nineteenth century translator of the text identified them as large, grey "Old Wives" (Van der Donck 1968: 33).

Maize, or Turkey Wheat as it was named by the Dutch²⁷, had the advantage of growing in all sorts of soils. In addition, it could be cultivated simply with a broad hoe, eliminating the necessity of removing tree stumps from fields and enabling settlers who did not yet possess a plow and draught animals to commence farming. Van der Donck described the cultivation of maize in detail and, perhaps in an attempt to make this food less strange to his readers, added that many people identified maize as the grain that David carried to his brothers in the army before his famous encounter with Goliath (Van der Donck 1968:31). Maize and tobacco, also grown in New Netherland, were considered to be crops suited to prepare the land for other types of plants, otherwise plants might grow too fast and produce few seeds. Fields were very seldom manured, and Van der Donck makes no mention of systematic fallowing of land.

The kitchen gardens of New Netherlanders included native cultigens, Dutch plants, and a few species introduced from other parts of the world (Van der Donck 1968:67). Van der Donck claimed that his knowledge of them was imperfect, as he "has had no leisure to devote to them" but nevertheless listed

²⁷ Root (1980:237) stated that maize was called Turkey Wheat in Europe because it traveled from Spain, where it was first grown about 1525, to the circum-mediterranean countries, to the Near East, then into central and northern Europe. This seems a very round-about route for an introduced food to take; nevertheless, at least two New World foods were given the appellation "Turkey" in Dutch. Maize was "Turkey wheat" and green beans were "Turkey beans." (The domestic turkey is called kalkoen in Dutch.)

salads [lettuces], cabbages, parsnips, carrots, beets, succory [chicory], finckel [?], sorrel, dill, spinage [spinach], radishes, Spanish radishes, parsley, chervil (or sweet cicely), cresses, onions, leeks, and besides what is commonly found in a kitchen garden (1968:67).

There is no mention of whether kitchen gardens were tended by men or women, but his relative lack of knowledge about them implies that he at least had not cultivated one.

Van der Donck compared the use of various squashes and melons in the Old and New Worlds. Pumpkins were known in the Netherlands but were not esteemed; in the New Netherlands they grew easily and were of better quality. They could be prepared by stewing with water and vinegar or baked in an oven like apples; New Englanders were said to use them in pastry (Van der Donck 1968:68). The colonists adopted Indian squashes for their ease in growing and cooking as well as for their taste. The squashes were simply gathered during the summer when they reached a "certain size ... and immediately placed on the fire without any farther trouble" (Van der Donck 1968:68).

Unfortunately, he did not mention if the squashes were boiled, grilled, and/or fried, all possible cooking methods, but he did observe that young women were most appreciative of the squash's easy preparation. He also noted that squashes were unknown to the Dutch before their settlement of New Netherland²⁸. The muskmelon, familiar to the Dutch, was another plant that grew without much care and was frequently eaten; it was sometimes called "Spanish pork" (Van der Donck 1968:69). Watermelons were uncommon in the Netherlands, except for occasional imports from Portugal,

²⁸ "The natives have another species of this vegetable [the pumpkin] peculiar to themselves, called by our people quaasiens, a name derived from the aborigines, as the plant was not known to us before our intercourse with them. It is a delightful fruit, as well to the eye on account of its fine variety of colors, as to the mouth for its agreeable taste" (Van der Donck 1968:68).

but grew abundantly in New Netherland and were the melon preferred by most people (Van der Donck 1968:69-70).

Many varieties of fruit trees and bushes were brought over by the settlers: apples, pears, various kinds of cherries, several kinds of peaches and apricots, plums, almonds, persimmons, figs, currants, gooseberries, and thorn apples (Van der Donck 1968:24). Wild grapes flourished without care but had fruit that was sour and hard. However, in places where the vines were pruned and nurtured, good grapes and good wine were produced (Van der Donck 1968:26). Van der Donck assured his readers that vine dressers and vineyard workers were in the process of immigrating to the colony and promised that "in a few years there will be wine in abundance in the New Netherlands" (Van der Donck 1968:27). Megapolensis was one of the innovative vintners. He reported that he had pressed a boat load of grapes that had produced wine that, when fresh, was better than French or Rhenish Must (Megapolensis in Jameson 1909:169). Other wild fruits and nuts eaten by the Dutch included mulberries, plums, cherries, small apples, black currants, gooseberries, strawberries, blueberries, raspberries, blackberries, wild onions, chestnuts and hazel nuts (Van der Donck 1968:22-23). Hickory nuts, walnuts, and maple syrup were not mentioned.

Another Netherlander who wrote about his impressions of the New World for a Dutch audience was David Pieterszoon de Vries whose memoirs were published in 1655 (Jameson 1909:183-185). De Vries was a merchant who made numerous voyages to the East and West Indies in the capacity of trader and supercargo (the ship's officer in charge of the cargo and of trading) (Jameson 1909: 184). As part of his adventurous commerce, he attempted, in the 1630s and 1640s, to establish settlements on the Delaware River, on Staten Island, and above New Amsterdam on the west shore of the Hudson River. All of these settlements were destroyed in Indian attacks, and De Vries was consequently vehement in

his condemnations of the incompetent leadership of the colony under Van Twiller and Kieft. As noted in Chapter 2, Kieft's wars against the Indians were the cause of much distress in the colony during the 1640s. They resulted in loss of settlements and entire harvests near New Amsterdam.

De Vries's account of food and agriculture in New Netherland agreed with that of Van der Donck, but De Vries was more emphatic about the colony's problems. Like Van der Donck, he was of the opinion that the country offered everything needed for agricultural prosperity except sufficient settlers, but he was pessimistic about conditions improving as long as the colony remained the domain of the West India Company. De Vries also described Indian methods for growing maize and beans but did not list maize among the products grown by the New Netherlanders. The settlers grew "good wheat, rye, barley, oats, and peas, and can brew as good beer here as in our Fatherland, for good hops grow in the woods" (De Vries in Jameson 1909:219). They hunted deer, turkeys and pigeons and ate hazel nuts, chestnuts and wild grapes that grew in the woods (De Vries in Jameson 1909:219). His farm on the Hudson had hay-land sufficient for two hundred head of cattle "which is a great commodity there" (De Vries in Jameson 1909:205). This reference is rather ambiguous but can probably be taken to mean that beef and milk products were profitable commodities in New Netherland. Like other settlers, he planted wheat in fields previously cleared by the Indians for maize (De Vries in Jameson 1909:209; Jogues in Jameson 1909:261).

De Vries was as enthusiastic as Van der Donck on the subject of New Netherland's fishes, especially the striped bass (De Vries in Jameson 1909:222-223). He described how the Indians caught large quantities of this fish, (for immediate consumption and drying), during the spring run with both large communally-worked seine nets and smaller stationary nets. Sheepshead, which he called stone-bream,

were, however, caught on the shore. In a characteristic statement, he turned food into politics and patriotism:

In the summer-time crabs come on the flat shores, of very good taste. Their claws are of the color of the flag of our Prince [William of Orange], orange, white and blue, so that the crabs show sufficiently that we ought to people the country, and that it belongs to us (De Vries in Jameson 1909:223).

Nicasius de Sille also wrote in the 1650s but his impressions of New Amsterdam were recorded in letters sent to friends and sponsors in the Netherlands. De Sille was sent to New Amsterdam in 1653 as a West India Company official; his letters, written the year after his arrival, describe the conditions he found.

All the people here are traders. Big cattle and oxen and horses are still scarce ... wealth consists in oxen and horses to plow with, and in cows, sheep and goats. The country can supply us with grain; children and pigs multiply here rapidly and more than anything else, but there is a lack of women (De Sille 1920:98).

De Sille recorded that the Indians sold fish, crabs, venison, wild geese, turkeys, partridges, pigeons, ducks, and "various other birds and animals" to the people of New Amsterdam (De Sille 1920:101). Poultry did well in the town and oysters could be gathered from the waters in front of the Fort; wheaten bread was more common than rye or buckwheat (De Sille 1920:102). The rivers were full of good, cheap fish, including perch, sturgeon, bass, herring, mackerel, weakfish, stone bream [sheepshead], eel, shad, striped bass, drum, and others that he could not yet give names to (De Sille 1920:102). De Vries had complained of excessive drinking by many New Netherlanders, especially Director Van Twiller, and De Sille was informative about what sorts of liquors were consumed. French, Spanish, and German brandies and wines were sent from the Netherlands, but, because no ships had arrived between November 1653 and September 1654, the price of liquors had been driven up and

French and Spanish brandies had completely disappeared (De Sille 1920:105). The arrival of a ship bearing wines and brandies was warmly welcomed. In spite of this evidence, New Amsterdam was not a bottomless market for alcoholic beverages, for De Vries had reported that in 1644 a Rotterdam skipper arrived in the port with a ship full of Madeira wine but could not sell his cargo because the Company had recently captured and sold the cargo of a ship (probably Spanish) loaded with wine (De Vries in Jameson 1909:233). The unfortunate Rotterdam skipper arrived in New Amsterdam during the height of Kieft's Indian wars, and it is probable that the depressed local economy was another reason he could not sell his wines.

The image of New Amsterdam as a trading center was drawn by an anonymous 1661 "Description of the Towne of Mannadens" written in English, possibly as a document for the information of the English government (Jameson 1909:419). New Amsterdam was described as a town of tradesmen, merchants, and mariners who had much business with the Indians and with Europe but who planted and sowed little, for trade was their chief employment (Jameson 1909:424). It was claimed that linen cloth and other manufactured goods from the Netherlands went to various Long Island and New England Indians in exchange for wampum, which was in turn traded to northern Indians for furs (Jameson 1909:423). From the Dutch and English farmers on Long Island, the New Amsterdammers obtained beef, wheat, pork, butter, and some tobacco; from New England beef, sheep, wheat, "flower", bisket [probably ship's bread], malt, fish, butter, cider-apples, iron and tar; and from Virginia, tobacco, oxhides, some beef, pork and fruit (Jameson 1909:423). For these food stuffs and tobacco, they traded Holland linen and other cloth, tape, cordage, brass, stockings, spices, fruit, iron, wine, brandy, salt, and "all useful manufactures" (Jameson 1909:423). It is significant

that Virginia, New England, and eastern Long Island were controlled by the English, for the list reads like an assessment of English trade losses. This anonymous writer added that seven or eight ships arrived from Amsterdam each year loaded with passengers and goods; in return the colonists sent back furs, oxhides, and Virginia tobacco (Jameson 1909:424).

New Netherland, as part of the Dutch West India Company's trading empire, had much commerce with the West Indies, and the province supplied much of the food for the Company's Caribbean settlements and soldiers. In 1643, during Kieft's Indian wars, three ships arrived from the Caribbean to load wheat, but only two could be supplied because so much grain had been burnt by the Indians (Jogues in Jameson 1909:260). Stuyvesant, in his 1664 vindication of his conduct during the events accompanying the English takeover, explained that supplies were short in the Fort because he had just sent off provisions to Curacao (Stuyvesant in Jameson 1909:461). Stuyvesant was left with about ninety bushels of "breadstuffs" and some peas, pork, and beef, but he had not been apprehensive of any shortage because the "good wheat harvest was ... between the barn and the field" (Stuyvesant in Jameson 1909:461). For similar reasons, the inhabitants of the city did not have large supplies of food stored up and had to thresh the new grain to supply the soldiers.

SUMMARY OF THE NEW NETHERLAND PERIOD

The picture that thus emerges from these seventeenth-century narratives and letters shows that modifications to the Dutch diet had been incorporated by mid-century, but the general configurations of the New Netherlanders' diet remained European. Preferred foods were grain products, meat, and fish. It can also be inferred that dairy products were preferred foods but the amounts that the inhabitants

were able to obtain is not certain. New Amsterdam was supplied with grain from farms on Manhattan Island, Long Island, and upriver. Domestic and wild animals were eaten as well as domestic and wild birds. Maize and squash were the most important adopted foods. It is likely that maize was accepted because it was similar to other, already familiar, cereals, its cooking methods were simple, and its taste was generally acceptable. Ease of cooking and palatability probably also account for the inclusion of squash in the Dutch-American diet. Even though Dutch-American foodways had thus changed, none of the foods the colonists ate were completely alien to their European dietary expectations -- i.e., they were familiar types of food.

The Indians and the Dutch had each incorporated some of the other group's foods into their foodways. The Indians supplied the Dutch with fish, meat from wild animals and birds, and maize; the Dutch traded bread and other grain products to the Indians.

There is some evidence that animal husbandry practices had become less labor and time consuming. Van der Donck had implied that animals were allowed to live without shelter in all seasons, but there are strong indications that, at least in the 1640s, most cattle were sheltered during the winter months and driven out to forage in the spring (Jameson 1909:278; De Vries in Jameson 1909:214). These free-roaming cattle were one of the sources of conflict between the Dutch and the Indians since the Indian's unfenced fields were extremely vulnerable to the depredations of hungry cows, goats, and pigs (Rink 1986:218). It is likely, however, that farmers would confine cows with calves and goats with kids to a greater extent, both for the protection of the young and for the use of the animals' milk.

NEW YORK PERIOD - TRAVELERS ACCOUNTS

After the English takeover in 1664, political allegiance and governmental institutions changed, but there are no indications that foodways were immediately affected. The number of English immigrants to the colony did increase greatly after 1664, (Goodfriend 1976:138), and trade and communication with New England became very important, so it is possible that some English-influenced changes in foodways occurred. Some travelers' accounts from the period can help to examine this possibility.

In the last decades of the seventeenth and the first half of the eighteenth centuries, various travelers wrote descriptions of New York City. The earliest whose account has survived was Jasper Danckaerts, one of two emissaries of a strict Dutch Protestant sect looking for a suitable place to establish an utopian community. Danckaerts and his companion Sluyter traveled throughout much of the northeast; in his Journal, which covered the years 1679-1680, Danckaerts described the lands through which they traveled and the people they encountered. Unfortunately for the purposes of the present study, Danckaerts was not very interested in food, but his account did include scattered references to his meals and to food products. Danckaerts and Sluyter were most impressed by the abundance of fruit, especially the apples and peaches in New York City gardens (Danckaerts 1913:44 and passim). In 1679, the peaches were so numerous that they could not all be harvested; those that dropped to the ground were eaten by wandering pigs. Pigs, as well as cattle, horses, oxen, and other unspecified animals, were allowed to range freely on Coney Island during the winter (Danckaerts 1913:51). Staten Island also had free-roaming animals and was full of game of all kinds (Danckaerts 1913:70).

Danckaerts noted the provisioning of the settlement from the surrounding countryside in the sale of inexpensive New Jersey mutton in the city (Danckaerts 1913:83), and in

the presence of Indians from Long Island who were accustomed to bring their goods to market by way of the ferry that crossed the East River or in their own boats (Danckaerts 1913:52). Fish could be so easily caught with nets and seines in the rivers and the bay that the inhabitants could have preserved and exported them if they had wished to make the effort (Danckaerts 1913:237). Oysters, on the other hand, were pickled and sent to the West Indies. In Brooklyn, Danckaerts and Sluyter were fed roasted Gowanus oysters (cooked simply by placing them on the fire), and roasted venison that they bought from the Indians. They also ate wild turkey and wild goose and commented on the size and abundance of watermelons. According to their observations, the most common beverages for most people were cider, beer, and rum.

Near Albany, Indians served them potatoes, with which they were already familiar. Their name for potatoes suggests a possible linguistic difference between standard Dutch and the Dutch-American dialect at this time: Danckaerts (1913:200) observed that the Indians called potatoes "ground-nuts" and "although the Dutch [in New York] call them so, they were in fact potatoes, for of ground-nuts [i.e., peanuts] ... there are also plenty." It seems therefore that the Old World and New World Dutch had different names for potatoes, although both were aware of this food by this time. This linguistic difference is a possible indication that the Dutch-Americans adopted potatoes from a different source than the Dutch. At any rate, this passage is the first reference yet encountered to potatoes in New York.

Sarah Kemble Knight was a later visitor to New York. A widow and merchant, she traveled from Boston to New York City in 1704 for business purposes. Her travel diary covered her five month round trip and included her impressions of New York City. Madam Knight, although

interested in food and cooking, seems to have mentioned meals only when they were not to her liking, and her favorable account of New York City did not include complaints about food. However, there is some indirect information in her account. A common winter entertainment for New Yorkers was to ride out from the city in sleighs to visit "houses of entertainment" or friends' houses where they would be served with food and drink (Knight 1901:64). The "houses of entertainment" were taverns or inns or simply farm houses that provided meals and drink. She was taken to one such farm house, kept by a "gentlewoman", where she was served "five or six dishes and choice beer, metheglin [honey wine], cider, etc." all made on the farm (Knight 1901:64). However, she did not comment on the ingredients in these "dishes".

She described a typical New York City fireplace as an unfamiliar, to her, structure:

the fireplaces have no jambs (as ours [at Boston] have) but the backs run flush with the walls, and the hearth is of tiles and is as far out into the room at the ends as before the fire, which is generally five feet in the lower rooms, and the piece over where the mantle tree should be is made as ours with joiner's work (Knight 1901:62).

The hearth thus described is very similar to hearths painted in Dutch seventeenth century paintings. Dutch architectural influences were also apparent in the use of white tiles on the walls of a kitchen, the hearths, and the staircases of a house where she attended an auction (Knight 1901:62). These were undoubtedly Dutch-made delftware tiles, either plain or decorated with small figures in blue, and their use in kitchens, hearths and staircases was common in the Netherlands.

Although people's clothing is not directly related to their foodways, Madame Knight's observation that Dutch and English women in New York City dressed differently is an indication that ethnic distinctions were still readily

apparent in the early eighteenth century. The English, she noted, dressed according to the current fashion as she was familiar with it, but "the Dutch, especially the middling sort, differ from our women" in their dresses, caps and jewelry (Knight 1901:63). Most noticeably, they wore many large, colorful earrings and rings. It is likely that women who did not conform to English fashions in dress would also not conform to English foodways, and this passage is a hint that the foodways of New York City at this time were diverse.

Madam Knight apparently lodged with an English family during her stay in New York City, but the next traveler to leave a detailed account of New York shared many meals in Dutch-American households. Pehr Kalm, a Swedish naturalist, was sent to North America by the Swedish Academy of Sciences for the purposes of observing and recording the natural history of the continent. The Academy wished to discover plants and animals that could be suitable to Sweden's climate and considered North America a likely source. Kalm spent the years 1748 to 1751 in eastern North America, afterwards returning home to write several books about the people and land. Although his travels were after the period covered by this study, his observations, cautiously applied, are relevant to the earlier period.

Kalm was eloquent on the subject of New York City oysters (Kalm 1987:125-127). New Yorkers used rakes (probably similar to modern Long Island clam rakes) to pull the shellfish up from their beds. In addition to immediate consumption in the City, oysters were pickled and sent to the West Indies in "glass or earthen vessels ... well stopped to keep out the air," or were fried in butter, covered with butter and potted as the pickled variety (Kalm 1987:126). Although New Yorkers told Kalm that oysters were best in months with an "r" in the name, some poor people reportedly lived all year long on oysters and bread alone

(Kalm 1987:126). Lobsters were still available in the New York harbor in the mid-eighteenth century, but Kalm attributed their presence to a ship-wrecked load of New England lobsters (Kalm 1987:127). Clams were dug on Long Island and air dried, then shipped to Albany for the Indian trade (Kalm 1987:129). Clams were also commonly eaten in the City, either baked in their shells, stewed in butter, boiled in soups, or served on a platter with steak (Kalm 1987:129).

In Kalm's extensive discussion of New York City's long distance trade, he mentioned many foods sent to the West Indies (flour, grain, biscuit, beef, pork, butter, and fish), but the only foods imported into the City from distant areas, by his account, were rice from South Carolina and wine from Madeira (Kalm 1987:134-136). Kalm was thus probably unaware of or forgot to mention the import of, at least, sugar and rum from the West Indies. Foodstuffs were brought into the City by "the country people" twice a week and sold at the markets (Kalm 1987:136). Cattle were still kept in the City, because Kalm complained of the mosquitos that accompanied them when they were brought home in the evening (Kalm 1987:141). For the first time, coal from England was noted as an import and was said to be used both for kitchen fires and heating since it was cheaper than wood (Kalm 1987:135). It is probable that New York's extensive exportation of wood caused this situation, and Kalm explicitly stated that food prices were high because large quantities of flour, grain, and other foods had been sent to the West Indies and New England (Kalm 1987:627).

From discussions with old inhabitants of Delaware and Pennsylvania, Kalm recorded that they all had noticed a great decrease in numbers of wild birds and fishes from the time of their youth, and he correctly attributed this decrease to over-exploitation and environmental changes caused by the Europeans (Kalm 1987:152-154). Similar

changes had probably taken place in New York by this time, and elderly New Yorkers told Kalm of the diminution of oyster quantities (Kalm 1987:154). It is thus likely that wild foods were less available in the mid-eighteenth century than they had been in the seventeenth.

Kalm described the food of Dutch-Americans at Albany and at Saratoga: their daily meals consisted of bread, butter, cheese, meat (types were unspecified but they were said to be "very fond" of it), porridges, milk, buttermilk, tea, cider, beer and salads (Kalm 1987:344, 602). With the exception of tea and cider, these were all common seventeenth century Dutch foods. Tea was drunk at breakfast with bread and butter as well as in the afternoon about three o'clock. He observed that "pudding or pie, the Englishman's perpetual dish, one seldom saw among the Dutch, neither here [Saratoga] nor in Albany" (Kalm 1987:603).

Kalm noted that Dutch-Americans at Albany were much more retentive of their European language and identity than those of New York City. In New York City, especially among younger Dutch-Americans, anglicization was evidenced by the common use of English, increased membership in the English church, and a general "beginning ... to change manners and opinions" (Kalm 1987:142, 626). If Kalm was correct in his assessment, it should be possible to find evidence for a change in foodways in New York City during the middle decades of the eighteenth century. However, except for landfills, there are, at present, very few archaeological deposits from the mid-eighteenth century in New York City.

One food that was common to Dutch-American New Yorkers and Albanians alike was sappaan, a thick porridge made of corn meal that was "the perpetual evening meal" (Kalm 1987:602-3, 629). It was served in the following manner: the porridge was put into a large dish and a well made in the center into which milk or buttermilk, often sweetened with sugar or syrup, was poured; each person ate from this

dish and more milk was added as needed. The sappaan was followed by bread and butter, sometimes with cheese or cold meat; if any porridge was left over it was boiled the next morning with more milk. During his last stay in New York City, Kalm lodged with a Dutch family and was served sappaan every night (Kalm 1987:629). This family's mid-day meal consisted of one or two dishes, most often meat cooked with turnips or cabbage -- a typical simple Dutch hutspot. Kalm lodged with families of modest means, since his funding was limited, and his foodways information can be best applied to households of low to middling economic status.

MARKETS AND MUNICIPAL REGULATIONS

Pehr Kalm recorded the existence of a twice weekly market during the mid-eighteenth century, by which time the market had already existed as a municipal institution in New Amsterdam/New York for over a hundred years.

In the Netherlands, as noted in Chapter 3, food was purchased in markets that had been established to sell meats, fish, or fruits and vegetables, or it was sold door-to-door by peddlers. Merchants in shops sold staples like flour and sugar, but fresh and perishable foods were provided to town and city dwellers through the established markets and their vendors. In New Amsterdam, European farmers and Indians brought their foodstuffs into the city for sale on an informal, unregulated basis until the late 1640s when market times and locations began to be regulated by the municipality, modeled on the customs and laws of the Netherlands. Before this time, the open ground before the Fort had been used as an informal market field (De Voe 1970[1862]:35). People could also have obtained provisions, including fresh meat, from the Dutch West India Company's store (De Voe 1970[1862]:15-17).

The earliest reference to markets in the Laws and Ordinances of New Netherland was on March 10, 1648: the

Director-General and his council established a weekly market day (Monday) where purchases could be sold "from a Booth ... by the ell, weight, and measure, wholesale and retail" (Stokes 1915:vol 2, 344). No location was specified and it is unlikely that any market building was constructed. This arrangement was apparently not satisfactory, for eight years later, in September 1656, the council decreed that Saturday would be Market day on the Beach or Strand, near the end of the Herren Gracht²⁹, "at or around the house of Mr. Hans Kierstede" (De Voe 1970[1862]:36). This measure was taken for the "relief of the farmers who often come to the strand with divers articles, such as Beef, Pork, Butter, Cheese, Turnips, Carrots, Cabbage, and other country produce" but whose customers, since most did not live in sight of the beach, were not aware of their arrival (Stokes 1915:vol 2, 345).

In the latter part of the century, produce came into the City from Long Island, New Jersey, and the Lower Hudson Valley, but it is likely that most foodstuffs at mid-century came from Long Island or further north on Manhattan Island, so the East River beach was a convenient meeting place for farmers and customers. This market was most likely an open-air market, similar to vegetable markets in the Netherlands. When pilings were placed along the entire shore up to Wall Street in 1658, the market may have moved to the area in front of the Fort, since the Burgomasters resolved in 1659 to erect a meat market near the Fort. This meat market was to be a substantial tile-roofed building equipped with a chopping block (Stokes 1915: vol 2, 345). A second market was constructed under the English on the East River in 1677 at Old Slip (Stokes 1915: vol 2, 346). In 1701 this latter

²⁹. The Herren Gracht was a canal that drained the swampy area immediately south of the Stadt Huys block. At high tide, it provided access to interior blocks for small boats. Present-day Broad Street follows its path.

market house was rebuilt, at the expense of the neighborhood, and in 1720 it was finally removed to Coenties Slip³⁰ (Stokes 1915: vol 4, 494).

The next development of the markets came under the administration of Governor Dongan. As part of his 1683 examination of the City's institutions, he made note of the benefits to the populace of a regular market and sanctioned the existing markets and market houses provided that they sold goods only on Wednesdays and Saturdays and only in the market house itself not from "any vessel, boat, or canoe" (Stokes 1915: vol 4, 327). Meat, however, was to be sold every day of the week, except Sunday. These regulations were reversed in 1686 when "butcher's meat and all flesh whatsoever" could be sold on Tuesday, Thursday and Saturday, but "fish, butter, cheese, eggs, poultry, fruit, roots and herbs" were sold every day of the week (Stokes 1915: vol 4, 328). Forestalling -- i.e., buying goods, usually for resale, from the docks or streets before they got to the market house -- was expressly forbidden.

In 1691, butchers were directed to keep supplies of meat in both markets, but country people could go to either market as was convenient to sell their eggs, butter, and poultry, while fish, herbs, fruit, roots, and other products were to be brought "unto the Dock by the City Hall" (Stokes 1915: vol 4, 365). A third market house was constructed at this location within the next year. During the filling of the property that became the 7 Hanover Square site, this market house most probably contributed to the materials dumped into the landfill, as it was located adjacent to the Hanover Square Block. Results of the dumping of market refuse into the landfill will be discussed in Chapter 6.

The next major reassessment of the City's institutions

³⁰. Coenties Slip was at the northern boundary of the Stadt Huys block.

took place in the early 1730s under the administration of Governor Montgomerie. In 1731 a set of new laws and ordinances governing markets was promulgated: since the markets were supplied with foodstuffs transported by water and since "tides, winds, and weather" made set market days problematical, markets would be held every day except Sunday "from sun rising to sun setting" (Stokes 1915: vol 4, 525). The regulations specifically forbade "hucksters or retailers," who bought food for resale, from entering the markets before noon (Stokes 1915: vol 4, 525). At this time there were five markets in the City: at the end of Broad Street, at Coenties Slip, at Old Slip, at the end of Wall Street, and at the end of Maiden Lane (Rothschild 1990:57). All were on the East River. Kalm had written of a twice-weekly market (see above), and it is possible that custom or seasonal conditions limited the days that an individual market was open.

Along with the markets for purchase of daily foodstuffs, the city established an annual Cattle Fair that was held from late October through the end of November. This was the traditional fall slaughtering time when Dutch town-dwellers purchased animals for winter and spring consumption (see Chapter 3). "Steers, cows, sheep, goats, hogs, bucks, and such like" were to be offered for sale in the market field by the fort (De Voe 1970[1862]:38). The 1659 proclamation notifying the populace of the establishment of the Cattle Fair was translated into English and sent to towns along the Long Island sound in Connecticut and Long Island. Clearly, there was traffic in domestic animals between the Dutch in New Netherland and the English in New England and Long Island in the 1650s and later, although an earlier (1642) law had prohibited the sale of English cows and goats within the colony (De Voe 1970[1862]:26-27). The earlier law had been designed to increase the value of Dutch farmers' breeding stock.

In summary, between 1648 and 1731, the City government took steps to ensure that the inhabitants would have a regular supply of meats, fish, poultry, fruits, and vegetables through the establishment of markets. Municipal markets were not a common feature in the English colonies during this time period, and New Amsterdam/New York's market system was based on Dutch models. Over time, the markets had expanded from once a week at one place to six days a week at up to five separate locations. The City required that the weights and measures used by the market vendors be inspected and stamped for accuracy, but, with the exception of fees charged for slaughtering and bread prices (see below), prices in markets were not regulated, although some attempt was made to keep prices down by limiting reselling.

LAWS AND ORDINANCES REGULATING BREAD PRODUCTION

Bread prices, unlike those of other commodities, were regulated. Beginning in 1657, bakers were required to buy licenses from the City before they could bake and a bread assize (price setting) was established (Stokes 1915: vol 4, 175). It is doubtful if the licensing regulation portion was completely enforced and it was possibly allowed to lapse, because a similar measure was passed in 1661. Nevertheless, beginning in 1657, set prices for bread were established, as was the custom in the Netherlands. The bakers, as might be expected, objected to the bread prices as too low. Bakers sought to increase their profits by making more costly types of baked goods and two years later they were prohibited from baking sweet cakes and other fancy goods. The bakers contended that they needed an increase in bread prices since they were forced to buy grain in beavers but could only sell their products in wampum³¹ (Stokes

³¹ Since there was a shortage of coinage in the colony, beaver skins and Indian wampum became forms of currency.

1915: vol 4, 180). Since beavers were a relatively more valuable form of money than wampum, this meant that the bakers would lose money in their financial transactions, in the same manner that a person changing one country's money for another's can lose on the exchange. Subsequently, in 1659, bread prices were set at sixteen stuivers for a six pound wheaten loaf, twelve stuivers for a six pound rye loaf, and 4 stuivers for a one pound "white" loaf³².

(Stokes 1915: vol 4, 181) The schout was empowered to visit bakers' shops for the purpose of weighing loaves and enforcing established prices.

The first prohibitions against fancy, expensive baked goods had already been passed in 1649 by an indignant Stuyvesant. He castigated the bakers who "through a lust and desire of great profit ... provide the Indians with the best [baked goods]" because the Indians could give the bakers stringed wampum, which the colonists did not have (O'Callaghan 1868:112). The bakers were therefore told not to bake for sale or as presents any "fine bolted or white bread or cakes," but New Amsterdammers could continue to bake or have baked "for their own household, or for grand entertainments, such quantity of white bread as occasion may require" (O'Callaghan 1868:112). The prohibition was not aimed at eliminating a luxury food, but was an attempt to prevent profiteering in desirable items. The bakers preferred to make sweet cakes and cookies because their profit margin was higher on these items than it was on simple bread; but their failure to bake plain bread caused a scarcity of this staple in New Amsterdam. Prohibitions against selling fancy baked goods to the Indians were continued throughout the New Netherland period. The Indians seem to have been eager to obtain bread and other baked

³². "White" bread signified, as it did in the Netherlands, (see Chapter 3), loaves made of well-bolted flour.

goods, an indication that they had altered their foodways after contact with the Europeans.

In March of 1661, when bakers were required to stamp each loaf with individual marks, seven bakers registered marks with the city. Later in that year, two bakers were appointed as "overseers of the bread" whose duties were "to see that the bread is made of good material, proper weight and well baked" (Fernow 1970[1907]:113). With this regulation, the City moved closer to Dutch practices whereby the bakers' guild was responsible for the quality of its members' goods. The overseers spoke for all the bakers when they stated that they could not continue to bake for low prices, and they were granted an increase in prices to twenty-two stuivers for an eight pound wheat loaf, eighteen stuivers for the same weight rye loaf, and five stuivers for a white loaf, provided that they baked no cookies, cracknels or sweet cakes³³ (Fernow 1970[1907]:115). The bakers were not satisfied and again petitioned for an increase; no price increase was granted but they were given permission to bake the prohibited sweets once or twice a week, as long as they had coarse and white bread always for sale (Fernow 1970[1907]:118). Throughout the rest of the century, the Burgomaster's, and later the Mayor's, Court continued to receive sporadic complaints from the inhabitants about the quality and weight of bread and the bakers continued to petition for price increases. Prices were periodically increased according to the prevailing cost of wheat, and probably also in proportion to the complaints of the bakers. The English continued the practice of setting bread prices along with the institution of bread overseers.

Weights for wheat and rye breads were usually set at

³³. Cracknels are defined as "a light crisp kind of biscuit, of a curved or hollowed shape" and "a sort of cake made in the shape of a dish and baked hard so as to crackle under the teeth" in the Oxford English Dictionary.

eight pounds for a "double" loaf, four pounds for a "single" loaf, and two pounds for a "half" loaf. "White" bread however was usually sold in loaves of one pound or less. Small white loaves (large rolls by twentieth-century definitions) were the most common bread portrayed in Dutch still life paintings, and Stuyvesant's specific mention of them in the context of "grand entertainments" (see above) supports their connection with elegant and/or expensive meals.

In 1664, during his preparations for a possible siege of the city, Stuyvesant summoned the bakers of the settlement to give him an account of the available grain stores (Stokes 1915: vol 4, 234). The number of bakers had increased from seven to ten in the preceding three years. By 1685, when bakers were again enjoined to always have white and coarse bread on hand, the number had further increased to twenty-four, five of whom were women (three were widows; Stokes 1915: vol 4, 335). These twenty-four bakers were each assigned a day of the week on which they were required to bake at least one batch of white and coarse bread.

Bread was the subject of numerous municipal laws and regulations because it was the single most important food for most people. The majority of bread was purchased from bakers rather than baked in the home, especially in poor and middling households.

LAWS REGULATING BUTCHERS

Under the Dutch, the price of meat was not regulated but, beginning in 1656, the slaughtering of animals for sale was restricted to licensed butchers and the prices that butchers could charge for their services were set (Petersen 1967[1917]:57; De Voe 1970[1862]:35-37; Fernow 1970[1907]:163). At the same time, an excise tax was instituted for each slaughtered animal and the office of

"farmer" of the slaughter excise was established. This office was sold to the highest bidder who was then authorized to issue permits and collect a fee from the owners for every animal slaughtered. The actual butchering of animals was to be done only by "sworn" butchers who had taken the City's oath of allegiance. The fees that the butchers could charge were set by the municipal government, with the highest price paid for an ox or cow, approximately a quarter that price for a calf or pig, and an eighth for a sheep or goat (De Voe 1970[1862]:37). The butchers, like the bakers, periodically petitioned the Burgomasters to increase their fees, and their requests were usually granted. Unfortunately for archaeological research, no methods of butchering or dismemberment were included in the regulations.

Under the English in 1676, slaughtering activities were officially banished from the City to the lands outside of the wall; the area along the East River just above the wall became the site of the slaughter house (Petersen 1967[1917]:62; De Voe 1970[1862]:55). The river front was the preferred location for slaughtering because it provided easy access to cattle ferried across from Long Island, and because the East River was a convenient dumping ground for butchers' waste. For the rest of the century, the Common Council continued to pass ordinances forbidding slaughtering within the City's limits, perhaps an indication that the regulations were not strictly observed. In 1696, the slaughter house was removed farther upriver, to the end of Pearl Street, near the present South Street Seaport, but by 1720 the City had expanded into this area, and the location of the public slaughter house was moved even farther north along the shoreline (Petersen 1967[1917]:63; De Voe 1970[1862]:80-81). New Yorkers who lived in the Out Ward (the sparsely settled area north of the main part of the City but still within the City's jurisdiction) were

permitted to slaughter animals but only for their own use (Petersen 1967[1917]:63).

Butchering of animals was thus not a casual activity in New Amsterdam and was not usually undertaken by ordinary citizens. In early New York City, most butchery activities were confined to the public slaughter houses and butchers' meat was sold in the markets. Slaughtering under the English was regulated by the City for the purposes of controlling the attendant smell and garbage. The Dutch, on the other hand, seem to have used the slaughter excise as a means to raise revenue and regulated the fees that butchers could charge as part of their supervision of municipal provisions.

IMPLICATIONS FOR ARCHAEOLOGY

The documents discussed here indicate that the diet of the inhabitants of New Amsterdam/New York City changed from the mid-seventeenth to the mid-eighteenth centuries. Probably the greatest differences were the gradual decrease in the quantity, and probably variety, of wild foods, and the incorporation of maize as a staple food. The decrease in wild foods should be archaeologically observable. Maize preparation would have required the same artifacts as other cereals, so would not have necessitated the introduction of new artifact forms. Of the foods that were commonly part of the diet, the only archaeologically visible remains expected would be mammal bones, some fish and bird bones, shells, maize cobs, and seeds. The mammal bones would be primarily table and cooking refuse, except in landfill contexts where butchering refuse would also be present.

There are some suggestions about the relative importance of foods: based upon the attention given to baked products and wheat in general, bread was the most important food, followed by milk products. Neither of these foods would be preserved in the archaeological record, and, since

most bread was not baked in the home, few artifacts used in the preparation of baked goods would be deposited with household refuse. Dairy-related artifacts, such as milk pans and butter molds, were probably common in homes and might be recovered.

In the following chapter archaeological faunal and ceramic collections from three sites in Lower Manhattan and three sites in Amsterdam are examined in order to determine whether changes in foodways during this time period are visible in the archaeological record.

CHAPTER 6: CERAMICS AND BONES FROM ARCHAEOLOGICAL CONTEXTS

INTRODUCTION

In the preceding chapters, documentary data pertaining to Dutch and Dutch-American foodways have been presented. The following chapter discusses archaeologically-recovered ceramics and faunal remains from nine deposits at three sites in Lower Manhattan and ceramics from four deposits from three sites in Amsterdam. The purpose of examining material from these deposits is to compare the archaeological evidence to the conclusions reached from the information in the documents. The Lower Manhattan sites are the Stadt Huys Block (excavated by Nan Rothschild and Diana Rockman Wall), the Broad Street site (excavated by Joel Grossman), and 7 Hanover Square (excavated by Rothschild, Wall, and Arnold Pickman). The Amsterdam material is from the Taanstraat, Waterlooplein and Oostenburgermiddenstraat sites (all excavated by Jan Baart of the Amsterdam Historisches Museum).

The only artifact class to be examined is ceramics; artifacts made of metal, wood, and glass are not included. This is because metal and wooden artifacts, though used extensively for food preparation, service, and storage, are very poorly preserved in most urban archaeological contexts. Neither type of material is likely to survive if deposited in the ground. In addition, many metal pots, pans, and tablewares were recycled by melting them down for other uses. Most glass from pre-nineteenth century archaeological collections, although generally in a better state of preservation than wood or metal, is too fragmentary to allow for reliable quantification of minimum numbers of vessels; and, unlike ceramics, forms cannot be inferred from the type of material used to manufacture a vessel. For example, while it is possible to say that a group of thin, clear pieces of glass most likely come from wine glasses or

tumblers rather than bottles, it is often not possible to determine the number or specific shape of the vessels represented by these pieces. However, a group of ceramic sherds, even though fragmentary, can, based on paste and surface treatment, yield information about the types of ceramic vessels present in the behavioral assemblage that was the source of the archaeological deposit.

Before the archaeological assemblages can be described, the types of ceramics available to the people of New Amsterdam/New York must be reviewed in order to provide the background against which changes in artifact use can be seen. Temporal differences in archaeologically-recovered ceramic assemblages can be due to advances in ceramic manufacturing technology or changes in distribution of ceramics as well as to changes in how vessels were used for food preparation and service -- i.e., changes are affected by availability as well as by individual choice. It is thus necessary to briefly discuss developments in the Dutch, and other European, ceramic industries during the seventeenth and early eighteenth centuries to clarify expectations about what ceramics would be used in the Dutch kitchen and on the table, and, by extension, what wares would in turn be available to Dutch-Americans. Deetz (1977:50) has noted that "[Ceramics] presence in the foodways complex ... is dictated by four factors: availability, need, function, and social status." Availability depends upon what was manufactured and how it was distributed. Need and function are prescribed by the kinds of foods that were cooked and how they were served. In the case of the Dutch in the New World, need and function were determined by what they had been accustomed to in the Netherlands and by changes in their diets in the New World. Social status of ceramics is based on price, scarcity, and fashion. Of all these factors, availability of specific artifacts is the most basic one that must be established before the others are

taken into consideration. The next section of this chapter will therefore discuss the types of ceramics that were manufactured and/or sold in the Netherlands during the seventeenth and early eighteenth centuries. At the present time the question of which of these ceramics were exported to North America can only be answered through archaeologically recovered material, since the available documents do not mention specific ceramic ware types or forms. Thus the following discussion includes some ceramics that have not yet been recovered from New York City sites but that might be found in future excavations. The discussion of Dutch ceramics will be followed by a brief description of English wares of the period. The ceramic and faunal assemblages will then be reviewed.

SEVENTEENTH AND EIGHTEENTH CENTURY DUTCH CERAMICS

Ceramic manufacture and use in the Netherlands at the start of the seventeenth century combined medieval traditions with recent technological developments and changes in production. Coarse earthenwares, (made from minimally-worked clays that fire at a relatively low temperature and when fired have grainy bodies), were still produced in small craft shops by potters who were not always full-time craftsmen and whose pots were distributed locally. Refined earthenwares, (also made from low-firing clays but with finer-grained bodies, few inclusions, and temper that is not visible to the naked eye), on the other hand, had begun to be produced in larger, specialized potteries and were exported to customers through non-local trade networks. Coarse earthenwares were red and buff/white bodied vessels used for food preparation, consumption (by those who could not afford more expensive vessels), and storage. Refined earthenwares were tin-glazed food consumption vessels (delftware) made in small factories in Dutch towns, especially Delft, Haarlem, Amsterdam and Rotterdam (Van Dam

1982:88-90). In addition to the manufacture of local earthenwares, stonewares and porcelains were imported from Germany and the Orient, respectively. Stonewares were usually in the form of mugs, jugs, or bottles and, less frequently, storage jars; porcelains were almost exclusively teawares.

COARSE EARTHENWARES

Coarse earthenwares used in the Netherlands were made of both red and buff/white firing clays. The majority were made for local consumption in small craft potteries operated by families (Baart et al. 1986:149). Vessels manufactured throughout the northern Netherlands and the Lower Rhineland in Germany shared form and paste characteristics; there was a strong regional coarse earthenware tradition lasting from the thirteenth through the seventeenth centuries (Hurst, Neal and Van Beuningen 1986; Gaimster 1988). Although most of these coarse earthenwares were made for local markets, some vessels were distributed throughout the Low Countries and western Germany and were imported into southern and eastern England (Hurst, Neal and Van Beuningen 1986:130, 136; Gaimster 1988:154). The existence of Dutch earthenwares in England has only recently begun to be recognized by archaeologists.

The majority of coarse earthenwares had varying shades of red bodies covered by lead glazes that ranged in color from dark yellow to greenish brown, but some were made of buff/white-firing clays and had green lead glaze on the exterior and yellow glaze on the interior, or were entirely glazed with either green or yellow (Hurst, Neal and Van Beuningen 1986:130). The buff/white wares were less common than the redwares, since most clays found in the Netherlands fire red (Hurst, Neal and Van Beuningen 1986:133). Both the red and buff wares were most commonly glazed on both surfaces, except for the bases of most food preparation vessels, which were left unglazed. Most vessels were

undecorated, but some redwares, especially those made in the province of North Holland, were decorated with trailed slip and splotches of green. This slipware was manufactured from the late sixteenth to the early eighteenth century, and has been found on sites throughout north-west Europe and Britain (Hurst, Neal and Van Beuningen 1986:154; Gaimster 1988:160). Some slip-decorated vessels did not have trailed slip, but instead had interiors entirely covered with a buff/white slip under a green-tinted lead glaze.

The most common seventeenth century vessel forms¹ were grapen, pots used for cooking and food consumption (Baart et al. 1977:241; Hurst, Neal and Van Beuningen 1986:130-135). Grapen were bulbous bodied with three feet and one or two ear handles attached at the rim and upper body (Figure 6.1 and Plate 6.1). Within the overall category of grapen are small- to medium-sized vessels with, generally, one handle and occasionally a small pushed-out spout (Janowitz, Morgan and Rothschild 1985:33; Hurst, Neal and Van Beuningen 1986:133). Larger grapen with two handles are referred to as kookpotten (cooking pots) by some authors (Baart et al. 1977:250; Hurst, Neal and Van Beuningen 1986:130). Vooraadpotten (storage pots) are similar but even larger vessels with, sometimes, a nozzle spout; according to Baart, they are used for storing foods (Baart et al. 1977:250). De Kleyen (1977:42-43) calls small grapen with nozzles roompotten (cream pots). Beginning in the last quarter of the seventeenth century and continuing through the

¹. The following definitions are a compilation of the terms used by Dutch archaeologists and museum curators, but do not follow any one author's usage. There is little agreement or consistent nomenclature in the published literature, and there is no Dutch equivalent of the typology formulated for British seventeenth century forms by Beaudry et al. (1983). For the most part, the terms follow the usage in Janowitz, Morgan, and Rothschild 1985, but some were changed or added after discussions with Ab Lagerwijn of the Amsterdam Historical Museum in 1987.

eighteenth century, a taller wide-mouthed form of grape with a small pouring lip on a straight rim, called a perren pot, became common (Ab Lagerweij, personal communication 1987). Small pots of this shape are apparently called melkkoker (Baart et al. 1986:103). All of the grape varieties were most common in red earthenware but were also produced in buff/white earthenware. They were infrequently decorated with slip.

Figures 6.1 and 6.2

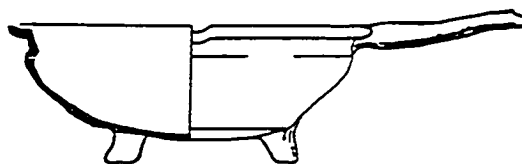
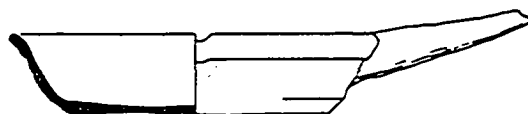
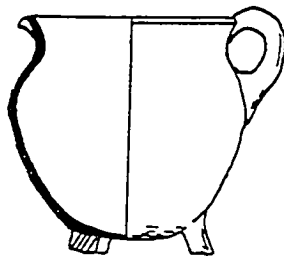
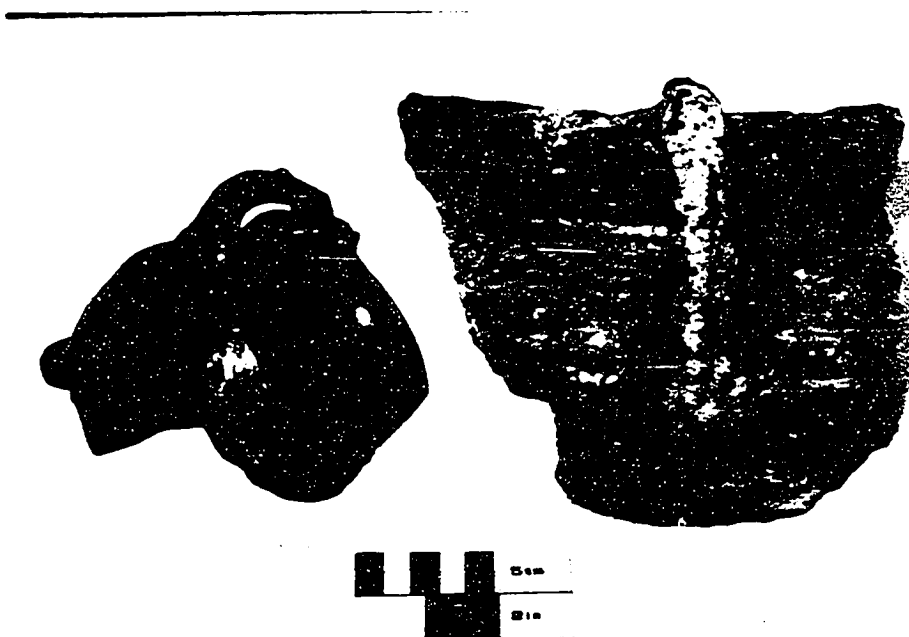


Plate 6.1

Grape and kookpot from Assemblage 9 (Hanover Square).



Grapen of small to large sizes were illustrated in genre paintings. Most of the illustrated grapen, even some large ones, were depicted as vessels used for food consumption. As noted in Chapter 3, people were shown eating from small grapen in "An Old Woman Praying" by Maes, and from large grapen or kookpotten in Dou's "Woman Eating Porridge", among others. Grapen were also shown in food preparation contexts, as in Vermeer's "Maid Servant Pouring Milk". Metsu's "The Sick Child" included a small grape with a spoon and it can be deduced that this vessel was used both to prepare and eat the food it contained. Grapen were thus used to prepare and eat foods, most probably liquid or semi-liquid foods like soups, stews, or gruels.

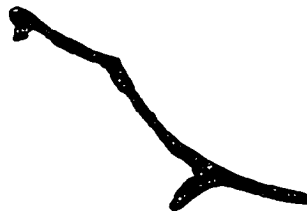
A testje was a grape-like form that had a triangular shaped mouth. These pots were common in genre paintings where they were shown holding smoldering peat; they were either inside small wooden boxes that were used as foot warmers or atop tables where they were used to light tobacco in white clay pipe bowls. When they were shown on tables, they were generally accompanied not only by tobacco pipes but also by beer glasses or jugs. They are not, strictly speaking, artifacts used in foodways, but they are included here because they were portrayed in many of the paintings discussed in Chapter 4 and because, if broken, they cannot always be distinguished from grapen.

The second most common coarse earthenware type was the skillet (steelpan or bakpan) (Baart et al. 1977:250; Hurst, Neal and Van Beuningen 1986:136). Skillets were relatively shallow vessels with long "celery-shaped" handles, small pouring spouts at right angles to the handles, and either a flat base or a rounded base with three feet (Figure 6.2). As far as can be ascertained from the available literature and from the examination of excavated sherds, skillets were only made in red earthenwares and were never decorated. Skillets were not common in the genre paintings, but, as

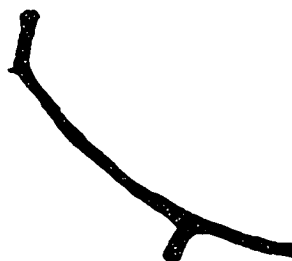
noted in Chapter 4, they were seen in the Covijn kitchen scene where a woman poured melted butter, or other liquid sauce, from a small skillet over a fish, and in the Brouwer "Pancake Baker" in which a man fried pancakes in a large skillet. In the literature, they are classified as food preparation vessels (Baart 1977:253), and the charring and wear patterns on excavated vessels support this interpretation, since their exteriors (which are usually unglazed), are charred and their interiors have stir marks. Of course, it is quite possible that they were also used for food consumption.

According to Hurst et al., cooking pots, skillets and dripping pans were commonly exported to England (Hurst, Neal and Van Beuningen 1986:136). Dripping pans, shallow rectangular vessels with a central well, were designed to be placed under roasting spits to catch dripping fats and juices. The pan illustrated in Hurst et al. (figure 61, no.201) apparently has a "celery-shaped" handle similar to that on skillets. None were identified in the genre paintings.

Figures 6.3 and 6.4



Figures 6.5 and 6.6



Dishes (schalen) were large, fairly shallow, round vessels, with "hammer-headed" rims; they were usually without handles (Figure 6.3) (Hurst, Neal and Van Beuningen 1986:150). They were generally made in redware and could be either plain or slip decorated (Hurst, Neal and Van Beuningen 1986:150-159). Their profile was distinctive but it can be confused with that of brimmed bowls (Figure 6.4) if sherds are small; as defined here, bowls were deeper than dishes, but depth cannot always be determined for partial vessels. Seventeenth century bowls were made in two basic forms: those with a sloping brim and a hammer-headed rim and those with a "simple upright rounded rim, [and] vertical collar supporting two horizontal loop-handles" (Hurst, Neal and Van Beuningen 1986:154). Both types had sloping sides and, usually, rounded bases with a footring (Figure 6.4 and 6.5). Small bowls of the latter type are called bakjes (Figure 6.6) and could have one or two loop handles either at the rim or at the base of the collar (Baart et al. 1977:248 and 261). Small handled bowls are also referred to as papkoms (porringers) by some authors (Reynaud n.d.:48, for example), but the term papkom or porringer will be reserved here for small bowls of refined earthenware (faience) customarily with flat, elaborate handles made in imitation of silver forms (Reynaud n.d.:46). Bowls and dishes were usually made in redware and were often slip decorated.

It is sometimes difficult to distinguish between dishes and bowls depicted in genre paintings, since the perspective often does not allow the depth of the vessel to be seen. In any case, vessels that are either dishes or large bowls were shown in genre paintings in the contexts of food service and preparation. In Adriaen van Ostade's "Interior of a Peasant's Cottage", for example, a dish or bowl held bones left from a meal. In De Hooch's "Woman and her Maid in a Courtyard" the maid was kneeling on the ground and scaling

or filleting a fish that rested in a dish. Pictures of slaughtered oxen or pigs often included a dish on the floor beneath the hanging carcass to catch dripping blood.

Bakjes were shown in use for food consumption. In the Van Ostade interior, for example, a boy was seated at a low table or bench eating from a bakje with a spoon. Another peasant interior ("Boerenmaaltijd" -- literally farmers's meal time), by Van Buesem showed a man and three children grouped around a table on which were a large bowl and a bakje. The contents were indistinct, but there was a spoon in the bakje and the man and at least one of the children held spoons. The large bowl in this painting had three lobed feet and two loop handles.

Colanders were another common form and were made in two shapes: a deep form (vergiet) shaped like a bowl (Figure 6.7); and a shallow form (druipschaal) shaped like a dish. Both forms appeared in paintings in the context of food preparation where they were used to rinse and/or drain fish, fruits, vegetables, or mussels. Mussels were also served on flat colanders as in Van Mieris's "The Peasant Inn." Colanders were usually made in undecorated redware, but the Museum of the City of New York formerly had a white delftware druipschaal on exhibit.

Figure 6.7



Pitchers, jugs, plates, and mugs were also made in coarse earthenware bodies (see Glossary for definitions) but they were less common than the above vessels in both archaeological collections and in genre paintings. Coarse earthenware pitchers, jugs and mugs appeared in paintings with "peasant" titles (see Chapter 4), and they were often hung from hooks on the wall when not in use. One is also used by the woman in Vermeer's "Maidservant" to pour milk into a kookpot.

Chamber pots of red or buff/white coarse earthenware, glazed on both surfaces, are found in archaeological collections. When they were portrayed in paintings, it was always in peasant, peasant tavern, or brothel interiors; more prosperous interiors were furnished with chamber pots of metal or delftware.

Fireguards (vuurklok), were objects that seem to have been unique to the Dutch/Rhineland area. They were made in both full-round and half-round forms and were placed over a fire at night to help keep coals alive until morning (Hurst, Neal and Van Beuningen 1986:155, pl. IX). The full-round ones were for fires built in the middle of rooms while the half-round were for fires made in hearths set against a wall (Jan Baart, personal communication 1987). Fireguards were often elaborately decorated with slip trailing and sprigging and are relatively common in Amsterdam archaeological collections.

REFINED EARTHENWARES

After the coarse red and buff/white wares, the most common type of ceramics found in Dutch archaeological collections and inventories was delftware (Baart 1983; Thijssen 1985; Baart et al. 1986). The term "delftware" is the most widely-used English name for a group of refined earthenwares with soft, fine grained, buff-colored bodies covered on all surfaces with a lead-based glaze to which tin

oxide has been added. The glaze is very thick and opaque and does not bond well to the body so is subject to flaking. Nevertheless, the glaze makes an excellent background for decoration in cobalt blue or other colors. Tablewares, (plates, chargers, bowls, bottles, and other serving vessels), chamber pots, and ointment pots and pharmaceutical jars were the most common forms made in delftware. Within the group of delftware there are two types of wares, manufactured at different times and differentiated by body, glaze, and decorative characteristics. At a 1983 symposium in the Netherlands, the assembled ceramic historians agreed to call the older type "maiolica" and the younger "faience" (Hurst, Neal and Van Beuningen 1986:120).

The technique for manufacturing maiolica was introduced into the Southern Netherlands in the early sixteenth century by potters from Italy, where the ware had been produced since the thirteenth century (Neurdenburg and Rackham 1923:22; Van Dam 1982:88, Wilcoxon 1987:57-58). Maiolica was tin-glazed on the face but the back had only a lead glaze. The bodies were relatively thick, and plates and chargers had a wide, flat foot ring, often pierced for hanging. Maiolicas were not fired in saggers, which would protect them from direct flames, but instead were placed in the kiln on small supports and the vessels separated from each other with three pronged proenen that leave distinctive scars on the faces of vessels (Neurdenburg and Rackham 1923:12-13; Hurst, Neal and Van Beuningen 1986:120; Wilcoxon 1987:60). Bodies of maiolicas can be buff, pink, or gray and the pinker the body the greater the percentage of local red-firing clays in the paste (Wilcoxon 1987:59). Local clays in the northern Netherlands, as noted above, are too coarse and dark-colored for the successful production of tin-glazed wares. Dutch potters imported lighter colored clays, which were mixed with local clays, from the Tournai region in the Southern Netherlands, the Rhur and Rhine areas

in Germany, and from England (Knowles 1913:44; Neurdenburg and Rackham 1923:9; Archer 1973:6; Wilcoxon 1987:59).

The immigrant Italian potters were concentrated in Antwerp during the first half of the sixteenth century. The upheavals accompanying the rebellion of the northern provinces and the closing of the Scheldt River, (see Chapter 2), caused many craftsmen to leave Antwerp. Some maiolica potters went to the northern Netherlands and some went to England, carrying their pottery making traditions with them. The city of Haarlem had a well-established industry before 1580 (Neurdenburg and Rackham 1923:21), and Amsterdam, Delft and Rotterdam each had several potteries manufacturing maiolicas by 1620 (Van Dam 1982:88; Hurst, Neal and Van Beuningen 1986:119; Wilcoxon 1987:58). Decorations on vessels at this time reflected the older Italian/Flemish tradition as well as a developing northern Netherlandish style of decoration (Neurdenburg and Rackham 1923:24; Van Dam 1982:88-89; Wilcoxon 1987:62). Colors used on the white background included blue, yellow, orange, purple, brown, and green.

Faience, which had a finer, lighter-colored, and thinner body than maiolica, and which was tin-glazed on both surfaces, began to be manufactured in the northern Netherlands during the second quarter of the seventeenth century (Van Dam 1982:89-91). By the 1640s, faience had begun to replace maiolica, and by 1660 the manufacture of maiolica had ceased, except in the province of Friesland where it continued into the nineteenth century but was confined largely to the local market (Van Dam 1982:90-91; Wilcoxon 1987:67). The impetus for the development of faience was the introduction of large quantities of Chinese porcelain to the Dutch market during the second and third decades of the seventeenth century. As Wilcoxon (1987:67) notes, Dutch merchants took advantage of consumers' desire for Chinese porcelain in two ways: they imported, through

the Dutch East India Company, as many pieces as they could from China for sale to those who could afford it; and, for the larger market, they invested in the manufacture of faience, which closely imitated the appearance of porcelain without its cost.

The designs on faience, unlike the Italian/Flemish or Netherlandish motifs on maiolica, were overwhelmingly oriental (Plates 6.2 and 6.3). Italianate and Dutch motifs were used occasionally on faience but these vessels were rarely exported outside of the Netherlands (Wilcoxon 1987:68). Most porcelains imported from China in the first half of the seventeenth century were decorated in underglaze blue, and faience decoration imitated blue porcelain. Blue decoration remained popular throughout the century, but non-oriental polychrome designs began to be produced during the last quarter of the century. In addition, plain white vessels began to appear at mid-century and were in the majority by the turn of the century (Van Dam 1982:88-92; Baart et al. 1986:149; Wilcoxon 1987:68-69).

Faience vessel forms for the most part were derived from maiolica forms but were lighter and more delicate. Plates, especially, were thinner bodied and had small footings in imitation of Chinese vessels. Some faience forms directly copied oriental forms. Bowl forms in particular departed from redware and maiolica prototypes and closely copied Chinese forms (Wilcoxon 1987:59). In the latter part of the century when tea and coffee drinking began to be popular, cups and saucers in Chinese forms were also made. Faience bottles, on the other hand, were made in forms that copied those of German stonewares.

Plate 6.2

Faience plate with blue Oriental-style painting. From the Barclay's Bank site but similar vessels are in the assemblages discussed here. Photo by Rob Tucher.

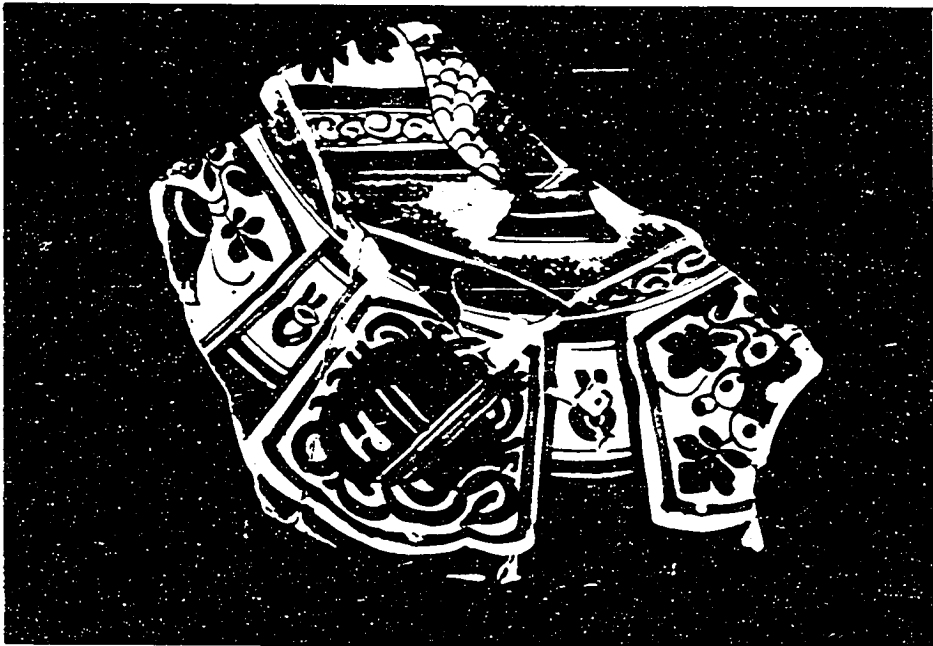


Plate 6.3

Faience plate with blue Oriental-style painting with tulips in the panels. From the Barclay's Bank site but similar vessels are in the assemblages discussed here. Photo by Rob Tucher.



The majority of maiolicas had been produced in small craft potteries by potters who often also made redwares, but most faience was made in pottery factories by workers who specialized in various aspects of its production. Some workers were responsible for forming vessels, others applied glaze, and others painted decorations (Neurdenburg and Rackham 1923:33-34; Van Dam 1982:88-90; Jan Baart, personal communication 1987). Redware and maiolica potters were apparently rarely members of the artists' Guild of Saint Luke (which regulated prices and imposed quality standards), but faience potters were usually Guild members, an indication that production and distribution of the wares was organized differently. Some new technologies were adopted, specifically the use of molds to form various vessels and the practice of firing in saggars (Van Dam 1982:90). Vessels were stacked in saggars using small supports that left narrow oblong scars on the underside of rims. In the last half of the seventeenth century, faience factories became increasingly large and specialized and were often owned by investors who were not potters (Neurdenburg and Rackham 1923:8, Van Dam 1982:89-90). Maiolica had been made by craftsmen, but faience was made by workmen who were employed in factories and who were not directly responsible for marketing their wares. These changes in production affected the availability and appearance of refined earthenwares in the following ways: faience was distributed more widely than maiolica; greater numbers of vessels were produced; forms became more standardized; and the faience industry became an important part of the economy of some cities.

Meanwhile, in England, the production of tin-glazed earthenwares was begun by potters from Flanders (the Southern Netherlands) in the late 1560s (Archer 1973:6-7; Noel Hume 1970:105 and 1977:20; Wilcoxon 1987:79). During

the last half of the 16th century and the first decades of the 17th century, as noted in Chapter 2, connections between the Lowlands and England were close and friendly.

Communication between the Netherlands and Southeastern England by sea is easy, and the Netherlands found their closest political ally in Protestant England. As a result of the good geographical and political connections between the two areas, both people and materials moved relatively freely between the two. Archer (1973:6) stated that "it is known that English clay from Norfolk and Suffolk was exported to Holland and that English pot-painters were employed in Dutch factories, while a number of their Dutch counterparts were at work in England." This creates problems for archaeologists because it is difficult to determine the country of origin of many delftware on the basis of either decoration or clays used in their manufacture (Wilcoxon 1987:79).

In addition, large amounts of Dutch-made faience was imported into England. The trade was so extensive that, starting in the 1670s, English potters petitioned for, and received, official bans (the Navigation Acts) on the importation of painted earthenwares (Archer 1973:7, Noel Hume 1970:140-141). It is not known to what extent these bans were avoided or ignored, especially after the assumption of the English throne by William and Mary in 1688, although Noel Hume contended that the prohibitions prevented virtually all European earthenwares from reaching the British-American colonies during the eighteenth century (Noel Hume 1970:141). Even if the laws were completely successful at blocking the import of Dutch-made vessels, Dutch influence on English faience did not immediately cease. Archer (1973:7) summed up the situation as follows: "In any case Dutch delftware [faience] and the presence of Dutch potters in England had a marked influence on English tin-glazed wares throughout the late seventeenth century and

until about 1740." Thus the problem of distinguishing between Dutch and English faience is complicated and is made even more difficult when vessels are incomplete.

NON-DUTCH WARES

In addition to ceramics made in the Netherlands and adjacent regions, foreign products were available to the Dutch. Portuguese and Italian faience, Italian slipwares, German stonewares, Oriental porcelains, and Iberian coarse ware jars have all been excavated on Dutch sites (Thijssen 1985; Baart et al. 1986; Baart 1987; Wilcoxon 1987). However, with the exception of German stonewares, only small numbers of these imported wares have been found on seventeenth century North American sites (Grossman 1985; Wilcoxon 1987; Rothschild, Rockman and Boesch 1987; Louis Berger Inc. 1989).

German salt-glazed stonewares are the most numerous non-local ceramics in the majority of Dutch archaeological assemblages (Baart et al. 1977, Thijssen 1985; Baart et al. 1986). Stonewares were produced in the nearby Westerwald and Rhineland regions of Germany, so were easily obtained by the Dutch. No other continental Western European region had clays suitable for making stonewares, and German potters monopolized the market throughout the seventeenth century. The Dutch were the principal consumers of German stonewares, both for their own use and for trade with other areas (Wilcoxon 1987:73). The English began to manufacture stoneware after 1680, but they did not make much of an impression on the stoneware market until white salt-glazed wares were developed during the second decade of the eighteenth century. Dutch traders continued to carry German stonewares to England throughout the seventeenth and first

three quarters of the eighteenth century² (Noel Hume 1970:283). The majority of German stonewares found on North American sites, even after the end of the New Netherland period, were probably supplied by Dutch traders (Wilcoxon 1987:73).

Salt-glazed stonewares could be decorated with sprigged (small figures made in a mold and attached to a vessel with slip), and incised designs and painting. After 1650, the German potters almost always enhanced their designs with cobalt blue and a purple made from manganese, the only colors that could withstand the intense heat of stoneware firing. Another decorative technique, used by German potters since the sixteenth century and later copied by British potters, was the application of an iron-rich slip to an entire vessel. When exposed to salt-vapor, the slip coagulated into a more or less even mottling. German stoneware bottles pictured in genre paintings included both brown mottled and blue-colored sprigged varieties.

Porcelains from China were imported to the Netherlands by the Dutch East India Company in ever-increasing quantities throughout the seventeenth century. Between the late 1640s and early 1680s, when civil war (at the end of the Ming dynasty), disrupted Chinese porcelain production and trade, most porcelains came to the Netherlands from Japan, chiefly through the East India Company trading settlement on the island of Deshima (Palmer 1976:10; Whate 1981:27). When the city of Ching-te-Chen³ was rebuilt by

². Chinese porcelains and all stonewares were specifically excluded from the restrictions of the Navigation Acts (Noel Hume 1970:140-141).

³. Ching-te-Chen in the Jae-chou prefecture had been a center of porcelain manufacture since the twelfth century. The kilns were destroyed during the Civil War but were rebuilt and reorganized by the Ching emperor K'ang-hsi, who was interested in porcelain manufacture and encouraged innovation and trade. Ching-te-Chen grew under his protection until by 1700 it had a population of one

the first Ching emperor, trade with China resumed, but the Dutch began to lose their dominant position in the Orient to the English. The English Honorable East India Company was chartered in 1708, and by 1725 the English, trading through Indian ports, accounted for 70% of Chinese imports to Europe (Curtis 1979:4).

Iberian-made ollas are a utilitarian ware that is occasionally found on seventeenth century sites. These vessels were made from coarse clay in the form of large jars and were usually unglazed. Those that were glazed had a thin, patchy, pale-green interior glaze. They were primarily manufactured to be used as storage and shipping containers for Spanish and Portuguese products, especially olives and olive oil. However, many of them were reused in colonial homes for storage of a variety of things; Washington, for example, had six in which he kept soap (Noel Hume 1970:144).

ENGLISH SEVENTEENTH AND EARLY EIGHTEENTH CENTURY CERAMICS

Ceramic production in England during the seventeenth century was not as well organized nor was it as much a full-time craft as it was in the Netherlands. English production of tin-glazed wares, which was inspired by immigration of Italian/Flemish potters, has been mentioned above. Except for this ware type, English-made ceramics of the seventeenth century had changed little from those made in the late middle ages and showed distinct regional variations (Noel Hume 1970:102-105). The most common types were redwares with brown, black, green, or yellow colored lead glazes. Some were decorated with trailed slip in a manner similar to Dutch and German vessels. In the North Devon area, a distinctive and well-made slipware type was developed that

million people and three thousand kilns (Mudge 1962:49-50; Curtis 1977:5; Van der Pijl-Ketel 1982:41 ff.).

was exported to the colonies, especially to Virginia and the Chesapeake. This "sgraffito" ware had a red body covered by a white slip through which designs (usually geometric or floral) were incised; the vessel was then covered with an overall yellow lead glaze (Noel Hume 1970:104).

Coarse earthenwares of various kinds were exported to the British colonies in North America, but the wares that have been excavated in New England and Virginia indicate that the particular types of redwares imported depended upon which region or regions of Great Britain had direct trading contacts with particular settlements. For example, both the sgraffito ware and a coarse, gravel-tempered ware also made in North Devon are common in the Chesapeake, but less so in New England. This is probably because the North Devon ports of Barnstaple and Biddeford were active in the tobacco trade, the most important Chesapeake commodity.

Local production of redwares in the British colonies began relatively early in the settlements' lives, especially in the Boston area (Turnbaugh 1983, Barber 1976[1893]). Vessel forms of local redwares copied British styles, but the productions of individual potters can sometimes be distinguished by paste, glaze, or form characteristics (Watkins 1950; Miller 1983; Turnbaugh 1983). In general, the distribution of these locally-made wares was confined to nearby settlements.

As far as can be determined from published New England and Chesapeake archaeological collections (Watkins 1950; Deetz 1973; Miller 1983; Turnbaugh 1983 and 1985; Beaudry et al. 1983; Pendery 1985) and from publications about English redwares (Rackham and Read 1924; Noel Hume 1970; Celoria and Kelly 1973; Kelly and Greaves 1974; Greaves 1976) earthenware skillets were not made by English or English-American potters. Earthenware pipkins were occasionally made but none had the distinctively-shaped rims and handles of the Dutch grapen and their overall profiles were not the

same (Beaudry et al. 1983:34). Earthenware colanders were made by English-tradition potters but, as with the grapen, their rim shapes and profiles were different than Dutch vessels. Thus, the two most common Dutch coarse earthenware forms -- grapen and skillets -- were not English forms and another common form -- the colander -- had a different shape.

During the last quarter of the seventeenth century, potters in Staffordshire began wide-spread production of slip decorated buff-bodied vessels made in a variety of forms (dishes, mugs, porringers, plates, chamber pots, candlesticks, etc.) (Watkins 1947; Noel Hume 1970:135-136). Hollowwares (turned mugs, drinking pots, cups, and chamber pots) were the first forms made; drape mold-made dishes were made later in the eighteenth century. Vessels were decorated with a variety of techniques; one of the most common was layering and combing of slip to give a line effect. Buff-bodied slipware was very common throughout Great Britain and her colonies in the eighteenth century, and American potters imitated this ware's shapes and decoration in red-bodied vessels well into the nineteenth century. It was apparently not imported in any numbers into the Netherlands -- I have not seen any references to it in published Dutch artifact descriptions or observed it in any collections.

At the same time as earthenware potters were starting to produce large numbers of utilitarian vessels, other British potters were learning how to make salt-glazed stoneware. In the 1670s, potters began to produce brown stoneware that imitated Rhenish vessels. British stonewares of the late seventeenth and early eighteenth centuries were not made with the elaborate sprigged, incised and colored designs of the Rhineland but instead had simple iron-oxide slips covering all or the upper halves of vessels. The most common forms made were straight-sided mugs of several sizes;

these continued in production throughout most of the eighteenth century (Noel Hume 1970:112-113).

A more refined, totally white, salt-glazed stoneware was developed shortly before 1720 (the earliest known dated example of this ware, according to Noel Hume (1970:114), is incised "1720"). One early variety had a gray body that was covered with a white engobe so that the overall appearance was the same as the pure white variety, but the vessels with engobe had brown lines around the rims (see Assemblage 7 below). Block molds for casting vessels were developed in the late 1730s after which white salt-glazed stoneware "became the typical English tableware of the mid-eighteenth century" (Noel Hume 1970:115). Molded vessels could have quite elaborate bas-relief decoration (generally around the rim), but earlier vessels were generally plain, although the British had developed a method of painting with polychrome enamels applied over the glaze. Vessels decorated in this manner required a second, lower temperature firing to set the colors. Over-glaze decoration on stoneware was not perfected until the 1740s and was never very common. The technique of incising designs into the body and filling the incised lines with cobalt was another mid-century development (Noel Hume 1970:117 figure 36), but the British used cobalt blue much less freely than the German potters. White salt-glazed stonewares were exported to the Continent and appear in Amsterdam assemblages after 1740 (Baart et al. 1986:98).

A variety of other wares were made in England during the late seventeenth and early eighteenth centuries, but by far the most common ones imported to North America were buff-bodied slipwares, white salt-glazed stonewares, and faience.

FUNCTION, FORM, AND WARE TYPES

Functions of vessels were dependent upon their ware types, since some types of ceramics were more suitable than others as tools for different activities. Coarse earthenwares were the most versatile because they were suited to food service, preparation, or storage. They could be used to make not only flat and hollow vessels for serving food and drink, but also pitchers, jars, bottles, bowls and other food storage and preparation vessels. They could equally be made into cooking pots that would withstand the heat of cooking over fires or in ovens, or fireguards and braziers to hold burning peat or coal. They were the cheapest pots to make because they used the most common types of clays, they could be fired with the least amount of fuel, and they did not need any specialized knowledge or materials for their decorations. Coarse earthenwares could thus be made into almost any vessel form; however, most coarse earthenware clays did not have physical properties that enabled them to be formed into thin-bodied vessels. Their use as tablewares, specifically plates, and drinking vessels was largely confined to those who could not afford vessels of pewter, refined earthenwares or, in the case of drinking vessels, stonewares or glass. The disadvantages of coarse earthenwares were that they were not considered to be as decorative as refined earthenwares and they were easily broken.

Refined earthenwares, (maiolica and faience), were less versatile because their glaze did not bond well to the body. They could not be used for cooking with any success but they could be used to make food service and preparation vessels, even though their great disadvantage was that their glaze chipped easily, particularly along the edges of cups or other hollowwares. Delftware food storage vessels, with the exception of drug/ointment jars, were not common. Delftware were more expensive to make than coarse

earthenwares for several reasons: the clays were less common and had to be imported into the Netherlands; they were fired twice rather than once; the materials for the glaze and pigments for decoration were costly; and the skills of a decorator were required for their painted designs. Since they had limited durability and were relatively more expensive than other earthenwares, but were visually attractive, most delftware were made in forms for food service, particularly plates, chargers, and dishes. Hollowwares, especially bottles, made of delftware often had a metal cap added to provide both a closure and protection to the lip. The delftware bottles seen in the genre paintings had such caps (for example, a Steen "Merry Family" and "Girl Drinking with a Sleeping Soldier" by Ter Borch).

Oriental porcelains and delftware shared many of the same functions. Although the techniques for manufacturing and decorating maiolica had been learned from a mediterranean tradition, faience in the seventeenth century became in many instances a lower-cost substitute for oriental porcelain. As such, not only decorative motifs but also forms paralleled those of porcelains. It is often difficult to differentiate between blue-decorated faience and porcelain in the genre paintings, and it takes more than a cursory glance to separate well-preserved museum specimens of faience from the porcelains that are often displayed with them. Porcelains imported from China and Japan were tea- and tablewares, for the most part. The need for tablewares had been filled by refined earthenwares in the Netherlands at least since the sixteenth century, but the need for teaware was newly imported from the Orient. The closest resemblances in forms are between faience and porcelain

plates, bowls, and dishes⁴. Teacups were also made of faience, although their tendency to chip made them less desirable.

Refined earthenwares (maiolicas and faiences), were most frequently made into tablewares of all kinds and teawares. Porcelains were most common in teawares and some tablewares (plates, dishes, and small bowls). Both delftware and porcelain were designed to be visually attractive, although the thinness and translucency of porcelain could not be matched by earthenware. Porcelain vessels were also more durable than their faience imitators. The advantages of the earthenwares were that they were more generally available and cheaper than porcelains.

In addition to their functions in foodways, the genre paintings show that ceramics and pewter (especially plates), of all kinds were often casually stored where they could be seen --hung up on hooks, on open shelves, or atop cupboards or chests. Thus, faience plates served as household decorations when displayed atop mantles or large cupboards, a non-food related but important function shared with porcelains. This function was formalized and separated from food-related activities during the eighteenth century when conventionalized garnitures (matching sets consisting of two vases and three covered jars), were developed and made in both porcelain and faience.

Salt-glazed stonewares were more durable than earthenwares or porcelains because they were not as easily broken when dropped or hit against another vessel. Their glaze was extremely well bonded to their body; sodium in the

⁴ Plates and dishes, (and other vessels), made in European forms were manufactured in the Orient especially for the export trade. Their shapes were based on wooden or delftware models sent to Chinese and Japanese potters by the East India Company. The exchange of ideas between European and Oriental potters flowed in both directions through the efforts of the East India traders.

salt vapor produced in the kiln combined with silica in the clay bodies during firing to form the outer layer of vessels. The resultant surface is very resistant to corrosion and, unlike the glazes used on seventeenth century earthenwares, the salt-glaze contained no harmful lead. Stonewares can be used in ovens, if they are not cooled too rapidly after use, but they are not suitable for use over a fire. These properties made salt-glazed stoneware most appropriate for storage vessels. Cooking vessels of stoneware were rare during this time because most cooking was done over the fire. In the seventeenth and early eighteenth centuries, most salt-glazed stonewares were made into mugs, jugs, and bottles for the consumption and storage of beer and wine. As noted above, salt-glazed stoneware was a German monopoly until very late in the century when the British began to make the same sorts of hollowware vessels. Vessels for consuming beverages, especially tall mugs, continued to be the most common forms made by English stoneware potters, but they also added cups, saucers, and bowls, made in oriental shapes, and teapots, often in eccentric shapes, to their stock. Tablewares were not made in stoneware in any quantity until the 1740s.

Salt-glazed stonewares were more expensive than earthenwares but less so than porcelains. Stonewares were imported, which increased their price relative to earthenwares, and the materials used to make them were more costly. They were more demanding to fire than earthenwares because they required much higher temperatures and because kilns used for salt-glazing have a much shorter use-life than ordinary kilns (Rhodes 1959:162-163). Their chief advantage was their durability, which made them very suitable for use as storage vessels and as service vessels for liquids. In addition the German jugs and mugs were very decorative, as can be seen in a variety of genre paintings, for example Maes's "Old Woman Praying" (Plate 4.4).

TABLE 6.1

	TABLEWARES	TEAWARES	FOOD PREP.	FOOD STOR.
COARSE EW.	some	absent	common	some
REFINED EW	common	common	absent	some
WHITE STW.	common	common	absent	rare
OTHER STW.	common	absent	absent	some
PORCELAIN	some	common	absent	absent

To summarize Table 6.1, tablewares (plates, chargers, dishes, porringers, and some bowls) were made from refined earthenware, coarse earthenware, and, less frequently, porcelain. Drinking vessels used at the table (mugs and small drinking jugs) were made from both kinds of earthenware, from stoneware and, very rarely, porcelain. Teawares were made from porcelain, refined earthenware, and, after 1715/20, white salt-glazed stoneware. The great majority of ceramic food preparation vessels were made of coarse earthenware. Food storage vessels, including most forms for storing liquids, were made of stoneware and coarse earthenware. The exceptions were bottles, which were made in faience as well as stoneware, and drug storage and dispensing jars that were made of faience. Drug jars or gallipots were originally made for apothecaries but they are found on most colonial sites in British North America (Noel Hume 1970:204), and probably were used to store a variety of ingredients used in both food and medicine preparation in homes. Bottles served a dual function because they were used to both store and serve liquids (most often beer and wine), although they were probably more important as serving than storage vessels because beer and wine were commonly stored in barrels, and bottles were the containers that carried these beverages to the table. Since they appeared

on the table, they were made to be decorative as well as functional.

It is of course impossible to determine all of the functions for which an individual vessel form could be used -- human behavior is not so reliably patterned. It is possible to list the main function of vessel forms as tablewares, food storage, etc., as above, and there are a few vessels whose use was probably quite restricted. The most easily identified are testjes, fireguards, chamber pots, bottles, and salt cellars. The first three types were not included in this study, since they are not related to food preparation, storage, or service. (In fact, neither testjes nor fireguards were identified in the assemblages examined.) Bottles were fairly common in the New York City assemblages, largely because of the presence of the Lovelace Tavern, (see below). One salt cellar was found in landfill, (not part of this study), at the 7 Hanover Square site. This distinctive maiolica vessel had a bulbous, lobed body with a pedestal foot and a shallow well at the top to hold the salt. It was probably made in Haarlem and was decorated with an Italianate orange and blue design (Jan Baart personal communication 1987).

These were the ceramics available to the Dutch and to early New Yorkers. The types and forms found in Lower Manhattan archaeological assemblages can now be described.

ARCHAEOLOGICAL ASSEMBLAGES FROM LOWER MANHATTAN

The Lower Manhattan excavations were conducted between 1979 and 1984 by private contracting companies under the auspices of the Landmarks Preservation Commission of New York City (Tables 6.2 and 6.3). The ceramics from the Stadt Huys Block and 7 Hanover Square sites are housed at Columbia University and were examined with the generous permission of Nan Rothschild of Barnard College. I conducted the preliminary ceramic tabulation for these sites as part of

the laboratory processing of the artifacts. The artifacts from the Broad Street site were donated to the South Street Seaport Museum by the developers who sponsored the excavation. The Curator for Archaeology at the Museum, Diana Wall, kindly made the Broad Street ceramics available for study. The ceramics were identified for the site report by Nancy Stehling. Additional analyses of the ceramics from all three sites were done during the course of the present study. All of the sites were located within the boundaries of New Amsterdam -- Broad Street and the Stadt Huys on the original East River shore line and 7 Hanover Square on late seventeenth century landfill between high and low water marks of the river (Figure 6.8).

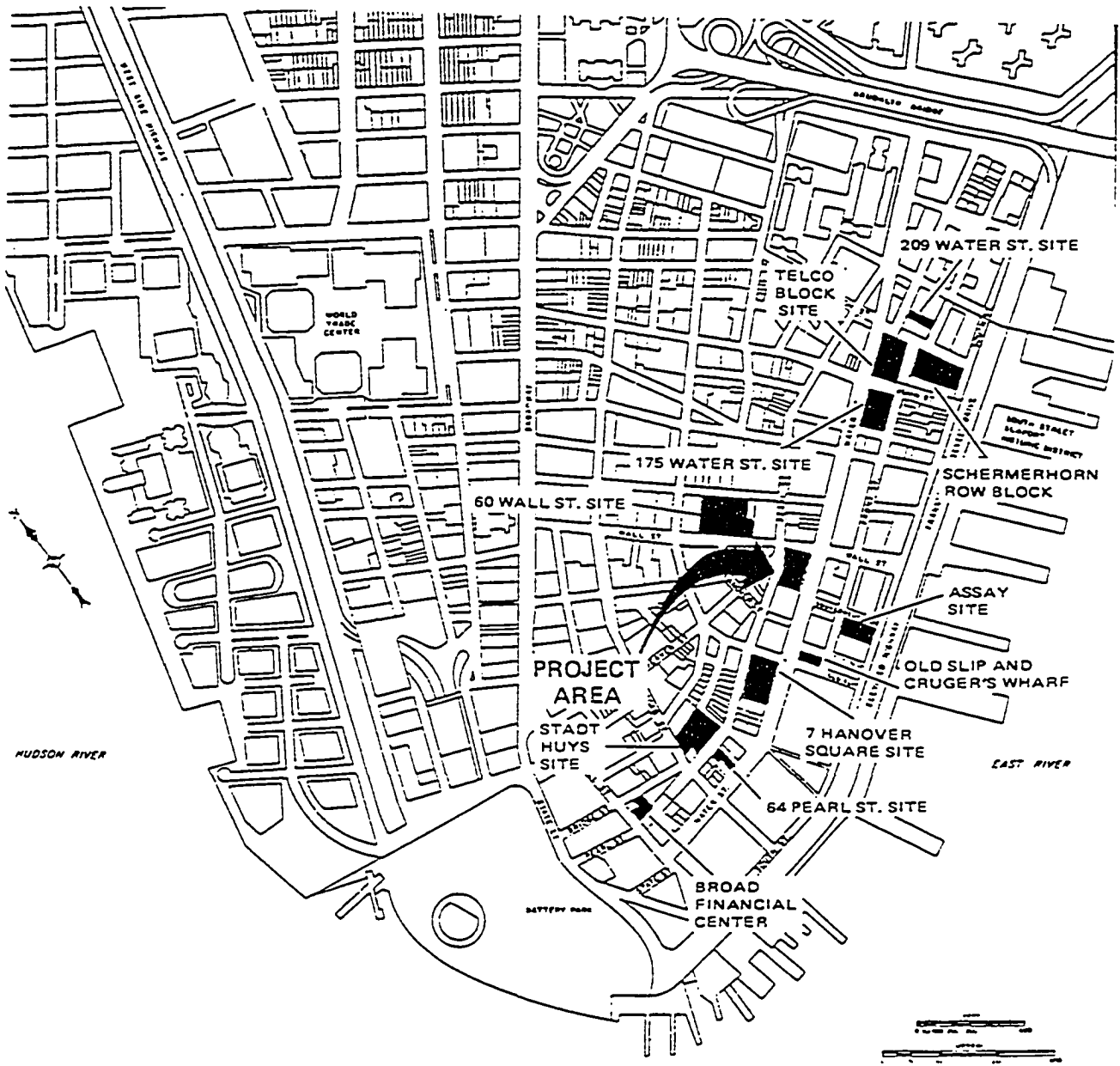
TABLE 6.2 - ASSEMBLAGES BY SITE

CONTEXT	TIME PERIOD	TYPE OF DEPOSIT	LOCATION	ATTRIBUTION	EXCAVATOR'S ID
BROAD STREET					
1	ca. 1653-1685	north barrel privy: trench, fill & pit. south barrel privy: trench	lot 8	Cornelius van Tienhoven residence	CMPs 8, 12, 13 and 9
2	1685-1700	south barrel privy fill	lot 8	unknown	CMP 14
3	1670-1710	barrel privy fill	lot 14	Dr. Hans Kierstede residence/office	CMP 62
4	1710-1720	red brick cistern fill	lot 14	unknown	CMP 63
5	1700-1720	fill of small stone structure	re lot 11	pipe dump - tavern of Obadiah Hunt ?	CMP 53 & 54
STADT HUYS BLOCK					
6	1670-1706	latest occupation and destruction debris of Lovelace Tavern	lots 8 & 9	various tavern proprietors	TCs AQ, AU, BH, BM, BP, BG, BL, BE, BW, BT, BS, BI, BF, BJ, BN, BK, BQ, BO, BX, BY, BR
7	1715-1740	fill of brick well/privy	lot 14	Carre Family	Feature 10, TC CD
8	ca. 1650-1700	yard scatter/ shallow garbage pit	lot 14	unknown	TC AG
7 HANOVER SQUARE					
9	ca. 1690-1700	construction surface/ basement deposit	lot 13	unknown	TCs V, AI, AM, AE AJ & AK

TABLE 6.3 - ASSEMBLAGES IN TEMPORAL ORDER

CONTEXT	CONTEXT	TIME PERIOD	TYPE OF DEPOSIT	LOCATION	ATTRIBUTION	SITE
8	8	ca. 1650-1700	yard scatter/ shallow garbage pit	lot 14	unknown	Stadt Huys
1	1	ca. 1653-1685	north barrel privy: trench, fill & pit. south barrel privy: trench	lot 8	Cornelius van Tienhoven residence	Broad Street
6	6	1670-1706	latest occupanon and destruction debris of Lovelace Tavern	lots 8 & 9	various tavern proprietors	Stadt Huys
3	3	1670-1710	barrel privy fill	lot 14	Dr. Hans Kierstede residence/office	Broad Street
2	2	1685-1700	south barrel privy fill	lot 8	unknown	Broad Street
9	9	ca. 1690-1700	construction surface/ basement deposit	lot 13	unknown	Hanover Square
5	5	1700-1720	fill of small stone structure	re lot 11	pipe dump - tavern of Obadiah Hunt ?	Broad Street
4	4	1710-1720	red brick cistern fill	lot 14	unknown	Broad Street
7	7	1715-1740	fill of brick well/privy	lot 14	Carre Family	Stadt Huys

Figure 6.8



Sites in Lower Manhattan. Taken from the Barclays Bank Report (II-15). "Project Area" is Barclays Bank.

All of the sites were city blocks that were divided into separate lots (the common Block and Lot designation of municipal real estate). Individual Block Numbers are assigned to each block within the City, but Lot Numbers run from 1 within each block. Lot lines have generally remained consistent in New York, except for subdivisions, since the seventeenth century. The sites were excavated by lot within the block, and location references to the deposits include a lot designation (Tables 6.2 and 6.3). Not all of the lots within the blocks had intact seventeenth or early eighteenth century deposits because many deposits and features were destroyed by later construction.

The deposits at the Broad Street site were dated on the basis of beginning manufacturing dates for specific types of ceramics, glasswares, and pipes, or on the earliest dates where the same types of artifacts have been found on other North American sites (Grossman 1985:V-2). These dates were used to calculate Termini Post Quem (TPQs) for the deposition of the components at the site. End dates for the "Temporal Groups" identified were based on the absence of any later artifacts. Particular components within the Temporal Groups were dated based on both artifacts and historical records. The deposits at the Stadt Huys and Hanover Square sites were dated, for the most part, using Mean Ceramic Dates (MCDs), TPQs, and Binford Pipe Dates⁵ along with historic records.

Mean Ceramic Dates (MCDs), as developed by Stanley South (South 1977), are the most commonly used method for dating historic deposits in North America. Using this technique, the analyst calculates the mean manufacturing date from known beginning and end dates of manufacture for a

⁵. Dating deposits through the measurement of pipe stem bore diameters is a statistical method developed by Harrington and refined by Binford (Noel Hume 1970:298-301).

specific ware type and multiplies this number by the number of sherds of the pertinent ware type in a deposit. These calculations are performed for each dated ware type, then the figures are added together and divided by the total number of sherds in the deposit. The resulting number is used as the mean date of deposition for the assemblage. MCDs are subject to various biases and work best with ware types with relatively short manufacturing date ranges. Since most ceramic ware types found at seventeenth century sites have long date ranges, MCDs for seventeenth century deposits are apt to be misleading, and should only be used in conjunction with TPQs and dates generated from other artifact classes.

The deposits included both sheet refuse deposits and feature fills. Sheet refuse is generally composed of materials that were discarded in a fairly open area after which they were likely to be subjected to post-depositional trampling and disturbance (Rothschild 1990:158). Feature fills, because they were deposited within an enclosed structure, such as an abandoned privy, well, or building foundation, should exhibit fewer post-depositional modifications (Rothschild 1990:157). In addition, sheet refuse generally cannot be attributed to a particular household, but the probable households that deposited feature fills can often be determined with some degree of accuracy through the comparison of the dates of the artifacts within the fill to historic records of occupation, such as tax lists, directories, or deeds.

The ceramic assemblages show great variations in the percentages of vessels that were complete enough for identification of form, and in numbers of sherds compared to numbers of MNVs. Fragmentation of vessels is caused both by the circumstances of initial deposition and by the amount of post-depositional disturbance. The artifacts within features like wells and privies (especially privies) in

urban contexts are usually either deposited gradually over the period of the use of the feature or, more commonly, the feature is periodically emptied of its contents and finally used as a receptacle for household or other refuse when it is no longer in use (Geismar 1993). In the latter case, the artifacts within the feature fill are likely to be deposited in a fairly complete condition, even though some more fragmentary material might be included in the feature's contents as redeposited material from sheet refuse or other deposits used as fill. The artifacts might be broken during or before deposition, but most of their pieces should be recoverable, if there is no post-depositional disturbance. In the case of sheet refuse, the artifacts are subject to a great deal of post-depositional trampling, moving, weathering, and possible redeposition (Rothschild and Balkwill 1993:73-76).

Many of the deposits available for use in this study had small numbers of ceramics and bones (Tables 6.4-6.24), and the artifacts within the deposits were often quite fragmentary, which made identification of vessel forms difficult. However, at the present time, they are the only seventeenth and early eighteenth century assemblages excavated from Lower Manhattan that did not have later, intrusive, artifacts. By combining the assemblages into two general time periods (see below), the numbers increase and some overall patterns do emerge.

Table 6.2 lists the deposits by site; Table 6.3 lists them in chronological order.

BROAD STREET SITE

The earliest assemblages included in this study come from the Broad Financial Plaza site, commonly called the Broad Street site, excavated by Joel Grossman (Grossman 1985). The site was bounded by Whitehall, Bridge, Broad and Pearl Streets (Figure 6.8). The seventeenth and early

eighteenth century components from the site used for this study are builder's trenches and fill from three barrel privies, fill from a red brick cistern, and fill found in a small stone building (Table 6.2). The deposits from the builder's trenches were most probably sheet refuse; the others were feature fills.

Assemblage 1 combines three different components: first, the builder's trenches for two barrel privies found adjacent to each other in Lot 8; next, a small pit associated with the north barrel privy; and finally the fill of the north privy. This assemblage can be associated with the occupation of the lot by the residence of Cornelius Van Tienhoven and his family between 1653 and 1679 (Grossman 1985:X-7). Van Tienhoven was a powerful, and corrupt, political figure who was part of the wealthy portion of the population. Although he disappeared in 1656, his family continued to reside here (Grossman 1985:AP-15).

Assemblage 2 is the fill of the south barrel privy in Lot 8. It was filled sometime between 1685 and 1700 (Grossman 1985:X-8). There is a gap in the record of occupation after 1679, and as a result this deposit cannot be attributed to a particular occupant, although the block as a whole continued to house families of relatively high socio-economic status throughout the seventeenth and early eighteenth centuries (Grossman 1985:X-8 and passim).

Assemblage 3 is the fill of another barrel privy, located in Lot 14 where Dr. Hans Kierstede had his residence and business (Grossman 1985:X-7). The Kierstede family lived on this property from 1647 until sometime after 1710; the fill is dated between 1670 and 1710. Kierstede was also a wealthy individual and his house was used as a reference point in several official documents: the 1656 ordinance that decreed that a market be held every Saturday named the location as "on the Strand, near the house of Master Hans Kierstede" (Stokes 1915, cited in Grossman 1985:X-8). His

wife reputedly encouraged Indian women to use her yard to string wampum and make baskets and brooms for sale in the market (Van Rensselaer 1898:26, cited in Grossman 1985:II-3).

Assemblage 4 is the fill of a red brick cistern, also in Lot 14. The fill dates to between 1710 and 1720, based on stemmed wine glass and bottle styles (Grossman 1985:VI-14-15), and the absence of white salt-glazed stoneware (Grossman 1985:V-36). Another gap in the documentary record prevents definite correlation of this deposit with a particular occupant (Grossman 1985:X-14), but it is likely that the lot was still occupied by the Kierstede family, specifically Luycas Kierstede, son of the prior occupants (Grossman 1985:IB-18).

Assemblage 5 is the fill of a small stone structure at the rear of Lot 11. The principal artifact class from this deposit was tobacco pipes: over 7,000 white clay pipe fragments were recovered (Grossman 1985:X-14). Many of the pipes had manufacturing defects and the deposit has been interpreted as a dump for unused, unacceptable pipes sent from Bristol, England (Grossman 1985:X-14 and chapter VII). The pipes can be tentatively attributed to the tavern of Obadiah Hunt in the adjoining lot (Lot 10), (Grossman 1985:VII-35), and it is possible that the artifacts in this deposit were also from this tavern. The deposit has been dated circa 1700-1720, based on the style and markings on the pipes.

STADT HUYS BLOCK

Different types of deposits were found at the Stadt Huys Block site. The Stadt Huys Block (presently called 85 Broad Street), was excavated by Nan Rothschild and Diana Rockman Wall (Rothschild, Wall and Boesch 1987). The Stadt Huys Block was one block east of the Broad Street site and was bordered by Pearl, Broad and Stone Streets and Coenties

Alley (Figure 6.8). Undisturbed seventeenth and early eighteenth century contexts included the remains of the basement of the Lovelace Tavern, yard deposits in the rear of Lot 14, and a brick-lined well or privy (Table 6.2). The deposits in the basement of the tavern and the rear of lot 14 were sheet refuse; the deposit within the well/privy was feature fill.

The Lovelace Tavern was built next to the Stadt Huys by the second English governor of New York, Francis Lovelace. It was erected in 1670 and was demolished in 1706 (Rothschild, Wall and Boesch 1987:122). During its existence it served as a tavern, inn, and, after the Stadt Huys was declared unsafe in 1697, the meeting place for the municipal government.

The Tavern excavations sampled approximately 50% of its area (Rothschild, Wall and Boesch 1987:131). Test cuts were placed in the Tavern's basement interior, on the outside of the Tavern walls, and in locations where the walls' stones had been removed, in order to locate the Tavern's structural features and to recover a representative sample of the artifacts associated with the Tavern (Rothschild, Wall and Boesch 1987:131-2). Late seventeenth century artifacts were found in deposits lying on the Tavern floor, (the floor was identified by burned planks or by soil density and elevation), under the floor, and in and around a barrel partially sunk into the tavern floor (Rothschild, Wall and Boesch 1987:133-135). All of the ceramics will be combined here into one analytical component because their dates (based principally on glass and pipe manufacturing dates) indicate that they can be associated with the last years of the Tavern's use. The Tavern deposits are Assemblage 6. In general, the ceramics were fragmentary and there was very little crossmending possible; however, five nearly complete redware bottles were recovered (see below). There were relatively few ceramics in the Tavern deposits. The bulk of

the artifacts were white clay pipes from the Netherlands and England, and wine glasses and bottles. The composition of this artifact assemblage was due to the Tavern's principal function as a public house and meeting place where the main activities were drinking and smoking rather than food preparation and consumption (Rockman and Rothschild 1984).

From the late seventeenth century to the Revolution, Lot 14, located in the eastern portion of the block, was part of a double lot that extended across the block from Pearl to Stone Street (Rothschild, Wall and Boesch 1987:36). It apparently did not have any structures on it until the end of the century. The property was owned by the Philipse family from at least 1699 to the Revolution (Rothschild, Wall and Boesch 1987:38). Originating in the Netherlands, the Philipse family was one of the most wealthy and socially prominent in New York. Although they owned this property, they did not live there but instead rented it to tenants. The first house on the property was built by 1699, when it was occupied by Lewis Carre, a Huguenot. In 1703, the Carre family consisted of an adult white man, three adult white women, two boys and two girls (white), and a black woman and child (O'Callaghan II:622, cited in Rothschild, Wall and Boesch 1987:38). Carre remained on the property until 1733/34.

Assemblage 7 is the fill of a circular privy or well at the rear of Lot 14. The fill of this structure (Feature 10/Test Cut CD) can be attributed to the Carre family since the ceramic artifacts in the deposit date after 1715/20 and before 1740. Feature 10 was made of red brick and was thirty-three inches in diameter; its remaining depth was slightly less than six feet. The structure might have been constructed as a well but it is possible that it served as a privy before it was abandoned. Excavation of this feature was extremely difficult because of its narrow diameter and the high water table; many of the artifacts were broken

during excavation but were reconstructible. It appears that the fill was deposited fairly rapidly since there is little difference between the artifact contents of the upper and lower strata and since there are numerous cross-mends between strata. However, the upper strata contained some later intrusive material from early nineteenth century destruction/construction episodes (Rothschild, Rockman and Boesch 1987:116-119).

Assemblage 8 is a yard or shallow pit deposit in the rear of Lot 14. This deposit was sampled with three test cuts (Rothschild, Wall and Boesch 1987:98). Test Cut AG was the only unit that yielded analyzable quantities of seventeenth century ceramics in an undisturbed context. The strata in Test Cut AG were most probably the remnants of a deposit that originally covered the entire rear of the lot, but that was removed during the construction of later features in Lot 14, including Feature 10 (Rothschild, Wall and Boesch 1987:99). This deposit was most probably a yard scatter of debris, or was possibly a shallow garbage pit.

It is not possible to correlate the yard deposits in Test Cut AG with the Carre family. The lot was apparently unoccupied before 1699, as noted above, and it is likely that this area was used for casual refuse disposal during the time that the lot was unoccupied. The yard deposits can therefore only be attributed to a general late seventeenth century deposition.

HANOVER SQUARE

Assemblage 9 is from the 7 Hanover Square Site. It is a mortar surface in Lot 13 that was sampled with six excavation units; approximately thirty percent of the surface was excavated (Rothschild and Pickman 1990:13-1). This surface has been interpreted as either a mortar floor capping the landfill or as a surface associated with the construction of the first house built on the landfill: it

consists of a layer of mortar (a lime-based substance tempered with sand and/or shell), that was either accidentally or deliberately put atop the landfill in the basement of the first house built here. Landfill on this block commenced after 1690, and this deposit has been dated circa 1690-1700, based upon the dates of the artifacts within it and above it (Rothschild and Pickman 1990). Artifacts and bones were found directly on the mortar surface. If the surface were a mortar floor laid to keep out the dampness of the landfill, the artifacts lying on it could be a domestic deposit associated with the first occupants of the house; however, it is more likely that the artifacts were deposited during construction of the house and thus cannot be associated with a particular household. The type of the deposit is sheet refuse.

CERAMIC ASSEMBLAGES

Several problems had to be resolved before these assemblages could be compared. Some of these were site specific and some were more general problems of artifact analysis. The most difficult to resolve were the differences in the types of information recorded by different ceramic analysts: the projects had different research goals and therefore approached the artifacts differently; further, the analysts did not have the same comparative resources available to them (e.g., reference books and familiarity with European assemblages). The Stadt Huys and 7 Hanover Square ceramics were described in words on tabulation forms in as much detail as possible. (A simple coding system that recorded only ware types and sherd counts was later added to the sheets and was used to generate Mean Ceramic Dates and an artifact inventory list for the site reports.) In contrast, the Broad Street ceramics were recorded on data entry forms using standardized codes that did not allow for detailed form or

decoration entries. The Stadt Huys and Hanover Square sherds (with the partial exception of Feature 10) were not cross-mended, but the Broad Street sherds were cross-mended.

In order to make the collections more comparable, all of the sherds from the Stadt Huys and Hanover Square and the most complete ceramics from Broad Street were re-examined and described. Cross-mending was also attempted for the Stadt Huys and Hanover Square ceramics; however, due to the fragmentary nature of the artifacts, few joins were found. MNVs (Minimum Numbers of Vessels) were calculated for these two sites according to the following methodology: sherds from each assemblage were separated by ware type and form and each unique group of sherds was considered to represent a vessel, regardless of completeness or of vessel part present, and was given a count of 1. MNVs were assigned to the Broad Street ceramics on a much more conservative basis:

An attempt to get at a very conservative minimal vessel count was made by sorting the sherds of each Context into ware type, then size specific vessel forms, finally by decorative motifs, and then counting 50% or more of a base or a unique ceramic ware type (Stehling in Grossman 1985:V-14).

Therefore, only vessels that were relatively complete were included in the MNV count for Broad Street. In my opinion, it is more accurate to count MNVs for vessels of all levels of completeness, since, given the fragmentary nature of the assemblages and the excavation sampling strategies, very few vessels will be more than one-quarter complete. Since one of the goals of artifact analysis should be to translate depositional/archaeological assemblages into behavioral/systemic assemblages, it is necessary to speak of vessels rather than of sherd counts. Nevertheless, since the Broad Street and Stadt Huys/7 Hanover Square assemblages were not measured in the same manner, both MNVs and sherd counts are shown in Tables 6.4-6.12. Two categories of sherds were not translated into MNVs. First, miscellaneous

redware sherds that were very fragmentary and whose forms were totally unidentifiable, and second, faience fragments whose form and decorations were unidentifiable. They were not given MNVs for the following reasons: they would have over-inflated the Redware count; the faience fragments might be part of the identified vessels; and it is quite possible that these small fragments were intrusions into the assemblages caused by movement of artifacts within the ground after deposition.

Many of the assemblages were fragmentary and the sherds were small in size, which made identification of form difficult and created a large group of "Unident." (unidentifiable) vessel forms. As noted above, however, different ware types were most often made in only one or two functional groups. The functional groups used here are Service (tea- and tablewares and serving vessels); Preparation (preparation and cooking vessels); and Storage (forms for dry and liquid storage). The general ware types can therefore be separated into gross functional categories based on paste characteristics. Delftware (maiolicas and faiences) and stonewares were used for food service vessels. Large, often minimally decorated, stonewares were used for food storage. Coarse earthenwares of various kinds were used most commonly for food preparation but were also used for food service (particularly in less affluent households), and, less commonly, for storage. The vessel forms of coarse earthenwares must be identified before distinctions can be made between these categories. Porcelains were made almost exclusively into service vessels, especially teawares.

Three groups of redware bodies and forms were defined: Dutch, English, and Unascribed. With the exception of several vessels that could be definitely identified as of Dutch or German, (Nederrijn), manufacture, no attempt was made to separate Dutch from Dutch-American or English from English-American redwares in the Tables for two reasons.

First, this study is attempting to trace the persistence of Dutch foodways throughout the seventeenth century and, for this limited purpose, it is more important to determine if New Yorkers continued to obtain and use Dutch forms, rather than to determine where they were made. Second, a more practical reason is the difficulty of distinguishing between Dutch and New Amsterdam/New York made redwares. The forms are very similar and, as yet, stylistic differences between Dutch and Dutch/American forms have not been defined. Jan Baart has made the observation that many vessels excavated from New York City sites have visible mica in their bodies, and that this characteristic is very rare in Dutch vessels (Jan Baart 1986 personal communication). Many of the grapen-form redwares from New York have visible mica. However, the most reliable method for distinguishing between Old and New World redwares is the chemical analysis of pastes. This is discussed below in Chapter 7.

Tables 6.4 through 6.12 list the ceramics from each Assemblage.

TABLE 6.4 ASSEMBLAGE # 1 - BARREL PRIVES, TRENCHES, FILL AND PIT (VAN TIENHOVEN) 1653-1685 (BROAD ST.)

TYPE	FORM	DECORATION	FUNCTION	# OF SHERDS	MNV
Buff Earthenware-Green glaze	unidentifiable	none	---	4	1
Buff Earthenware-Yellow glaze	unidentifiable	none	---	2	1
Red Earthenware-Brown glaze	jug	none	multi-function	1	1
• • • • •	large hollowware - bak?	none	preparation	4	1
• • • • •	unidentifiable	none	---	31	--
Red Etrur-Green/Ginger glaze	bowl	none	preparation	1	1
Red Etrur-White Slip Green glaze	bowl	none	preparation/service	1	1
• • • • •	unidentifiable	none	---	2	--
• • • • •	colander	none	preparation	1	1
Oriental Porcelain	flatware base	miscellaneous underglaze blue	service	1	1
Delftware-Malolica	plate	unidentifiable	service	2	1
• • • • •	unidentifiable	miscellaneous blue on white	service	2	--
Delftware-Falence	plate	plain white	service	1	1
• • • • •	unidentifiable	plain white	---	11	--
• • • • •	unidentifiable	miscellaneous blue on white	---	9	--
• • • • •	unidentifiable	miscellaneous blue on blue	service	1	1
• • • • •	plate/bowl base	miscellaneous blue & very dark blue on white	service	1	1
• • • • •	plate	orange and blue floral	service	1	1
• • • • •	bowl	miscellaneous blue on white	---	5	--
• • • • •	unidentifiable	---	---	---	---
German Stoneware-Brown Mottled	unidentifiable	mottled brown slip	---	2	1
Grmn Stoneware-Westenwald Type	jug	sprigged medallions with cobalt blue	service	1	1
Iberian Coarse Earthenware	olla (jar)	---	storage	1	1
American Indian	hollowware	stamped and incised	prep./storage	1	1
TOTAL				86	17

TABLE 6.5 ASSEMBLAGE 2 - SOUTH BARREL PRIVY FILL 1685-1700 (BROAD STREET)

TYPE	FORM	DECORATION	FUNCTION	# OF SHERDS	MNV
Buff Earthenware-Yellow glaze	unidentifiable	none	unidentifiable	1	1
Red Earthenware-Brown glaze	deep "steelpan"	none	preparation	1	1
•	pitcher	none	preparation/service/storage	4	1
•	"steelpan"	none	preparation	8	1
•	colander	none	preparation/service	2	1
•	dish	none	service/preparation	1	1
•	mug	reeded neck	service	1	1
•	unidentified	none	unidentifiable	13	...
English Buff Slipware	drinking pot/mug/pouringer	unknown	service	2	1
Oriental Porcelain	saucer	underglaze blue floral/landscape matching designs	service (tee)	6	2
Deftware-Majolica	charger	blue dash on rim, central design unknown	service	1	1
Deftware-Falence	plate	blue on white chinoiserie dragon on rocks	service	1	1
•	plate	blue on white Wan-li (chinoiserie)	service	2	1
•	plate	dark blue on white floral w/ filled-in background	service	1	1
•	plate/charger	miscellaneous blue on white designs	service	2	2
•	plate	plain white glaze	service	1	1
•	plate/bowl base	blue on white chinoiserie figure outlined in purple	service	1	1
•	bowl	blue floral w/filled-in background	service/preparation	1	1
•	bowl	miscellaneous blue on white design	service/preparation	2	1
•	jar/bowl base	unidentifiable	storage/service	1	1
•	unidentifiable	unidentifiable	unidentifiable	14	..
Ger. Stoneware-Westward Type	jug/jar	trailed, possibly floral, design in cobalt	storage/service	1	1
TOTAL				67	22

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TABLE 6.6 ASSEMBLAGE 3 - BARREL PRIVY FILL (Kiersede) 1670-1710 (BROAD STREET)

TYPE	FORM	DECORATION	FUNCTION	# OF SHERDS	MNV
Red Earthenware-Brown glaze	dish	none	service/preparation	3	1
Red Ethwr-Green/Ginger glaze	"grape"	none	preparation/service	3	1
Salmon Ethwr-Mustard glaze	unidentifiable	none	unidentifiable	1	1
English Buff Slipware	unidentifiable	unknown	unidentifiable	2	1
Delftware - Faience	handleless tea cup	bl. on wht. chinoiserie floral w/diaper/floral bldr	service (tea)	2	1
" "	charger	blue on white Wan-li with central urn	service	11	1
" "	unidentifiable	miscellaneous blue on white	unidentifiable	1	---
Iberian Coarse Earthenware	jar	none	storage	1	1
TOTAL				24	7

TABLE 6.7 ASSEMBLAGE 4 RED BRICK CISTERN FILL 1710-1720 (BROAD STREET)

TYPE	FORM	DECORATION	FUNCTION	# OF SHERDS	MNV
Buff Earthenware-Green glaze	small plate/shallow bowl	none	service	49	1
Red Earthenware-Brown glaze	unidentifiable	none	unidentifiable	3	1
Delftware-Faience	plate	bl. on bl. chinoiserie paneled floral, Wan-ii?	service	1	1
•	bowl	powder blue on white	service	1	1
•	porringer	plain white w/ silver-style handle	service	1	1
•	plate	miscellaneous blue on white	service	2	1
•	unidentifiable	miscellaneous blue on white	unidentifiable	6	---
•	unidentifiable	plain white	unidentifiable	12	2
•	unidentifiable	misc. blue and green on white	unidentifiable	1	1
English Stoneware-Fulham Type	mug	incised bands below rim	service	1	1
Oriental Porcelain	small plate/saucer	undglz bl sacred symbols brdr w/cent figure	service (tea?)	1	1
•	unidentifiable	miscellaneous underglaze blue	unidentifiable (tea)	13	1
TOTAL				91	12

TABLE 6.8 ASSEMBLAGE 5 (PIPE DUMP - TAVERN OF HUNTRY 1700-1720 (BROAD STREET))

TYPE	FORM	DECORATION	FUNCTION	# OF SHEERDS	MNV
Red Earthenware-Brown glaze • • • • •	"kookpo/gyapo" dish with handle pitcher	none none none	preparation preparation/service service/preparation/storage	1 7 1	1 1 1
Frechen Type Earthenware	bowl }	incised wavy lines along rim	preparation	7	1
Red Ellw.-Spd./No.Holland Type	two-handled 'bottle'	trailed slip along the rim	service possibly preparation	13	1
Dellware-Faleroce • • • • •	possel pot w/scroll handles bowl cup cup unkentifiable unkentifiable plate/charger unkentifiable unkentifiable	plain white glaze, handle slip on rim plain white glaze robin's egg blue glaze misc. blue decoration on white robin's egg blue glaze misc. blue decoration on blue glaze 'kabeland' rim decoration in blue, rest unknown plain white glaze unknown	service service service (tea) service (tea) unkentifiable unkentifiable service unkentifiable unkentifiable	96 7 18 1 16 2 1 3 52	1 1 1 1 1 1 1 1 -
Ger. Stoneware-Westerveld Type Ger. Stoneware-Grenzau Type	unkentifiable mug	misc. blue small sprigged men's faces linked w/incised lines	unkentifiable service	1 27	1 1
Eng Stoneware-Nollingham Type	unkentifiable	incised lines in geometric patterns	service	3	1
TOTAL				256	16

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TABLE 6.9 ASSEMBLAGE 6 LOVEFACE TAVELIN 1670-1706 (STADT HUYS)

TYPE	FORM	DECORATION	FUNCTION	# OF SPECIES	MINV
Budl Earthenware Green glaze	undentifiable	none	undentifiable	1	1
Budl Earthenware Yellow glaze	undentifiable	none	undentifiable	11	1
Budl Earthenware Yellow/Gin glz	undentifiable	none	undentifiable	2	1
Red Earthenware Brown glaze	bottles	none	service	85	4
•	"grape"	none	service/preparation	2	1
•	undentifiable	none	undentifiable	27	..
Red Earthenware Dark Green glz	bottle	none	undentifiable	32	1
•	undentifiable	none	undentifiable	5	2
•					
English Budl Slipware	drnk pot/mug ring-handle	unknown	service	1	1
Mudlands Mottled Earthenware	mug	unknown	service	1	1
Oriental Porcelain	cup base	unknown	service (tea)	1	1
Delftware Majolica	plate/charger	miscellaneous blue on white	service	1	1
•	undentifiable	miscellaneous blue on white	undentifiable	1	1
•	undentifiable	powdered brown/purple on white	undentifiable	1	1
Delftware F-alence	plate	miscellaneous blue on white	service	3	2
•	plate	blue and yellow bands on rim	service	2	1
•	dish	plain white	service	1	1
•	bowl	plain white glaze on a lobed body	service	1	1
•	jar	blue on white chiniserie design	service	1	1
•	undentifiable	blue and purple interlocking circles	storage	1	1
•	undentifiable	blue on white floral	undentifiable	1	1
•	undentifiable	miscellaneous blue on white designs	undentifiable	5	..
•	undentifiable	plain white	undentifiable	2	1
Delftware Other	plate	unknown, possibly Iberian or Mexican	service	1	1
•	undentifiable	unknown - glaze missing	undentifiable	15	..
German Stoneware Brown Mottled	bottle	unknown	service/storage	5	3
Ger. Stoneware Westerveld Type	mug	incised stylized pomegranate filled in w/ blue	service	3	1
•	mug	miscellaneous blue decoration	service	1	1
•	undentifiable	unknown	undentifiable	1	1
Iberian Coarse Earthenware	olla (jar)	none	storage	13	1
TOTAL				228	35

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TABLE 6.10

ASSEMBLAGE 7 - FILL OF BRICK WELL/PRIVY (CARRE) 1715-1740 (STADT HUYS)

TYPE	FORM	DECORATION	FUNCTION	# OF SHERDS	MNV
Self Earthenware-Yellow glaze	undecorated	none	undecorated	1	1
Red Earthenware-Brown glaze	pitcher with round handle	none	preparation/service	14	1
• • • • •	pitcher/bottle base	none	preparation/service	1	1
• • • • •	drinking pot/pominger/mug base	none	service	11	2
• • • • •	lid - small jar/pot	none	storage	11	1
• • • • •	small mug	none but curled handle attachment	service	4	1
• • • • •	bowl/pan	none	preparation	4	2
• • • • •	scooter/bowl	none	preparation	2	1
• • • • •	jar/pitcher base	none	storage/preparation	6	2
• • • • •	undecorated	none	undecorated	70	-
Red Earthenware-Dark Green glaze	undecorated	none	undecorated	10	1
Red Earthenware-Slip Traced	pan/bowl	traced slip, undent, pattern	preparation	1	1
• • • • •	hollowware wing handle	traced slip, undent, pattern	service/preparation	3	1
Red Earthenware-White Slip-Gm glaze	"grape" foot	none	service/preparation	2	1
North Devon-Gravel Temper	undecorated	none	undecorated	2	1
English Buff Stoneware	drinking pot	dot and combed slip	service	1	1
• • • • •	cup	dot and combed slip	service	1	1
• • • • •	drinking pot/cup/pominger	dot and combed slip	service	2	1
Middlesex Model Earthenware	mug	reeded base	service	2	1
Devonshire-Tenace	jar/gallipot	light blue encircling lines and capes	storage	50	1
• • • • •	jar	miscellaneous blue on white design	storage	2	2
• • • • •	plates	misc. bl on wht floral, floral/landscape landscape	service	20	7
• • • • •	plate	blue on white landscape w/ figures	service	2	1
• • • • •	plate	Wan-li (chinosens) blue on white	service	1	1
• • • • •	cup	miscellaneous polychrome on white design	service (ass?)	1	1
• • • • •	cup or small mug	design undecorated, red line around rim	service (ass?)	1	1
• • • • •	cups	misc. unmatching blue on white designs	service (ass?)	5	4
• • • • •	bowls	misc. blue on white designs	service/preparation	5	3
Der Stoneware-Westonfield Type	undent, hollowware	incised design filled in w/blue	service/storage	1	1
• • • • •	wide-mouthed jar	misc. brushed bl design, cordoned rim, local ?	storage	6	1
• • • • •	narrow-necked jar	incised grooves filled-in w/blue, local ?	storage	1	1
• • • • •	undecorated	undecorated	undecorated	1	1
English Stoner-White Salt Glaze	tail mug	brown line around rim, white engobe on body	service	29	1
• • • • •	mug	brown line around rim	service	1	1
• • • • •	large mug base	white engobe on body	service	1	1
• • • • •	mug base	unknown	service	2	1
• • • • •	cup	brown line around rim, white engobe on body	service (ass?)	6	1
• • • • •	saucer	none	service (ass?)	5	1
• • • • •	bowl base	unknown	service/preparation	1	1
English Stoneware-Fulham Type	tail mug	partial brown slip	service	18	1
English Stoneware-Other	tail mug	stamped WR (Wm. Rex)	service	4	1
Devon Coarse Earthenware	jar (olla)	none	storage	4	1
TOTAL				324	56

TABLE 6.11 ASSEMBLAGE 8 - YARD DEPOSIT IN LOT 8 1650-1700 (BROAD STREET)

TYPE	FORM	DECORATION	FUNCTION	# OF SHEERD	MNV
Buff Earthenware-Yellow glaze " "	"steelpan" unidentifiable	none	preparation/service	2	1
Buff Earthenware-Yellow/Green glz " "	unidentifiable	none	unidentifiable	1	1
Red Earthenware-Brown glaze " "	"grape" "steelpan"	none	service/preparation	8	3
" "	dish	none	preparation/service	1	1
" "	unidentifiable	none	service/preparation	2	1
Red Earthenware-Wht.Slp.Grn.glz	bowl	green glaze over white slip	unidentifiable	13	..
Delftware-Majolica Delftware-Faience " "	plate plate/charger plate	miscellaneous blue on white blue on white Wan-li design miscellaneous blue on white	service service service	2 3 3	1 1 1
" "	plate	plain white glaze	service	1	1
" "	unidentifiable	unknown	unidentifiable	3	..
German Stoneware-Brown Mottled " "	bottle unidentifiable	sprigged bellarmine face or medallion unknown	service/storage	2	1
Ger.Stoneware-Westertwald Type " "	unidentifiable	unknown	service/storage unidentifiable	1 2	1 1
TOTAL				48	16

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TABLE 6.12 ASSEMBLAGE 9 - CONSTRUCTION SURFACE IN BASEMENT 1690-1700 (HANOVER SQUARE)

TYPE	FORM	DECORATION	FUNCTION	# OF SHEPDS	MNV
Buff Earthenware-yellow glaze	"kookpot"	none	preparation	28	1
•	unidentifiable	none	unidentifiable	3	1
Buff Earthenware-Yellow/Green glz	unidentifiable	none	unidentifiable	3	1
Red Earthenware-Brown glaze	"gräpan"	none	preparation/service	11	2
•	for	none	storage	1	1
•	pitcher	none	service/storage	4	1
•	"steelpan"	none	preparation	1	1
•	misc. cooking pot	none	preparation	1	1
•	misc. large hollowware	none	unidentifiable	6	..
•	unidentifiable	none	unidentifiable	2	1
Red Earthenware-Green/Ginger glz	unident./possible "tesje"	none	unidentifiable	1	1
•	unidentifiable	none	unidentifiable	1	1
English Buff Slipware	small hollowware	narrow combed lines	service	1	1
Delftware-Falence	plate	misc. bl. & yellow design w/ purple outlines	service	1	1
•	plate	misc. prpl., bl. & yellow design w/in db. circles	service	2	1
•	plate	plain white glaze	service	2	1
•	unidentifiable	misc. blue & purple design on ll. blue	unidentifiable	2	1
•	unidentifiable	unident. blue on white designs	unidentifiable	16	2
•	misc. hollowware	unidentifiable	unidentifiable	1	1
German Stoneware-Brown Mottled	botle/fug	unidentifiable	service	1	1
Ger Stoneware-Westerveld Type	mug/fug	spigged medallion, misc. bl. & prpl. dec.	service	3	1
TOTAL				91	22

235

ASSEMBLAGE 1

Assemblage 1 (Table 6.4) included red and buff-bodied coarse earthenwares, maiolica and faience, German stonewares, Oriental porcelain and one sherd of Native American pottery. The assemblage was fairly fragmentary and many of the vessel forms were unidentifiable. The American Indian sherd was possibly redeposited. The porcelain vessel was a base fragment whose form could not be positively identified; porcelain is rare on seventeenth century sites in North America, compared to contemporary sites in Europe, but some did reach the colonies, either in the baggage of settlers or as shipments to specific colonists from European agents. The one sherd of an Iberian olla (storage jar) was not sufficient for the vessel's size or precise form to be determined. Of the seventeen vessels in this assemblage, the forms of only ten (58.8%) could be definitely identified.

ASSEMBLAGE 2

Assemblage 2 (Table 6.5) had a smaller variety of ware types. The presence of English buff-bodied slipware indicated that the sherds were deposited after 1675, the beginning date of manufacture for this coarse earthenware. The two Chinese porcelain saucers in the assemblage had identical designs painted by different hands and very thin, fine bodies (Greenhouse 1985: Plate V-5). Later export porcelains were relatively thicker and their designs often show some European influence. Tea vessels begin to appear in late seventeenth century assemblages, after the introduction of the custom of tea drinking from Europe, but do not become common until the eighteenth century. The designs on the numerous faience vessels in this assemblage were chinoiserie or floral designs. Of the twenty-two vessels in this assemblage, nineteen (86.4%) had identifiable forms.

ASSEMBLAGE 3

Assemblage 3 had the smallest number of sherds and vessels (Table 6.6) and the vessels were fairly fragmentary. The faience vessels included a tea cup with a chinoiserie blue on white decoration and a charger with a blue on white Wan-li paneled border and a central design of an urn (Greenhouse 1985: Plates 8 & 9). Faience potters, as noted above, imitated Chinese designs and also copied Chinese teaware forms. Handleless tea cups and saucers of faience met the demand for vessels from which to drink the new beverage. Five of the seven vessels (71.4%) in Assemblage 3 were identifiable.

ASSEMBLAGE 4

Assemblage 4 was also small but, since one vessel is made up of forty-nine fragments, it had a high sherd count (Table 6.7). This vessel, a small plate or shallow bowl (Greenhouse 1985: Plate V-14) had an uneven green lead glaze on the interior and its form was very similar to some locally-made vessels excavated in Amsterdam (Baart et al. 1986: Plate 15). The Assemblage 4 vessel, however, might have been made in New York since the uneven green glaze was not typical of Amsterdam-made wares. The other vessels in this assemblage were fragmentary. The small Chinese porcelain plate was finely made and may have been part of a tea service. The Fulham-style stoneware mug was evidence of the encroachments that English potters began to make into the German stoneware industry during the early eighteenth century. Although the English had acquired the art of making salt-glazed stoneware in imitation of Rhenish wares after 1670, mugs and bottles of English stoneware did not reach the American colonies in any quantities until after 1690 (Noel Hume 1970:112-114). Seven of the twelve vessels (58.3%) in this assemblage were identifiable.

ASSEMBLAGE 5

Assemblage 5 had a very high sherd count but only sixteen vessels (Table 6.8). The sherd count was skewed by the presence of mended vessels with high sherd counts; this assemblage had a relatively high number of mendable, fairly complete vessels. The vessel with the highest sherd count was a plain white faience posset/sillabub pot⁶ (Greenhouse 1985: Plate V-15). This unusual vessel was more than three-quarters complete. Another vessel was made up of twenty-seven sherds and was almost completely reconstructible. It was a small German stoneware mug, decorated with sprigged motifs representing men's faces with mustaches and with ruffs under their chins. This vessel can be attributed to the town of Greznau in the Rhineland (Greenhouse 1985: Plate V-16). A German earthenware bowl was also present in this assemblage. This vessel, a deep bowl with a very thick rim (Greenhouse 1985: Plate V-16) closely resembles examples made in the Rhineland during the seventeenth century (Gaimster 1988:159-161). Other vessels were the only identifiable bakje in any of the assemblages and faience tea cups. This assemblage thus included both distinctively English and Dutch forms. Eleven of the sixteen vessel forms (68.75%), were identifiable.

ASSEMBLAGE 6

Assemblage 6 had the largest number of vessels (Table 6.9). The assemblage was dominated by forms associated with

⁶. A large hollowware vessel with two handles, a lid and a spout for drinking sillabub, posset, and wassail (Beaudry et.al 1983:32). Posset was "hot milk curdled with ale, wine, or other liquor, often with sugar, spices or other ingredients ... [that was] partially spooned out and partially sucked from a tubular spout" (Archer and Morgan 1977:36). The form seems to have been unique to the British and was a "socially important" vessel that was replaced by the punchbowl in the eighteenth century (Archer and Morgan 1977:60). The social importance of the vessel was in its use during communal, public, consumption of beverages.

the serving and consumption of liquor, a characteristic typical of taverns (Rockman and Rothschild 1984). The most complete vessels were five bottles made of red earthenware (Plate 6.4). Coarse earthenware bottles were rare and these were probably made by a local potter in imitation of faience or German stoneware examples. The distinctive neck treatment on the Tavern bottles is very similar to some German stoneware forms (Ab Lagerweij personal communication 1987 and Reynaud n.d.: illustration 3), but the white faience bottle illustrated in Ter Borch's "Woman Drinking Wine With A Sleeping Soldier" also has a similar neck. No faience bottle sherds were found in the Tavern, but five sherds from at least three different German stoneware bottles were recovered. None of these stoneware bottles were complete enough to determine their shape or decoration. The five red earthenware bottles were almost identical in their forms but all had different glazes, perhaps in part due to varying firing conditions within the kiln. However, at least two different glaze formulas were used since one of the bottles had green glaze (indicating that copper oxide was part of the glaze), while the others had varieties of brown. The bottles were approximately eight inches tall, base diameters were three inches, and all other measurements showed only a maximum variation of one-half inch, but most were under one-fourth inch. Capacities varied from three and two-thirds cups to one quart and one-quarter cup.

Plate 6.4

One of the bottles from the Lovelace Tavern.



These bottles were virtually identical and were most probably designed to function as serving and/or consumption vessels for wine or beer. Wine and beer were generally shipped and stored in barrels, rather than in bottles, which were tapped as needed. There were many glass bottles found in the Lovelace Tavern and the earthenware bottles probably represent an attempt by a local potter to take advantage of the market for serving/drinking vessels. The earthenware bottles had the advantage of secure handles (glass bottles were almost always without handles) and they would have been cheaper than imported glass or stoneware bottles. However, two of the bottles have kiln pad adhesions on the base that make them rather wobbly, an undesirable characteristic. The bottles were discarded in close proximity to each other in the Tavern basement and four were almost completely reconstructible. Many of the glass bottles were discarded in the same location and were also relatively complete, so it is probable that both types of bottles were in use during the last years of the Tavern (circa 1700). The other ceramics in the Tavern were fragmentary but twenty four of thirty-five (68.57%) had identifiable forms. They included other forms associated with the consumption of liquids (mugs and cups); nevertheless, the relatively low percentage of these vessels was probably due to the extensive use of stemmed wine glasses, which was evident from the amount of glass sherds found in the tavern excavations (Rothschild, Wall and Boesch 1987).

ASSEMBLAGE 7

Assemblage 7 had the largest number of vessels and the highest percentage (91%) of identifiable forms (Table 6.10). Assemblage 7 was excavated from a brick-lined well/privy shaft sealed by later demolition debris. The shaft was used for refuse disposal after it ceased to function as a well or privy and the deposit remained relatively undisturbed until

it was excavated; it was the best-preserved as well as the latest deposit of the nine assemblages. Since it was the latest, the presence of English white salt-glazed stoneware was not unexpected. As noted above, white salt-glazed stoneware was developed in England during the early eighteenth century and began to appear on North American sites during the 1720s (Noel Hume 1970:114-115). It became very common during the mid-eighteenth century and, to some extent, it replaced faience tea-and-tablewares.

Assemblage 7 was dominated by drinking vessels. In New England and Chesapeake inventories and excavated sites, drinking vessels increased through time from the mid-seventeenth to early eighteenth centuries (King 1988:30), and Assemblage 7 fit this pattern. One of the English stoneware mugs was stamped "WR" for William Rex. King William III reigned from 1694 to 1702, but the "WR" excise stamp continued to be used throughout the eighteenth century, (Noel Hume 1970:113), so cannot be used for more precise dating.

With the exception of two cups, the faience vessels in this assemblage were decorated with various blue on white designs (Table 6.10). The cups had polychrome unidentifiable designs. The jar/gallipot was quite complete and was similar in form and decoration to illustrations of English jars in Noel Hume (1970 and 1977). Only one other design (the Wan-li pattern on a plate) could be definitely identified; the others were miscellaneous floral, floral landscape (as defined by Whate [1981], a design in which large-scale flowers grow out of a smaller-scale background), and landscape designs. Since the designs were incomplete, none could be identified as to place of manufacture through comparison to known examples in the literature. (And, as noted above, it is often difficult to differentiate pre-1740 English and Dutch faience.) Except for the English jar, these vessels could be of either Dutch or English

manufacture.

A small, round, red earthenware mug with a tall neck was virtually complete and was made in a shape seen in English faience and stoneware mugs of the late seventeenth and early eighteenth centuries (Rackham and Read 1924:Figures 98,101,102, 133, 140 and 141; Archer and Morgan 1977:59). This mug and many of the other redwares in Assemblage 7 had a thin glaze ranging in color from light yellow to dark red and bodies made of streaked yellow/buff and red clays. In the opinion of two contemporary potters, these vessels show characteristics that indicate the potter was trying to cut production costs by stretching his glaze with water and mixing poor clays with more desirable pastes (Gary McGowan and Sharla Azizi personal communication 1989).

ASSEMBLAGE 8

Assemblage 8 was a small, highly fragmented assemblage (Table 6.11). Since this was a yard deposit, the fragmentary nature of the vessels was expected. Food preparation vessels were the most common and twelve of the sixteen vessels (75%) were identifiable. This assemblage did have the only identifiable sprigged face from a German bellarmine jug.

ASSEMBLAGE 9

Assemblage 9 (Table 6.12) was also dominated by coarse earthenware food preparation vessels. Twenty-eight sherds mended to form approximately one-third of a large two-handled kookpot made of coarse buff earthenware with a thin yellow glaze. Eleven other sherds came from two red-bodied grapen. Of the seven faience vessels, three were decorated with purple and yellow in addition to blue. Other vessels in this assemblage were faience plates and German jugs/mugs. Of the twenty-two vessels, only twelve (54.5%) are identifiable.

TEMPORAL DIFFERENCES

The assemblages were combined into two temporal groups, circa 1650 to 1710 (Period 1) and circa 1700 to 1740 (Period 2). These divisions were based first on observed differences in the assemblages and secondly on expectations from the known historical circumstances. As noted in Chapter 2, trade with the Netherlands continued after 1664. However, during the last quarter of the century, the Netherlands suffered from a general decline in trade, caused by European wars and mercantile competition from England. In New York, according to information compiled by Rink (1986), trade between the colony and the Netherlands had fallen off by the 1680s and continued to decline throughout the remainder of the century. Change in trading connections began in 1664 but proceeded slowly until after 1674, accelerated in the 1680s, and was well under way by the end of the century. Trade did continue after the last decades of the seventeenth century, although on a smaller scale, but England persisted in exerting an ever greater control over the trade of all her colonies during the eighteenth century. Thus it was anticipated that there would be differences between material culture in the last half of the seventeenth and the first decades of the eighteenth century.

TABLE 8.13**SORTED BY TIME PERIOD (earliest to latest)**[illegible]

FIGURE 6.9
Ware Types by Period

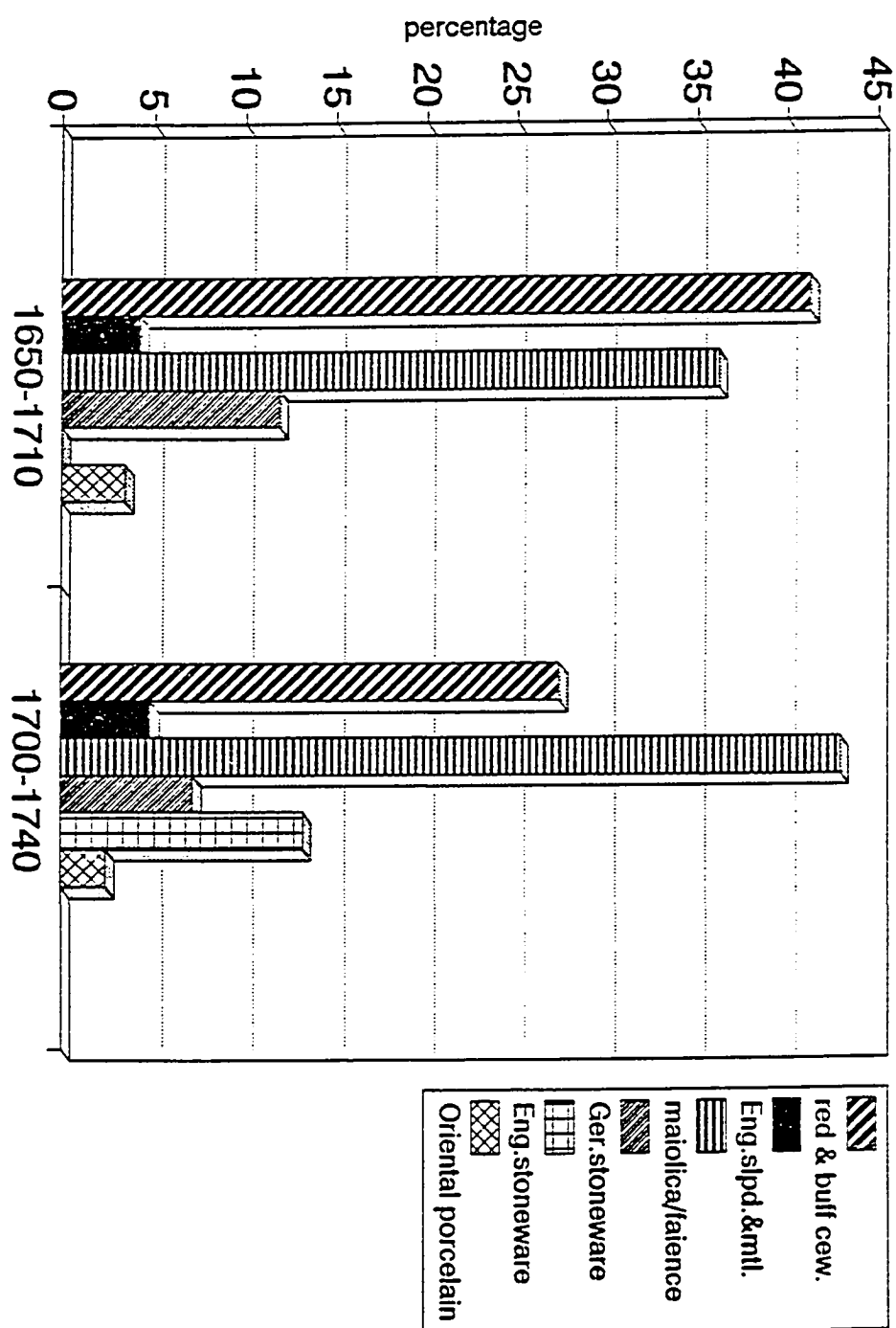


Table 6.13 shows the combined ware types. Some differences are apparent between the two periods (Table 6.13 and Figure 6.9). The most noticeable are the presence of English stonewares in the later group and differences in the relative percentages of coarse (red and buff), and refined (maiolicas and faiences), earthenwares: coarse earthenwares decrease from Period 1 to Period 2 while refined earthenwares increase. The presence of English stonewares, and the decrease of German stonewares, is primarily due to changes in ceramic production and marketing, specifically English potters' development of salt-glazed stonewares and England's increased control of colonial trade. English stonewares were probably cheaper than German stonewares, even though both were sent to the colonies by English merchants, because German stonewares were first imported to England by Dutch merchants and the added shipping and middleman costs would increase the price of the German wares, even if their initial production costs were relatively lower.

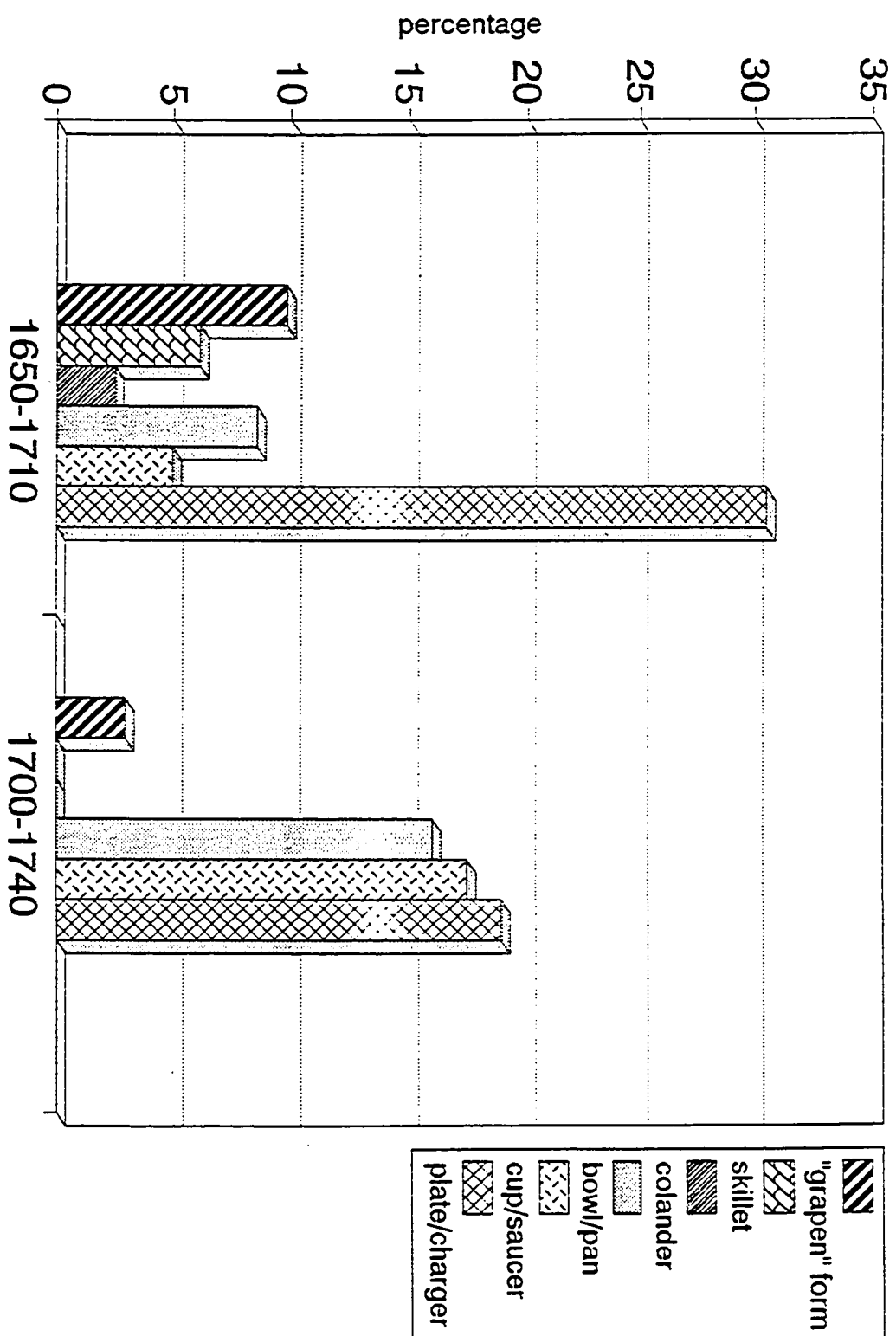
TABLE 8-14
 APPROPRIATE TYPES OF VESSEL BY FORM

Assembly #	Shape*	Footprint*	skillet	bowl	pan/bowl	colander	dish	jar	boiler	pitcher	holomware1	mug	drinking pot	holomware2	pottinger	Table*	cup	saucer	plate	charger	posset pot	TOTAL
0	1650-1700	3	0	2	1	0	0	1	0	1	0	0	0	0	0	0	0	0	4	0	0	12
1	1653-1665	0	0	0	3	0	1	0	1	0	2	0	0	0	0	0	0	0	3	0	0	10
2	1670-1700	1	0	0	1	0	0	1	2	7	0	0	0	1	0	0	0	0	7	0	0	24
3	1670-1710	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	0	0	1	0	5
4	1685-1710	0	0	2	2	0	1	1	0	0	1	1	0	1	0	0	0	2	6	1	0	18
5	1680-1700	2	1	1	0	0	0	0	1	0	1	1	0	1	0	0	0	0	3	0	0	12
6	1700-1720	1	0	0	2	0	0	1	0	0	1	0	0	0	0	1	2	0	1	0	1	11
7	1710-1720	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	1	3	0	0	7
8	1715-1740	1	0	0	4	4	0	0	7	0	1	3	6	1	4	0	6	1	6	0	0	51
TOTAL																						131

Grouped by Period	Shape*	Footprint*	skillet	bowl	pan/bowl	colander	dish	jar	boiler	pitcher	holomware1	mug	drinking pot	holomware2	pottinger	Table*	cup	saucer	plate	charger	posset pot	TOTAL
1650-1710	7	1	5	7	0	2	4	5	8	4	2	5	0	3	0	0	2	2	23	2	0	62
1700-1740	2	0	0	7	4	0	1	7	0	2	3	10	1	4	1	1	10	2	13	0	1	68
Percentages (%)																						
1650-1710	6.54	1.22	6.1	8.54	0	2.44	4.68	6.1	9.75	4.68	2.44	6.1	0	3.66	0	0	2.44	2.44	26.04	2.44	0	100.01
1700-1740	2.9	0	0	10.14	5.8	0	1.45	10.14	0	2.9	4.35	14.5	1.45	5.8	1.45	1.45	14.5	2.9	18.64	0	1.45	100.01

holomware 1" signifies vessels that, because of their fragmentary condition, could not be identified except as either a jar, bottle, or pitcher
 holomware 2" signifies vessels that, because of their fragmentary condition, could not be identified except as either a mug, drinking pot, or pottinger

FIGURE 6.10
Proportions of Vessel Forms



The earthenware differences have other causes. Coarse earthenwares were used chiefly for food preparation while refined earthenwares were used for food service. Table 6.14 and Figure 6.10 show the functions of the identified vessels within the assemblages⁷. For the coarse earthenwares, the variation between the two time periods is accounted for by the relative absence of cooking vessels in Period 2: Period 1 has a larger number of food preparation forms; Period 2 has no colanders or skillets and fewer grapen.

The refined earthenware changes are more complex. Maiolica and faience forms in Period 1 include 23 plates, two chargers, four bowls and one each teacup, jar, and dish. Period 2 has no maiolica (a time-sensitive difference); the faience forms include 15 plates, five bowls, eight cups, three jars, one porringer and the posset pot. The relative and absolute numbers of plates, chargers and dishes thus decline over time, in this sample, while the other forms increase. The plates, chargers, and dishes can be classified as flatwares while the others are hollowwares. The observed difference in percentage of faience between Periods 1 and 2 is therefore due to an increase over time in the amount of hollowwares in the assemblages rather than to a simple increase in the overall amount of faience.

The following table (6.15) shows Chi-square calculations for some of the ware types and vessels from Tables 6.13 and 6.14. Ware types and forms with low numbers were omitted from the calculations. The results show that the probability of obtaining these figures simply through chance distribution is less than 1%.

⁷. There are fewer (151), vessels listed on Table 12 than on Table 11 (203), because those vessels whose forms were unidentifiable were not included on Table 12.

Table 6.15

	CEW	ENG.SLP.	MAI.&FAI	GER.STW.	ENG.STW.	OEP	TOTAL
Period 1	49	5	43	14	0	4	115
Period 2	23	4	36	6	11	2	82
Total	72	9	79	20	11	6	197

Chi square = 20.02; 5 degrees of freedom; $p < .01$

	GRAPEN	SKILLET	PAN/BOWL	MUG/DRPT	CUP/SAU	PLATE/CHARGER	TOTAL
Period 1	8	5	7	5	4	25	60
Period 2	2	0	11	11	12	13	50
Total	10	5	18	16	16	38	110

Chi square = 19.33; 5 degrees of freedom; $p < .01$

Some of the differences observed between Periods 1 and 2 are simple temporal changes caused by developments in ceramic production and availability. These developments can be observed on many North American colonial sites during the first quarter of the eighteenth century: white salt-glazed stonewares began to appear; numbers of cups and saucers increased as tea and coffee drinking became common; and maiolica was no longer made. The differences in coarse earthenware and faience vessel forms, however, are likely to be due to the particular historical circumstances of New York City -- i.e., its initial Dutch foundation and subsequent English control.

Changes that would be expected if ceramics did become more English than Dutch (in both origin and vessel forms) include differences in the forms and ware types of locally-made and imported coarse earthenwares, and differences in the forms and decorations of faience. The coarse earthenwares are the more promising line of inquiry. The place of manufacture of faience, as noted above, can

sometimes be determined through comparison to illustrated examples of known provenience, but this is often difficult. Of the Period 2 faience vessels, only the English-style jar in Assemblage 7 could be definitely correlated with a particular city's or country's style of decoration, so it is not possible, at this time, to conclude on the basis of decoration that English faience did or did not replace Dutch faience in New York City. The forms of vessels do show some changes, which will be discussed below.

Expected changes in the coarse earthenwares should include the appearance of English buff-bodied slipwares (the most common English coarse earthenware throughout the eighteenth century) and changes in the forms of locally-made redwares. The local wares should be made in English shapes instead of in Dutch shapes.

The next section will compare the New York assemblages to contemporary Amsterdam deposits. There are two main objectives to this comparison: first, to examine the differences between the Dutch and the Dutch-American Period 1 assemblages; and second, to try to separate New York-specific variations caused by increasing English economic and social influence from changes that were common throughout northwestern Europe. Changes that appear in the Period 2 assemblages but not in contemporary Amsterdam ones should be due to increased English influence in New York City.

AMSTERDAM ASSEMBLAGES

Four assemblages from Amsterdam are listed on Table 6.16. The New York City assemblages are compared to the Amsterdam examples in Tables 6.17 and 6.18 and Figures 6.11 and 6.12. Unfortunately, three of the Amsterdam assemblages were not completely tabulated (see Appendix D), and only the presence or absence of the various forms can be determined. The Oostenburgermiddenstraat deposit, however, has been

completely analyzed (Baart et al. 1986). This domestic deposit comes from a large, vaulted cesspit behind a house and is contemporary with the Period 2 deposits in New York City. The deposit was identified as OBM 22-II and dated 1708-+/-1730 by the excavators (Baart et al. 1986:92). While firm conclusions cannot be drawn, because of the small size of the New York samples and the availability of only one deposit from Amsterdam, it is apparent that there are more similarities between the Period 1 deposits and the Oostenburgermiddenstraat deposit than there are between the latter and the Period 2 deposits.

TABLE 6.18

MINIMUM NUMBERS OF VESSELS - AMSTERDAM ASSEMBLAGES

WARE TYPES	FED CEW	DUT/UGEN CEW	FED SUPD CEW	DUT CEW MMICCA	FAIENCE	MILD BURN STIV	BL DEC STONE WARE	OCP	TOTAL									
Taan #1(1025-1050)	3+	2	7	12	5+	4	4	0	..									
Taan #2(1050-1075)	?	?	8	19	?	?	?	0	..									
Wb/jdn(1075-1700)	7+	?	?	?	2+	43	?	6/12	..									
Oshtng(1700-1730)	Raw Counts (#) 25 Percentages (%)	3 2.83	.	5 4.72	.	33 31.13	.	36 33.80	100 100									
VESSEL FORMS																		
Presence	*grape*	*hookpot*	skillet	bowl	*melkoker*	colander	dish	jar	bottle	*boompot*	mug	poelinger	*vatje*	cup	saucer	plate	drinker	TOTAL
Taan #1(1025-1050)	+					+	+		+		+		+	+		+	+	+
Taan #2(1050-1075)	+	+	+	+	+	+	+		+	+			+	+		+	+	+
Wb/jdn(1075-1700)	+	+	+	+	+		+					+		+	+	+	+	+
Oshtng(1700-1730)	Raw Counts (#) 5 Percentages (%)	2 1.94	11 10.68	5 4.65	6 5.83	2 1.94	2 1.94	2 1.84	0	0	2 1.84	0	0	21 20.4	13 12.62	29 28.16	3 2.91	103 100

TABLE 6.17
NEW YORK CITY AND AMSTERDAM - COMPARISONS OF WARE TYPES,
GROUPED BY PERIOD AND COMBINED WARE TYPES

Raw Counts (#)	ALL RED&BLUE	CEWS	ENG. SL&MIL	ILLUMIN. CEW	MAJOLICA	FAIENCE	ALL GERMAN STIMW.	ALL ENGLISH STIMW.	OEP	OTHER	TOTAL
New York 1650-1710	49	5	3	43			14	0	4	1	119
New York 1700-1740	23	4	1	36			6	11	2	1	84
Amsterdam 1700-1730	33	0	0	33			4	0	36	0	106
Percentages (%)											
New York 1650-1710	41.19	4.2	2.52	36.13			11.76	0	3.36	0.84	100
New York 1700-1740	27.38	4.76	1.19	42.00			7.14	13.1	2.38	1.19	100
Amsterdam 1700-1730	31.13	0	0	31.13			3.77	0	33.97	0	100

TABLE 6.18 NEW YORK CITY AND AMSTERDAM - COMPARISONS OF VESSEL FORMS

New Counts (#)																								
New York Period 1 1650-1710	7	'grape'	'hookfoot'	skillet	bowl	pan/bowl	canister	dish	jar	boiler	pitcher	bulb/cup	mug	dining pot	mug/dining	pot/strig	pottinger	'tallye'	cup	sauce	plate	charger	postet/pot	TOTAL
	7	1	0	7	0	2	4	5	8	4	4	5	0	3			0	0	2	2	23	2	0	82
New York Period 2 1700-1740	2	0	0	7	4	0	1	7	0	2	3	10	1	4			1	1	10	2	13	0	1	69
Amsterdam 1708-1730	5	2	11	5	6	2	2	2	0	0	0	2	0	0	0	0	0	0	21	13	29	3	0	103
Percentages (%)																								
New York Period 1 1650-1710	6.54	1.22	6.1	8.54	0	2.44	4.68	8.1	9.75	4.68	2.44	8.1	0	3.65			0	0	2.44	2.44	28.04	2.44	0	100.01
New York Period 2 1700-1740	2.0	0	0	10.1	5.6	0	14.5	10.1	0	2.8	4.35	14.49	1.45	5.6			1.45	14.5	14.5	2.9	16.94	0	1.45	100.01
Amsterdam 1708-1730	4.85	1.94	10.68	4.85	5.63	1.94	19.4	19.4	0	0	0	1.94	0	0	0	0	0	20.4	12.62	28.16	2.91	0	100	

FORMS GROUPED BY FUNCTIONS
(percentages)

	'grape' form*	skillet	bowl/cup	canister	dish	jar/bottle/pitcher	mug/dining pot/strig	'tallye'	cup/sauce	plate/charger	postet/pot	TOTAL
New York 1650-1710	8.76	8.1	8.54	2.44	4.68	23.2	8.76	0	4.68	30.48	0	100.01
New York 1700-1740	2.9	0	15.94	0	14.5	17.4	23.18	14.5	17.4	10.84	1.45	100.01
Amsterdam 1708-1730	12.62	10.68	4.85	1.94	19.4	19.4	1.94	0	33.02	31.07	0	100
New York 1650-1710	preparation	18.3	preparation	13.4	storage/service	23.17	service	0.70	service	30.48	service	TOTAL
New York 1700-1740	2.9	17.4	17.39	20.00			18.84	17.4				100.01
Amsterdam 1708-1730	25.24	6.70	1.94	1.94			31.07	33.02				100

preparation = 'grape' form, skillets and colanders
 preparation/service = bowls, pans and dishes
 storage/service = jars, bottles and pitchers
 service/bowls/canisters = mugs, dining pots, panningers, 'tallye' and postet/pot
 mugs, kild-when, fisher - fish and humpers
 service/bowls = cups and saucers

FATIGES (raw counts)

	preparation to all others	fisheries to all others
NEW YORK 1650-1710	22 to 1	37 to 1
NEW YORK 1700-1740	63 to 1	23 to 1
AMSTERDAM 1708-1730	34 to 1	45 to 1

FIGURE 6.11
Proportions of Ware Types

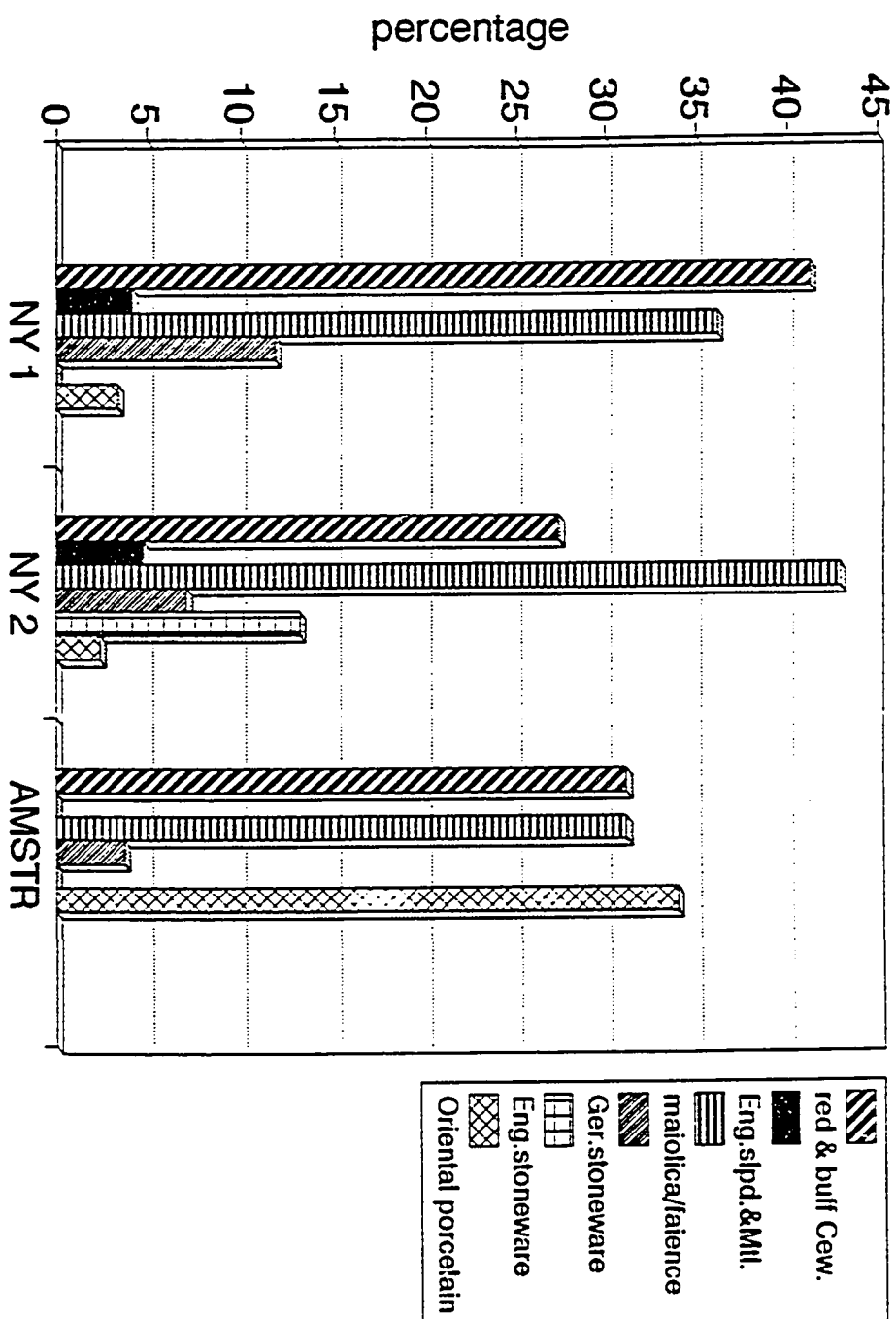
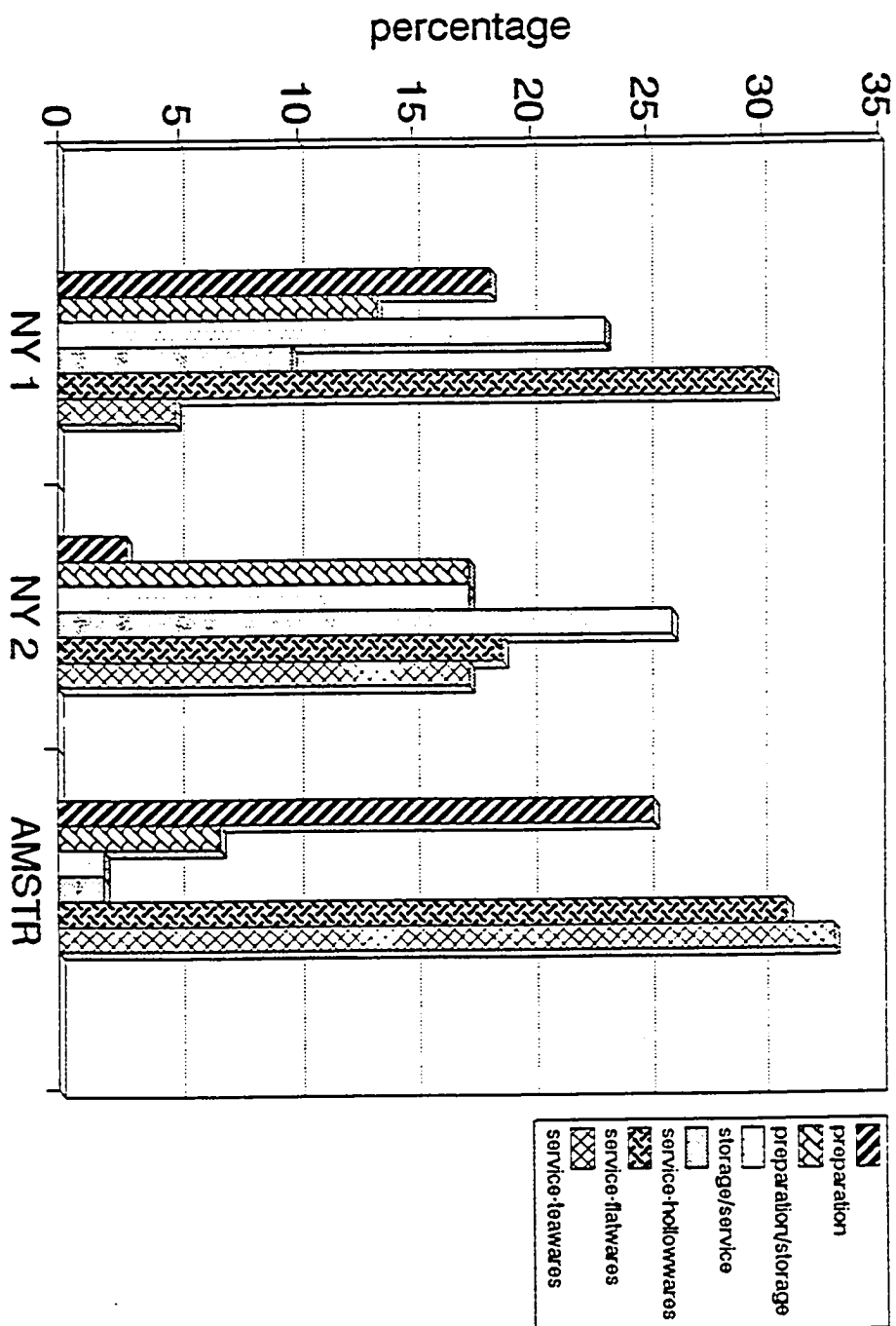


FIGURE 6.12
Proportions of Functional Groups



The similarities are more apparent in the forms than in the ware types. Comparison of the wares (Figure 6.11) reveals no clear pattern, except for the presence of English buff-bodied slipwares and salt-glazed stonewares in New York and the larger amounts of oriental export porcelain in Amsterdam. Comparison of the forms and functions shows points of correspondence (Figure 6.12). The Period 1 and Oostenburgermiddenstraat assemblages have higher percentages of Dutch-form food preparation vessels; Period 2 has only two grapen and no skillets or colanders (Table 6.18). Grapen, skillets, and colanders are characteristic Dutch vessels. Their presence in the 1650-1700 New York City assemblages suggests that Dutch food preparation techniques were common during this period. The two grapen in the Period 2 assemblages are both much less complete than the vessels from Period 1, and their presence could be attributable either to use during the later period or inclusion of earlier, redeposited sherds in Assemblages 5 and 7.

Period 1 and the Oostenburgermiddenstraat deposit have relatively more flatwares (specifically plates), than Period 2 (Table 6.18). The relative lack of flatwares in Period 2 most probably reflects the use of pewter plates by the Carre family (Assemblage 7, the largest deposit in Period 2). The problem of non-preserved metal artifacts will be discussed in Chapter 7.

Preparation/storage vessels (bowls, pans, and dishes) are more difficult to interpret. At least part of the difficulty lies in the fragmentary nature of the New York artifacts: bowls and pans are often difficult to distinguish from each other when vessels are less than 10 or 20% complete, as was the case with many of the New York vessels. A "pan" as defined by Beaudry et al. (1983:35) is "a coarse earthenware cooking vessel, roughly in the shape of an inverted, truncated cone, less than 10 in. in diameter";

pans over 10 inches are "milk pans ... used for cooking milk, as a wash basin and probably for cooking". As far as can be determined from the available literature and from personal observation, neither of these forms is present in Dutch ceramic assemblages. It thus appears that pans are distinctively British, rather than Dutch, and their presence in New York City assemblages would suggest British food preparation techniques. The four vessels identified as "pan/bowl" (Table 6.14) were all from Assemblage 7, the latest deposit, but they could not be unequivocally identified as pans since they were so fragmentary.

Storage/service vessels (jars, bottles and pitchers), are more common in both the New York City assemblages than in the Amsterdam example. The large number in Period 1 is at least in part a function of the bottles in Assemblage 6 (the Lovelace Tavern). Bottles are present in at least the two earliest assemblages from Amsterdam (Table 6.16), and ceramic bottles might thus be a time-sensitive, rather than function-sensitive, artifact group. No pitchers were identified in the Amsterdam assemblages, but, since pitchers appear in genre paintings (Vermeer's "The Kitchen Maid" for example), they cannot be eliminated as a Dutch form.

The absence of Iberian oil jars from the Amsterdam assemblages and from genre paintings (at least those used in this study), cannot be explained at the present time. The Netherlands continued to trade with Spain and Portugal, in spite of wars, and Portuguese faience has been found in Amsterdam (Baart 1987). More site information is needed before the absence of ollas from the Netherlands can be confirmed.

Hollow tablewares made of ceramics (drinking vessels, excluding cups and saucers), as noted above, increased over time on British-American sites. Hollowwares are more common in Period 2 than in Period 1 in New York City and make up less than 2% of the Oostenburgermiddenstraat assemblage. It

cannot be inferred that the higher number of hollowwares in Period 1, compared to the Amsterdam assemblage, indicates a more British than Dutch pattern for New York, because half (4) of the vessels in this category come from the Lovelace Tavern. Taverns in general have a preponderance of drinking-related artifacts (Rockman and Rothschild 1984), so the results are possibly skewed.

Teawares most definitely increased during the late seventeenth and early eighteenth centuries. Tea was introduced into Europe from the Orient in the mid-sixteenth century but did not become a popular drink for another hundred years (Roth 1988:440). Tea drinking increased throughout the last half of the seventeenth century and tea became one of the most popular drinks during the next few decades: in 1700, England imported 20,000 pounds of tea but in 1800 the total amount was 2,000,000 pounds (McGee 1984:215). Tea drinking became popular in the Netherlands during the same time period (Van Nierop 1983:10). Coffee followed in the early seventeenth century and coffee houses were established on the Continent and in England by mid-century (McGee 1984:220).

CERAMIC SUMMARY

The Oostenburgermiddenstraat assemblage and the Period 1 assemblages from New York City are more similar than the former and the Period 2 New York assemblages, in spite of the fact that Period 2 and the Amsterdam site are both circa 1700-1740. Period 1 ceramic assemblages show Dutch characteristics in food preparation and food service forms. These characteristics -- distinctive forms of food preparation vessels and high proportions of ceramic plates -- are typical of Dutch ceramic assemblages throughout the seventeenth and early eighteenth centuries. Although the Oostenburgermiddenstraat assemblage was the only one of the Dutch assemblages that was quantified, as noted above, the

earlier ceramic assemblages from the Taanstraat and Waterlooplein assemblages share these characteristics (Table 6.16 and Appendix D).

In spite of the conquest of New Amsterdam by the English in 1664, and their legal acquisition of New Netherland in 1674, food-related ceramics in New York City remained fundamentally Dutch into the early eighteenth century.

Most of the Period 2 ceramics used in this study came from the deposit associated with the Carre family. The Carres were Huguenots and it is possible that the absence of Dutch ceramics among their refuse is not typical of early eighteenth century families of Dutch descent (this will be discussed further in Chapter 7). Nevertheless, based on the available evidence, it appears that, after 1700, English ceramics began to dominate the New York City market; by 1730/40 imported ceramics were predominantly English and locally-manufactured coarse earthenwares were made in English forms.

FAUNAL ASSEMBLAGES

The faunal material from the Stadt Huys and 7 Hanover Square assemblages was intensively analyzed as part of a National Science Foundation grant to Rothschild (Rothschild 1990). The domestic mammal bones were examined in New York City while the rest of the collection was identified at the Zoological Identification Centre of the National Museum of Natural Science, hereafter referred to as the ZIC, (Balkwill and Cumbaa 1988). The Broad Street material was identified by Haskel Greenfield as part of the preparation of the site report (Grossman 1985).

The faunal data is presented in Tables 6.19-6.24. Tables 6.19, 20 and 21 show numbers of mammal, reptile, fish and bird bones by assemblage. Due to depositional circumstances, the numbers of bones and the percentages of

identifiable specimens vary considerably between assemblages (Table 6.22). In addition, for the most part, the bones identified by the ZIC show a higher percentage of identifiable specimens. The Assemblage with the largest identifiable portion was 7: this domestic deposit was excavated from a relatively undisturbed, closed well shaft (see above), and the degree of preservation is not unusual for this type of deposit. Assemblage 6, the Lovelace Tavern, had the largest number of bones, but many were unidentifiable. The Lovelace deposits were probably adversely affected by the destruction of the Tavern and subsequent construction of later buildings, as well as by their initial deposit on the floor of the basement.

The measurement used for the faunal material is Number of Identified Specimens (NISP) rather than Minimum Number of Individuals (MNI). MNI is useful for those archaeological or paleontological assemblages in which it can be assumed that whole animals were incorporated into the relevant deposits. It is not an appropriate measure for most historic period sites because most animals, especially large domestic mammals, were not purchased and/or consumed as units; meat was most usually bought by the piece and the presence of a fragment of cow pelvis does not necessarily imply the presence of the whole cow in a deposit or even on a site. However, it is likely that at least some New Amsterdam householders continued the Dutch urban pattern of purchasing a whole cow and/or pig in the fall for household preservation (Chapter 5), but there is not sufficient evidence to deem this the dominant pattern of meat procurement. Birds and fish, since they are generally smaller than most mammals, were likely to have been consumed as units, but, in the interests of consistency and comparability, NISP will be used here for all types of animals.

Slightly different categories were used to classify the

Broad Street and the Stadt Huys/7 Hanover Square mammal bones (Table 6.19). The Broad Street identifications included the categories "small artiodactyl", and "small, medium and large mammals," but bones from the other sites were identified simply as "unidentified mammal". All categories that were not identified to species level are grouped together as "Unidentifiable" on Table 6.22. The major domestic mammals found in the New Amsterdam/New York deposits are cow, pig, and caprines. "Caprines" include both sheep and goats; it is difficult to distinguish sheep from goat bones, especially when the collection is fragmentary, and most zooarchaeologists use the category of sheep/goat when specific identification is problematical. For these assemblages, however, the overwhelming majority of the caprine bones were most probably sheep. The ZIC report noted that, for all the seventeenth century deposits from Hanover Square, there were 97 sheep bones identified compared to four goat specimens (Balkwill and Cumbaa 1988:1.4). The Broad Street report concluded that all of the caprines at the site were sheep (Grossman 1985:IX-7). However, the term caprine will be used here because at least some of the bones were positively identified as goats.

TABLE 6.19 MAMMAL AND REPTILE - Number of Identified Specimens (NIS)

	CAPRINE	COW	PIG	DEER	FAUJH	GIY/SOIL	DOG/CAT	TURKLE	DAI	SM ALLIG	SM MAM	MED MAM	LING MAM	UNIDENT.	TOTAL
ASSEMBLAGE 1	3	6	5	2	0	0	0	1	0	0	0	14	7	50	88
ASSEMBLAGE 2	21	23	24	1	2	0	1	0	18	0	2	60	11	71	242
ASSEMBLAGE 3	0	5	0	0	0	0	0	1	0	1	0	0	0	5	12
ASSEMBLAGE 4	35	38	12	1	0	0	1	1	0	0	3	23	18	70	202
ASSEMBLAGE 5	21	10	2	0	6	0	4	0	0	0	16	10	22	130	230
ASSEMBLAGE 6	32	40	96	2	2	0	8	1	11	0	0	0	0	1018	1211
ASSEMBLAGE 7	35	40	22	0	0	3	0	3	0	0	0	0	0	335	438
ASSEMBLAGE 8	1	2	5	0	0	0	0	0	0	0	0	0	0	63	71
ASSEMBLAGE 9	1	1	2	0	0	0	0	0	0	0	0	0	0	22	26
TOTAL	149	165	160	6	10	3	14	7	29	1	21	124	58	1765	2520

TABLE 6.20

BIRD BONES by Number of Identified Specimens (NIS)

	CHICKEN	TURKEY	CHICKEN/ TURKEY	BOBWHITE GOOSE	CHICK/GOOSE FAMILY	CANADA GOOSE	SNOW/CAN GOOSE	DOMES GOOSE	UNIDENT. GOOSE	DOMES, MALIARD	WILD DUCK SP.	UNIDENT. DUCK	PASNGH PIGEON	UNIDENT. PIGEON	SHOREBIRD /GULL	UNIDENT. BIRD	TOTAL
ASSEMBLAGE 1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	20
ASSEMBLAGE 2	31	3	0	0	0	0	0	0	1	0	0	0	0	0	2	57	84
ASSEMBLAGE 3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	4	5
ASSEMBLAGE 4	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
ASSEMBLAGE 5	44	0	0	0	0	0	0	0	0	0	0	0	0	0	1	11	56
ASSEMBLAGE 6	79	6	1	2	2	1	1	2	11	5	7	4	6	1	1	268	415
ASSEMBLAGE 7	12	2	0	0	0	0	0	3	2	0	0	1	4	1	0	33	58
ASSEMBLAGE 8	3	0	0	0	0	0	0	0	0	0	0	0	3	0	0	2	6
ASSEMBLAGE 9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	175	15	1	2	2	1	1	5	14	5	7	5	13	2	4	410	662

TABLE 6.21

FISH DATA BY ASSEMBLAGE - Number of Identified Specimens (NIS)

	SHEEPSHEAD	STURGEON	TAUOG	AMERICAN	SCUP	FLATFISH	ATLANTIC	BUCK SEABASS	STRIPED BASS	WHITE PERCH	WHITE PERCH	DRUMS	SPATULAE	UNIDENT.	TOTAL
	BASS			SHAD			COD						FAMILY	FISH	
ASSEMBLAGE 1	7	1	0	0	0	0	0	0	0	1	0	0	4	48	61
ASSEMBLAGE 2	6	0	0	0	0	0	0	0	0	0	0	0	0	123	129
ASSEMBLAGE 3	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4
ASSEMBLAGE 4	0	19	1	0	0	0	0	0	0	1	0	0	1	274	286
ASSEMBLAGE 5	2	6	0	0	0	0	0	0	0	2	2	2	0	141	153
ASSEMBLAGE 6	12	4	3	1	2	3	4	0	0	0	0	0	0	111	140
ASSEMBLAGE 7	70	23	4	0	1	0	0	2	0	0	0	0	0	106	206
ASSEMBLAGE 8	8	2	0	0	0	0	0	1	0	0	0	0	0	65	74
ASSEMBLAGE 9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	103	53	0	1	3	3	4	3	0	4	2	5		892	1143

TABLE 6.22 NUMBERS OF UNIDENTIFIABLE AND IDENTIFIABLE BONES

Raw Counts (#)												
ASSEMBLAGE	MAMMALS			BIRDS			FISH			ALL BONES (w/o turtle)		
	id'ed	unident	total	id'ed	unident	total	id'ed	unident	total	id'ed	unident	total
1 1653-1685	16	71	87	3	17	20	13	48	61	32	136	168
2 1685-1710	90	152	242	37	57	94	6	123	129	133	332	465
3 1670-1710	5	6	11	1	4	5	0	4	4	6	14	20
4 1710-1720	87	114	201	6	0	6	22	274	296	115	388	503
5 1700-1720	73	157	230	45	11	56	12	141	153	130	309	439
6 1670-1706	191	1019	1210	129	286	415	29	111	140	349	1416	1765
7 1715-1740	100	335	435	25	33	58	100	186	286	225	554	779
8 1650-1700	6	63	71	6	2	8	9	65	74	23	130	153
9 1690-1700	4	22	26	0	0	0	0	0	0	4	22	26
TOTAL	574	1839	2513	252	410	662	191	852	1143	1017	3301	4318

Percentages (%)												
ASSEMBLAGE	MAMMALS			BIRDS			FISH			ALL BONES (w/o turtle)		
	id'ed	unident	total	id'ed	unident	total	id'ed	unident	total	id'ed	unident	total
1 1653-1685	18.39	81.61	100	15	85	100	21.31	78.69	100	31.55	68.45	100
2 1685-1710	37.19	62.81	100	39.36	60.64	100	4.65	95.35	100	46.02	53.98	100
3 1670-1710	45.45	54.55	100	20	80	100	0	100	100	30	70	100
4 1710-1720	43.28	56.72	100	100	0	100	7.43	92.57	100	31.61	68.39	100
5 1700-1720	31.74	68.26	100	80.36	19.64	100	7.84	92.16	100	42.6	57.4	100
6 1670-1706	15.79	84.21	100	31.08	68.92	100	20.17	79.83	100	19.77	80.23	100
7 1715-1740	22.99	77.01	100	43.1	56.9	100	34.97	65.03	100	28.88	71.12	100
8 1650-1700	11.27	88.73	100	75	25	100	12.16	87.84	100	15.03	84.97	100
9 1690-1700	15.38	84.62	100	0	0	0	0	0	0	15.38	84.62	100

SORTED BY PERIOD

Percentages (%)												
ASSEMBLAGE	MAMMALS			BIRDS			FISH			ALL BONE (w/o turtle)		
	id'ed	unident	total	id'ed	unident	total	id'ed	unident	total	id'ed	unident	total
8 1650-1700	11.27	88.73	100	75	25	100	12.16	87.84	100	15.03	84.97	100
1 1653-1685	42.53	57.47	100	15	85	100	21.31	78.69	100	31.55	68.45	100
6 1670-1706	15.79	84.21	100	31.08	68.92	100	20.17	79.83	100	19.77	80.23	100
3 1670-1710	54.55	45.45	100	20	80	100	0	100	100	30	70	100
2 1685-1710	70.66	29.34	100	39.36	60.64	100	4.65	95.35	100	46.02	53.98	100
9 1690-1700	15.38	84.62	100	0	100	100	0	100	100	15.38	84.62	100
5 1700-1720	56.52	43.48	100	80.36	19.64	100	7.84	92.16	100	42.6	57.4	100
4 1710-1720	65.17	34.83	100	43.1	56.9	100	7.43	92.57	100	31.61	68.39	100
7 1715-1740	22.99	77.01	100	43.1	56.9	100	34.97	65.03	100	28.88	71.12	100

TOTALS BY CLASS

ASSEMBLAGE	MAMMALS		BIRDS		FISH		TOTAL (w/o turtle)	
	#	%	#	%	#	%	#	%
8 1650-1700	71	46.4	6	5.23	74	48.37	153	100
1 1653-1685	87	51.79	20	11.9	61	36.31	168	100
6 1670-1706	1210	68.56	415	23.51	140	7.93	1765	100
3 1670-1710	11	55	5	25	4	20	20	100
2 1685-1710	242	52.04	94	20.22	129	27.74	465	100
9 1690-1700	26	100	0	0	0	0	26	100
5 1700-1720	230	52.39	56	12.76	153	34.85	439	100
4 1710-1720	201	39.96	6	1.19	296	58.85	503	100
7 1715-1740	435	55.84	58	7.45	286	36.71	779	100
TOTAL	2513	58.2	662	15.33	1143	26.47	4318	100

TABLE 6.23 NUMBERS OF IDENTIFIABLE BONES (NISP)

Raw Counts (#)										
ASSEMBLAGE	CAPRINE	CATTLE	PIG	DEER	RABBIT	SQUIRREL	DOM.FOWL	WILD FOWL	FISH	TOTAL
1 1653-1685	3	6	5	2	0	0	3	0	13	32
2 1685-1710	21	23	24	1	2	0	34	3	6	114
3 1670-1710	0	5	0	0	0	0	0	1	0	6
4 1710-1720	35	38	12	1	0	0	4	2	22	114
5 1700-1720	21	10	2	0	6	0	44	1	12	96
6 1670-1706	32	40	96	2	2	0	95	34	29	330
7 1715-1740	35	40	22	0	0	3	16	9	100	225
8 1650-1700	1	2	5	0	0	0	3	3	9	23
9 1690-1700	1	1	2	0	0	0	0	0	0	4

Percentages (%)										
ASSEMBLAGE	CAPRINE	CATTLE	PIG	DEER	RABBIT	SQUIRREL	DOM.FOWL	WILD FOWL	FISH	TOTAL
1 1653-1685	9.38	18.75	15.63	6.25	0.00	0.00	9.38	0.00	40.63	32
2 1685-1710	18.42	20.18	21.05	0.88	1.75	0.00	29.82	2.63	5.26	114
3 1670-1710	0.00	83.33	0.00	0.00	0.00	0.00	0.00	16.67	0.00	6
4 1710-1720	30.70	33.33	10.53	0.88	0.00	0.00	3.51	1.75	19.30	114
5 1700-1720	21.88	10.42	2.08	0.00	6.25	0.00	45.83	1.04	12.50	96
6 1670-1706	9.70	12.12	29.09	0.61	0.61	0.00	28.79	10.30	8.79	330
7 1715-1740	15.56	17.78	9.78	0.00	0.00	1.33	7.11	4.00	44.44	225
8 1650-1700	4.35	8.70	21.74	0.00	0.00	0.00	13.04	13.04	39.13	23
9 1690-1700	25.00	25.00	50.00	0.00	0.00	0.00	0.00	0.00	0.00	4

SORTED BY PERIOD

Raw Counts (#)										
ASSEMBLAGE	CAPRINE	CATTLE	PIG	DEER	RABBIT	SQUIRREL	DOM.FOWL	WILD FOWL	FISH	TOTAL
8 1650-1700	1	2	5	0	0	0	3	3	9	23
1 1653-1685	3	6	5	2	0	0	3	0	13	32
6 1670-1706	32	40	96	2	2	0	95	34	29	330
3 1670-1710	0	5	0	0	0	0	0	1	0	6
2 1685-1710	21	23	24	1	2	0	34	3	6	114
9 1690-1700	1	1	2	0	0	0	0	0	0	4
5 1700-1720	21	10	2	0	6	0	44	1	12	96
4 1710-1720	35	38	12	1	0	0	4	2	22	114
7 1715-1740	35	40	22	0	0	3	16	9	100	225

Percentages (%)										
ASSEMBLAGE	CAPRINE	CATTLE	PIG	DEER	RABBIT	SQUIRREL	DOM.FOWL	WILD FOWL	FISH	TOTAL
8 1650-1700	4.35	8.70	21.74	0.00	0.00	0.00	13.04	13.04	39.13	23
1 1653-1685	9.38	18.75	15.63	6.25	0.00	0.00	9.38	0.00	40.63	32
6 1670-1706	9.70	12.12	29.09	0.61	0.61	0.00	28.79	10.30	8.79	330
3 1670-1710	0.00	83.33	0.00	0.00	0.00	0.00	0.00	16.67	0.00	6
2 1685-1710	18.42	20.18	21.05	0.88	1.75	0.00	29.82	2.63	5.26	114
9 1690-1700	25.00	25.00	50.00	0.00	0.00	0.00	0.00	0.00	0.00	4
5 1700-1720	21.88	10.42	2.08	0.00	6.25	0.00	45.83	1.04	12.50	96
4 1710-1720	30.70	33.33	10.53	0.88	0.00	0.00	3.51	1.75	19.30	114
7 1715-1740	15.56	17.78	9.78	0.00	0.00	1.33	7.11	4.00	44.44	225

TABLE 6.24 FAUNAL MATERIAL GROUPED BY PERIOD

NISP RAW COUNTS

		Caprine	Cattle	Pig	Deer	Rabbit	Squirrel	Dom. Fowl	Wild Fowl	Fish	Total
ca. 1650-1710	(1-3,6,8,9)	58	77	132	5	4	0	135	41	57	509
ca. 1700-1740	(5,4,7)	91	88	36	1	6	3	64	12	134	435

NISP PERCENTAGES

		Caprine	Cattle	Pig	Deer	Rabbit	Squirrel	Dom. Fowl	Wild Fowl	Fish	Total
ca. 1650-1710	(1-3,6,8,9)	11.39	15.13	25.93	0.98	0.79	0	25.52	8.06	11.20	100.00
ca. 1700-1740	(5,4,7)	20.92	20.23	8.28	0.23	1.38	0.69	14.71	2.76	30.80	100.00

RATIOS

		Cattle : Caprine	Cattle : Pigs	Fish : Mammals	Domestic : Wild Fowl
ca. 1650-1710	(1-3,6,8,9)	1 to 0.75	0.58 to 1	0.21 to 1	3.29 to 1
ca. 1700-1740	(5,4,7)	1 to 1.03	2.44 to 1	0.60 to 1	5.33 to 1

PERCENTAGES

		Domestic Mammal	Wild Mammal	ALL Domesticates	ALL Wild	Wild w/o Fish
ca. 1650-1710	(1-3,6,8,9)	52.46	1.77	78.98	21.02	9.82
ca. 1700-1740	(5,4,7)	49.43	2.3	64.14	35.86	5.06

Wild mammals identified from these deposits included deer, rabbit, grey squirrel, and rat (Table 6.19), the last almost certainly not a food source. The presence of rat bones in Assemblages 2 and 6 indicates that these deposits were relatively open and accessible to rodents. There were at least three rats in Assemblage 2 (Grossman 1985: Table IX-4) and another three in Assemblage 6 (Balkwill and Cumbaa 1988: Table 1.20). Rabbit and squirrel could have been easily hunted or snared in fields and woods close to the town; they would have provided dietary diversity. The proportions of deer varied considerably within the deposits from a high of 6.25% of the identifiable bone in Assemblage 1 to 0% in Assemblages 3,5,7,8 and 9 (Table 6.23).

Turtle bone fragments were not identified to species level for the Broad Street deposits, but painted turtle (Assemblage 6) and diamondback terrapin and box turtle (Assemblage 7) were identified by the ZIC. Diamondback terrapin is reputed to have a pleasant taste, but the other two were more likely collected for their shells (Balkwill and Cumbaa 1988:1.12 and 2.11).

The birds (Table 6.20) included domestic and wild species, but chicken, followed by turkey and goose, were consistently the most important. Assemblage 6, the Lovelace Tavern, had the largest number of bird bones and had by far the greatest number of different species. Species number is affected by sample size (Grayson 1978; Rothschild 1989:95-96 and 1990:162), but the variety in this deposit was probably also due to the kinds of meals served in the Tavern. Of the 330 identifiable bones from this deposit, 129 (39%), were birds; the other possible tavern deposit (Assemblage 5), also had a high percentage (46.88%), of bird bones but from a much smaller number (96) of identified specimens (Table 6.23). It is quite possible that birds were a common tavern meal. The bird bones from Assemblage 5, (and the other Broad Street sites), showed little variety, but this was

perhaps due to the less intensive analysis they received rather than to actual differences in the numbers of species present: the ZIC analysts had access to a much larger and more varied type collection than did the analysts who identified the bird bones from Broad Street.

The fish bones (Table 6.21) came from coastal or estuarine rather than deep sea or fresh water species, with the exception of Atlantic cod in the Lovelace Tavern deposits (Balkwill and Cumbaa 1988:1.2 and .41). The most common species was the sheepshead⁸, which feeds on mussel beds in shallow waters. The literature states that it is not a common fish in New York waters at the present time (Balkwill and Cumbaa 1988:1.12), but it is in fact still caught by amateur fishermen in the bays off the south shore of Long Island (Stephen Lee personal communication 1991). The bones identified as "Sparidae family" in the Broad Street deposits were most probably also sheepshead: the analyst says that they "compared well" with the limited comparative specimens available to him (Grossman 1985:Appendix L). The next most common fish was the striped bass, currently found in the Hudson River and along the coast. Tautog, like sheepshead, are associated with shellfish beds. They prefer habitats around breakwaters, piers and docks; at present, they are plentiful in Southern New England coastal waters (Balkwill and Cumbaa 1988:1.13) but are also caught off the Jersey shore.

Assemblage 6 again had the greatest variety of species. The diversity in Assemblage 6 does not seem to be caused by factors of size, post-depositional disturbance, or analysis. Assemblages 4, 5, and 7 had larger amounts of fish bones (Table 6.21); the percentage of fish in the total bone of

⁸ The scientific name for sheepshead is Archosargus probatocephalus; for striped bass Morone saxatilis; and for tautog Tautoglabrius adspersus.

Assemblage 6 was low (7.93% of all bone and 8.79% of identified bone), and it had a high percentage of unidentifiable fish bones (Table 6.22). Both Assemblages 6 and 7 were analyzed by the ZIC, in contrast to Assemblages 4 and 5, (whose high percentages of unidentifiable fish are at least partly due to the lack of comparative specimens available to analysts). Assemblage 7 was a sealed feature while 6 was a deposit in a basement, so bone preservation should be greater in the former; Assemblage 7 did have a higher ratio of identifiable fish (Table 6.22), but 7 had only five identified species while 6 had seven identified species (Table 6.21). Thus the diversity in the Lovelace Tavern assemblage is almost certainly a reflection of the varied fare offered to its customers.

With the exceptions of Assemblages 6 and 9, fish bones were more than 20% of each faunal deposit; the three latest deposits have more than 33% fish and in Assemblage 4 the percentage almost reached 60% (Table 6.22). Sheepshead was the most plentiful fish, except in Assemblages 4 and 5 (Table 6.21). Striped bass was the next most numerous. As part of the NSF-funded faunal study, the ZIC analyzed bones from deposits at three New York City sites dating between 1625 and 1760; sheepshead followed by striped bass were consistently the most abundant fish remains (Balkwill and Cumbaa 1988: 1.41 and 2.77; Rothschild 1990:148ff).

Some fish were undoubtedly caught by individuals for their own household's consumption, but a market place for fish was established in 1691 on the dock opposite the City Hall (in close proximity to all three sites) where fishermen sold catches from their boats (De Voe 1970[1862]:109-110), although a market building was apparently not constructed until 1720 (De Voe 1970[1862]:113). The close proximity of the market might be one reason for the high percentages of fish in the Period 2 deposits. Deep sea commercial fishing did not become well-established until the 1770s when it was

encouraged by the municipal government through a series of bounties offered for large catches (De Voe 1970[1862]:118).

Table 6.23 shows the numbers of identifiable bones in each assemblage. Table 6.24 shows the identified bones grouped by period. There is a difference between Periods 1 and 2 in the percentages of domestic mammal bones recovered: pig declined and cattle and caprines increased (Table 6.24). The decrease is not at all ambiguous. Pig decreased from 25.93% to 8.28% while cattle and caprines increased from 15.13 and 11.39% to over 20%. It is likely that the increase in cattle and caprines relative to pigs was due to changes in animal husbandry techniques caused by changes both in land use and in numbers of European settlers and domesticated animals in the colony. As Miller (1984) has noted for the Chesapeake region, animal husbandry techniques in colonial situations often became simplified (Chapter 1). Cattle and pigs were allowed to range freely and domestic animals in general received less care. There is evidence from the writings of Van der Donck and others (Chapter 5), that the same simplifications occurred in the New Netherlands. Pigs adapted most successfully to this change, sheep the least (De Sille 1920:98; Van der Donck 1968:41-42). Cattle remained relatively scarce until the last quarter of the seventeenth century. Their longer gestation period and, generally, single offspring contributed to the time it took to increase the numbers of the species to the point where animals were routinely slaughtered. As a corollary, it is probable that few young sheep or cattle were slaughtered in the early years compared to the late 1600s and 1700s. However, information about the age at death of the domestic animals included in this study was not routinely reported, so this question awaits further analysis.

Another difference between the early and later periods was a decrease in the number of wild birds. Environmental

changes that eliminated the habitats of wild species and the increased availability of domestic birds were probably the causes. Chicken was the most common bird, although other domestic and wild birds provided dietary diversity. Poultry was available in the markets (Chapter 5), and chickens and other fowl were quite possibly raised in the yards of townspeople. Wild birds would also have been obtainable by purchase in the markets, or by hunting on the rivers and marshlands.

The percentage of wild mammals increased slightly from 1.77% to 2.3% but this was due to the presence of animals (squirrels and rabbits) that would have been available to town dwellers. The rabbit bones were found in Assemblage 5 and the squirrel in Assemblage 7. Identified deer bones declined from five to one.

The relative proportions of fish bones increased over time when the assemblages are combined, although Assemblages 8 and 1 from Period 1 have high percentages of fish. The overall increase might be due in part to easy access to fish provided by the nearby fish market, but there is another possible reason that has to do with the nature of preserved fish. Dried or salted cod and salted herring were standard rations for seventeenth-century sailors and soldiers; dried fish was part of the rations sold by the Dutch West India Company to Reverend Michaelius (Chapter 5). Salted herrings were frequently portrayed in Dutch genre paintings and herring is still a common food in the Netherlands, but no herring bones and few cod bones were identified from the Manhattan deposits. Herring is a small fish, however, and its bones are not likely to be preserved in the ground in great quantities. Furthermore, experiments (Jones 1986) have shown that most bones from small fish, if ingested, do not survive in recognizable forms: only approximately 10% of the bones from fresh and smoked herring eaten by a man, dog, and pig (each ate the entire fish) passed through the animal's

digestive tracts in recognizable forms (the man had the lowest amount of recognizable bones, only two out of eighty, probably because he chewed the bones more thoroughly than the other animals).

There is little information available about excavated fish from Amsterdam, but four eighteenth-century cesspits from the city yielded fish proportions -- based on weight rather than numbers of bones -- of less than 1% of the total fish bones for herring (Baart et al. 1986:122). Since this is a much lower percentage of herring than would be expected, it is probable that herring is almost always underrepresented in archaeological assemblages. Cod comprised between 79 and 88% of the Amsterdam fish bone weight, but there is no indication if this was fresh or preserved fish. The dearth of fish species usually consumed in dried and salted forms from both Periods 1 and 2 could indicate a preference for fresh fish in New York City, or could be the result of lack of preservation in archaeological deposits, although the high percentages of cod in the Amsterdam assemblages indicates that this fish at least should be recovered. Following the same line of thought, the relative increase in fish bones in Period 2 might indicate not a simple increase in fish consumption, but an increase in consumption of fresh fish as opposed to preserved fish.

No faunal data were available for the Taan and Waterlooplein deposits discussed above. The cesspit from the Oostenburgermiddenstraat site had only 135 grams of bone, an amount too small for the determination of quantitative differences (Baart et al. 1986:122).

Rothschild has studied New York City animal utilization, as evidenced in faunal material, using some of the same deposits discussed here (Rothschild 1989 and 1990; Rothschild and Balkwill 1993). The time span studied by Rothschild was longer (1624-1875) and was divided into four

periods: 1624-1700; 1701-1760; 1761-1820; and 1821-1875 (Rothschild 1990:144-145). The broad pattern that she saw was the dominance of domestic mammal bone in all the assemblages but increased percentages of fish and, to a somewhat lesser extent, fowl (especially chickens) after 1760 (Rothschild 1990:146). The results that she obtained from comparing ratios of cow to caprine and pig bones for the earliest period were somewhat different than those cited here; Rothschild found that cow bones were more frequent than pig in the deposits she used (Rothschild 1990:146-7). However, landfill deposits from Hanover Square were included in her sample and this might be the reason for the difference, for she notes that "there are a surprising number of skeletal elements that indicate nonfood or questionable food use, such as cranial fragments, including horns, and bones from the animal's extremities" (Rothschild 1990:147). It is possible that nonfood-related bones, which were either butchering refuse or the by-products of manufacturing processes that used horn or bone, were dumped in the landfill because it would have been a suitable place to deposit such garbage (Rothschild 1990:158). It is also possible that domestic mammal bones in the landfill, since most of the fill was deposited shortly before 1697 when the deposit was sealed (Rothschild 1990:140), already represent the pattern that was seen in the present study in which cow bones outnumbered those of pigs in Period 2.

Rothschild also did a more detailed comparison of some deposits. For the first two periods (1624-1760) she found that there was a pattern of a diet in which cattle, pig, sheep, chicken, and either sheepshead or striped bass were the central elements. This holds regardless of deposit type or site. However, there is considerable variation in the other elements of the diet, and these seem to fall into two patterns ... one making use mainly of fish as a supplement to the five core elements, and the other focusing on domestic birds in addition to the core (Rothschild 1990:149).

This pattern also holds true for the deposits used in the present study (Tables 19-23). The same five core elements were seen and there was the same pattern of supplemental use of either various fishes or various birds. For example, Assemblages 2, 4, and 5, (from Broad Street and not included in Rothschild's sample), had high percentages of cattle, sheep, pigs (except for Assemblage 5), chickens, and sheepshead and/or striped bass, but, as additions, Assemblages 2 and 5 had high percentages of birds while Assemblage 4 had a low overall percentage of birds and a high percentage of fish.

FAUNAL SUMMARY

By at least the third quarter of the seventeenth century, New Yorkers depended upon introduced European animals. Pigs, cows, caprines, and chickens provided the bulk of the animal protein. Conversely, the fishes eaten were native species. Wild birds contributed to dietary variety, as they did in Europe. The types of animals and fishes identified from the archaeological contexts agree well with the ones listed by Van der Donck. It is not possible at this time to directly compare archaeological faunal material from Amsterdam to that from Manhattan because there is very little faunal data available for the seventeenth century in the Netherlands. However, based upon present knowledge, the general pattern for Period 1 is at least very similar to the Netherlands: emphasis on domestic animals and fowl; extensive utilization of locally available fishes; and wild animals and birds for dietary variety. During Period 2, the overall pattern remained the same but there was a greater utilization of domestic birds, in comparison with wild fowl, and local fishes became even more important. Within the class of domestic mammals, cows and caprines became relatively more important than they had been during Period 1, when pigs were by far the most important

domestic mammal.

SUMMARY

This chapter was intended to examine the available evidence from archaeological sites excavated in Lower Manhattan as part of the effort to reconstruct the foodways of New Amsterdam/New York. Ceramic artifacts and faunal material from nine archaeological deposits were examined and grouped by time period. Differences between the circa 1650-1710 and 1700-1740 periods were noted. Dutch ceramic food preparation forms -- grapen and skillets -- persisted in New York City at least until the first decades of the eighteenth century, and plates made of refined earthenwares were common. European domestic animals and birds were well-established dietary staples by mid-century, but by the first part of the eighteenth century, cows and caprines had increased in numbers compared to pigs. Local fish and wild birds were important foods although use of the latter declined in the eighteenth century.

The next chapter applies these analytical results and the information from Chapter 5 to the research questions stated in Chapter 1.

CHAPTER 7 -- NEW AMSTERDAM/NEW YORK CITY FOODWAYS

The zooarchaeological studies cited in Chapter 1 identified adaptation to local environments, availability of local plants and animals, and extent of supplies from the mother country as universal elements that acted to change European to European-American foodways. The seventeenth and early eighteenth century inhabitants of New Amsterdam/New York City were among the European groups whose foodways were affected by these factors. In addition, unlike the other Atlantic coastal areas, New York was ethnically diverse, and it was subject to a change in political domination from one ethnic group to another during the study period.

The previous two chapters have examined documentary and archaeological evidence pertaining to diet and food preparation in New Amsterdam/New York City. This chapter will synthesize this information and compare it to what is known of Dutch foodways and then to the information available about foodways in neighboring British-American colonies. The discussion will be organized to answer the six clusters of questions that were posed in Chapter 1.

1. How did the early settlers adapt to local environmental conditions? Did they attempt to replicate their European foodways and if so how successful were they?

It is unfortunate that archaeological assemblages from the earliest period of settlement in New Amsterdam have, so far, not been found; there are no faunal and floral data to show what foods the earliest settlers actually consumed. However, the documentary sources provide some clues about how the early settlers responded to their unfamiliar surroundings.

Based upon the documentary sources noted in Chapter 5, the inhabitants of New Amsterdam tried to maintain their

Dutch foodways. All of the early chroniclers stated, either explicitly or indirectly, their desire to continue to consume the foods to which they were accustomed. There is no indication in the documents that there was any intent to adapt their foodways to local conditions, although the colonists sampled and even savored native foods on occasion. When they wrote of the unfamiliar New World, its new victuals were described in terms of Old World edibles (as any novelty is described by comparison and contrast to familiar things), and the land was also characterized in terms of its suitability for growing Old World crops.

Their dietary expectations were made feasible by the relative similarities between the climates of the Netherlands and New Netherland; no drastic adaptations were required of the early settlers. Their expectations were also supported through the supply of foodstuffs from the Netherlands and from the Dutch West India Company's warehouses in New Amsterdam.

The lack of artifacts and faunal and floral data from the first period (1626-circa 1640) in New York City prevents an assessment of how closely the early colonists' actual daily diets reflected their stated desire to continue to eat European foods.

In particular, it is not possible to assess the importance of foods acquired from the Indians. However, in Albany, at the site of Fort Orange, early faunal material has been recovered: in deposits dating before 1640 the only identifiable large mammal bones were from deer and pigs; cattle bones did not appear until after 1640, and sheep bones were even later (post-1655), (Huey 1988:555-556). The ratios of deer to pig teeth were approximately 7 to 3 before mid-century, and it was only after 1657 that the ratios became equal (Huey 1988:556). The presence of deer bones does not necessarily indicate a departure from European foodways because deer, albeit different species, were

present in the Netherlands and venison was a prestigious meat (Chapter 4). Consumption of venison in the New World was not the adoption of a new food, instead it was an opportunity to obtain a valued type of food that was in limited supply in Europe. Nevertheless, it does represent a departure from average Dutch foodways.

It is not possible to draw direct parallels between Fort Orange and New Amsterdam, particularly because direct contacts with the local Indians were more frequent in the former, but it is suggestive that deer were so common and domestic animals so scarce in the earliest years. Cattle, as noted in Chapter 5, were not abundant before mid-century in the New Netherlands; those that were in the colony were not commonly slaughtered but instead were raised to produce offspring. In addition, animals were valued more as producers of milk rather than as sources of meat. It is probable that early New Amsterdammers also consumed more venison than pork or beef, but the excavation and identification of early faunal deposits are necessary before this question can be resolved.

Archaeological and documentary data from the last half of the century show that European domestic animals and European grains were well-established in New Netherland by the 1650s (Chapter 5). The colonists had successfully replicated their European foodways in New Amsterdam, but with the available evidence we cannot determine how early this success was achieved. The New Netherlanders began in the 1620s with the goal of maintaining their foodways; by the 1650s they had achieved their goal. Nevertheless, their foodways had been modified by the new environment and by contact with the native peoples of the area, as will now be discussed in Question 2.

2. What local plants and animals were added to the diet and how did the New Amsterdammers learn to obtain and prepare these resources? Were native foods incorporated into the diet as more or less direct replacements for European foods or were they prepared and consumed in aboriginal fashion?

Native American Domesticated Plants

Grains

The incorporation of indigenous foods, particularly maize, was the most significant dietary change. The Dutch obtained maize from the local Indians from the time of the earliest settlement on Manhattan Island (De Voe 1970(1862):xii). By 1640, maize was both bought from the Indians and taken from them as "taxes" or tribute (De Vries 1909:209). The colonists also learned how to grow maize from the Indians. By the 1650s, the period chronicled by Van der Donck, maize cultivation by Europeans was common (Van der Donck 1968:31).

Maize as a food source has considerable advantages that outweigh its disadvantages. Its principal disadvantages are nutritional: it is especially deficient in lysine and tryptophan, essential amino acids, and most of its niacin (vitamin B-12) is bound up in an indigestible (for humans) molecule (McGee 1984:242). The available niacin in maize and its relative protein content can be increased by processing the grain with an alkaline compound like lye or ash (McGee 1984:244). Native Americans often added ashes or lye to the water in which maize kernels were boiled before being used as hominy or pounded into meal. The nutritional deficiencies of corn can also be easily offset by consuming maize and beans together. Beans are rich in lysine, tryptophan and niacin and thus compensate for the deficiencies of maize (McGee 1984:244). Other vitamin-rich fruits and vegetables can also offset the lack of niacin, but people whose diet consists chiefly of maize with few

other vegetables, fruits, or grains are subject to the disease pellagra⁹. There is no mention of wide-spread symptoms of this disease in New Netherland among the Native Americans or colonists, so it can be assumed that most people were not overly dependent on maize as a single food source.

The advantages of maize are its relatively easy cultivation and its relatively high yield compared to other grains. Maize yields are higher than any other grain, except for rice (Cronon 1983:150). Historians have estimated that eighteenth-century average grain yields were eight to twelve bushels per acre for wheat and fifteen bushels per acre for maize (Henretta 1978:12-13). Higher figures, between twenty-five and thirty bushels of maize per acre, have been cited for Indian fields (Cronon 1983:44). Seventeenth century differences in wheat versus maize in the Chesapeake were dramatic: wheat yielded a return of ten to one (i.e., for every single grain planted ten were harvested) while maize returned two hundred to one (Durand 1687 cited in Miller 1984:235).

Maize could be grown without plowing and consequently was a good crop for settlers who lacked plows or draft animals: land was cleared of brush and trees were felled without removing stumps; then maize was sown and weeded using hoes and adzes (Van der Donck 1968:31; Cronon 1983:150; Miller 1984:235-236).

Flint corn was the variety of maize that had been grown in the Northeast since the Late Woodland period, which commenced in the Northeast about 1000 A.D. (Ceci 1977:93). Root (1980:239) contended that sweet corn (a variety eaten

⁹. Pellagra is a B vitamin deficiency disease whose symptoms include skin lesions, diarrhea, fatigue, and confusion. It was fairly widespread in the Southern United States at the start of the present century and is still a health problem in parts of South Africa, Egypt, and India (McGee 1984:243).

off the cob before botanical maturity, the most common modern type), was grown by the Iroquois in central New York during the seventeenth century, but was not grown east of the Appalachians until the end of the eighteenth century. He did not cite references for this assertion, however.

The Indians ate maize off the cob or, more commonly, boiled the kernels (often with lye), dried, and crushed them either in wooden mortars with stone pestles or between two stones (De Rasieres in Jameson 1909:107; Megapolensis in Jameson 1909:175; Van der Donck 1968:75; Carr in Ford 1986:173-174). The meal thus produced was sifted through loosely woven baskets. It could then be made into cakes to be baked in the fire or put into water in pots to be boiled over the fire. According to Van der Donck, boiled corn meal mush (called sapaen by the local Indians) was the most common food: "we seldom visit an Indian lodge at any time of the day, without seeing their sapaen preparing, or seeing them eating the same" (Van der Donck 1968:75-76). Dried meats, fish, or vegetables were often added to the boiled mush (Van der Donck 1968:76; Carr in Ford 1986:179). Maize cakes made of meal mixed with water and cooked in the ashes of fires could be flavored with fat or fresh or dried fruit (Carr in Ford 1986:181). Maize and other vegetables, especially beans, were also added to boiled meat or fish.

Gruels and porridges were important components of Dutch diets, especially among the middle and lower economic groups (Chapters 3 and 4). Pehr Kalm observed that sappan (an alternative spelling) was a universal dish among Dutch-Americans in Albany and New York City during his mid-eighteenth century visit (Kalm 1987:602-3, 629). Van der Donck's sapaen and Kalm's sappan were separated by one hundred years, but it is clear that the New Netherlanders and later New Yorkers adopted maize as a direct replacement for European grains in porridges. Maize became an important component in Dutch-American foodways because it was

relatively easy to cultivate, it gave a high yield, and it could be prepared in almost exactly the same manner as familiar foods.

Porridges were important in Dutch foodways but the single most important use of grain in the Netherlands was in the baking of bread. Bread was sometimes made from rye, occasionally from barley, but most often from wheat. Maize flour could not be substituted for wheat flour in bread production because maize lacks gluten, an essential component of raised bread.

Gluten is a protein with specific qualities: the protein content of wheat is not simply a matter of nutritional value. Wheat has long been the premier grain primarily because its storage protein has unique chemical properties. When ground up and mixed with water, this protein forms a complex, semisolid structure, called "gluten," which is both plastic and elastic; that is, it can stretch under pressure and yet tends to resist that pressure. It will expand to accommodate gases produced by yeast, and yet it contains the gases, rather than stretching to the point of bursting. Of the other grains, only rye has storage proteins with anything like these properties, and rye gluten is vastly inferior to wheat gluten. Without wheat, then, we would not have raised breads (McGee 1984:234).

Breads, (defined as ground grain mixed with liquid and leavening agents and baked rather than boiled or fried), made of maize were "heavy" by European standards (for example see De Rasieres quoted in Chapter 5). Grains lacking gluten make dense breads without the small air pockets found in wheaten bread. Gluten is also necessary for pie crusts, cookies, and sweet breads or cakes, all common foods in seventeenth century Dutch households.

The colonists, as noted in Chapter 5, did plant wheat, rye and barley, and these European grains did reasonably well in the new environment (Van der Donck 1968:30; De Raiseres in Jameson 1909:104; De Vries in Jameson 1909:209; Danckaerts 1913:213 and passim). European grains were often

planted on fields that had been previously cleared by the Indians for maize. By the early 1640s, and possibly earlier, the West India Company routinely used New Netherland wheat to provision its soldiers and sailors in the West Indies (Joques in Jameson 1909:260). Exports of flour to the West Indies are regularly noted in colonial documents (for example, by Governor Dongan in 1687 and Lord Cornbury in 1705 [O'Callaghan 1849: 160 and 712]). Albion stated that "not long after that capture [1664], the flour barrel began to replace the beaver skin as the port's most valuable offering to the world of commerce; and would remain so for more than a century" (Albion 1984[1939]:2). Thus, even though wheat was not as easily grown as maize, it was an important crop in New Netherland/New York for both export and home consumption.

Wheat required more labor than maize and yielded a lower return per acre, yet the colonists were willing to invest labor and resources in its cultivation. This was due in part to pressure from the West India Company, whose Directors were mindful of the benefits that could accrue from wheat as a commodity, and was also due to the colonists' desire to maintain their accustomed foodways. In the earliest years of the colony, there had been shortages of bread -- not of food in general but of breadstuffs -- and people had suffered from this lack (Michaelius in Jameson 1909:133). The municipal laws that were promulgated throughout the century to regulate its quality and price (Chapter 5), also attest to the importance of bread in the colonist's foodways.

Vegetables

The Indians' most important cultivated plants were maize, beans, and squash. Maize became a colonial staple as a substitute for European grains; beans and squash became part of foodways as substitutes for European vegetables.

All cultivated squashes are members of the genus Cucurbita. Botanists disagree about the number and identity of species within this genus, but for practical culinary purposes they can be divided into summer and winter varieties (Root 1980:476; McGee 1984:200). Summer squashes are eaten while soft and botanically unripe; winter varieties are allowed to mature on the vine and develop thick, starchy pulp. Summer squashes must be cooked shortly after picking, but winter varieties have thick skins that facilitate long-term storage of the vegetable. Winter squashes can also be cut into pieces and dried, as was the practice of the Indians, for even longer storage.

Squashes were domesticated in the New World and were unknown in Europe in pre-Columbian times. Samples of cultivated squash were brought back to Spain by the early explorers and recipes for squashes began to appear in French cookbooks by the middle of the sixteenth century (Root 1980:475; Wheaton 1983:31). The Verstandige Kock, however, does not have any recipes that include squash. One variety of winter squash, the pumpkin, was known in the Netherlands by the seventeenth century, although it was "despised [in the Netherlands] as a mean and unsubstantial article of food" (Van der Donck 1964:68). It was nevertheless eaten by the New Netherlanders, some of whom held it "in high estimation"; it was also valued for its ease of cultivation and preparation (Van der Donck 1964:68). Pumpkins had come to the Netherlands through Spain, but other squashes were apparently not known there. Van der Donck observed that squashes were called by their Indian name "as the plant was not known to us before our intercourse with them" (Van der Donck 1968:68).

The Indians boiled soft summer squashes with corn, meat and/or beans (Kimball and Anderson 1965:172, Root 1980 475-476). Squash blossoms were sometimes boiled along with the vegetables. Dried pieces of winter squashes were also

boiled, and whole vegetables were roasted in ashes and flavored with fat or maple syrup. The Europeans in turn boiled summer squashes and roasted or boiled winter varieties. Pumpkins in particular, according to Van der Donck, were stewed or baked in a fashion similar to apples. By the time of Kalm's travels, pumpkins were widely grown throughout all the French and English Northeastern colonies (Kalm 1987:516-517). Kalm was served pumpkins boiled, roasted, as a mush made with milk, and in pancakes made of cornmeal and mashed pumpkin (Kalm 1987:607). During the century that separated Van der Donck and Kalm, Dutch-Americans had thus combined two important New World foods (maize and squash), into an Old World staple (pancakes).

Squashes were incorporated into Dutch-American foodways as direct replacements for European fruits and vegetables. Winter squashes, particularly pumpkins, were treated in the same manner as apples. Summer varieties were substituted for other soft vegetables. Some of the Dutch accepted squashes easily and were pleased with the vegetables' flavor but others did "not esteem it very highly" (Van der Donck 1964:68-69). The taste of squashes of all varieties was different from any vegetables or fruits familiar to the Dutch. Nevertheless, the plant "grows rapidly, is easily cooked, and digests well in the stomach, and its flavor and nutritive properties are respectable" (Van der Donck 1968:69). Squashes thus became part of Dutch-American foodways because they were easily grown, easily prepared, and easily digested.

The study of the acceptance of New World beans by Europeans is complicated by linguistic factors: the English word "bean", the Dutch "boon", the French haricot, and the German bohnen are used to refer to both Phaseolus vulgaris and Vicia fava (Root 1980:26; Wheaton 1983:85; Mc Gee 1984:252-254). Phaseolus vulgaris, native to the Americas, is the common bean whose many varieties include the green

and butter bean (varieties eaten with their pods when botanically immature), kidney bean, pinto bean, black bean, and navy bean (all eaten when mature), among others. Vicia fava is the broad or fava bean, which was the bean grown in Europe before the discovery of the Americas. Because of this linguistic overlap, it is often difficult to determine what type of bean is referred to in old documents and recipes. Root's (1980:26) identification of the Windsor bean as an English variety of the fava bean helps to clarify Van der Donck's statement about beans:

the large Windsor bean ... and also the horse bean, will not fill out their pods... the Turkish beans which our people have introduced there [emphasis mine] grow wonderfully; they fill out remarkably well and are much cultivated. Before the arrival of the Netherlanders, the Indians raised beans of various kinds and colours, but generally too coarse to be eaten green, or to be pickled (Van der Donck 1968:71).

Van der Donck thus made a distinction between Windsor beans, horse beans, Turkish beans, and Indian beans. Windsor beans were of European origin, and, along with horse beans, were a variety of Vicia fava (Root 1980:184,578). Indian beans were American Phaseolus vulgaris. The "Turkish beans" present problems but they were most probably a variety of Phaseolus vulgaris. McGee (1984:201) states that "French, kidney, or common green beans" traveled to the Old World from Mexico or the Caribbean via Spain and Portugal, then spread to northern Europe. From there, according to McGee, they were introduced to the northeastern American coast by Europeans. Van der Donck, as noted in Chapter 5, called maize "Turkey wheat" and his use of the term "Turkey bean" implies a common origin for maize and this type of bean. Van der Donck's attribution of the introduction of "Turkey beans" to the Dutch supports McGee's interpretation, but other writers do not seem to agree. De Rasieres, writing a generation earlier than Van der Donck, stated that the

Indians grew "Turkish beans" along with their maize (De Rasieres 1909:107). De Vries (Van der Donck's contemporary), identified Indian-grown beans as "French" beans of various sorts (De Vries 1909:219). In short, the available information is ambiguous. The Dutch were growing American P. vulgaris but it is quite possible that the varieties grown in the New Netherlands had originated in Mexico and were different than the northeastern varieties grown by the local Indians. In order to clarify this point, it would be necessary to compare archaeologically-recovered varieties of beans from seventeenth century European and Native American sites. So far, such preserved remains have not been recovered. Lacking such floral evidence, the only fact that can be stated with certainty is that the Dutch were growing American P. vulgaris along with European V. fava and, according to Van der Donck, the American species grew better than the European varieties.

At any rate, dried P. vulgaris and V. fava beans are similar enough that they can be substituted for each other in recipes; green P. vulgaris could be prepared in a manner similar to other green vegetables. Wheaton has suggested that the green bean's "convenient resemblance to asparagus" gave French cooks ideas for its preparation (Wheaton 1983:86). In the Verstandige Kock there were two recipes for beans. The first included "young, green Turkish or climbing beans"¹⁰ in a list of vegetables (chicory roots, beets, hearts of lettuce, etc.) that were to be boiled and dressed with oil, vinegar, salt and pepper. The second recipe was for stewing broad or Turkish beans¹¹ with parsley, salt, butter, broth, and savory. Both recipes are for fresh, not dried, beans. Van der Donck's observation

¹⁰. "jonge groene Turckse of Klim-bonen"

¹¹. "Tuyn-boonen, Klim-of Turckse Boonen"

(quoted above), that the Indian beans were not suitable for eating green or for pickling also seems to point to the consumption of fresh rather than dried beans.

In New England, dried beans became an important food (Jones 1981:133-135), but they did not achieve equal popularity in New Netherland. Domine Michaelius, as noted in Chapter 3, objected to the "hard fare" of dried legumes and ship's bread which was allotted to him on his arrival in New Amsterdam. Dried beans figured in Dutch foodways as shipboard and institutional foods, and the relative lack of importance of beans in New Netherland was possibly due to dried beans' association with somewhat sub-standard menus in the Netherlands.

Summary

The three most important cultivated foods of the Indians (maize, beans, and squash), were adopted by the Dutch. They were assimilated as more or less direct replacements for foods that were familiar to the colonists: maize porridges replaced gruels made of wheat or barley; beans and squashes replaced European vegetables. Of the three, maize was by far the most important. These New World foods became part of Dutch-American foodways because they were similar to familiar foods and because they grew well.

Native American Non-Domesticated Plants

The Native Americans ate many kinds of wild plants; some were incorporated into Dutch-American foodways but some equally common were not. Foods that were adopted, according to the early chroniclers, were wild berries, wild grapes, and nuts (Danckaerts 1913:59; Van der Donck 1964:23; Cronon 1983:127). The available archaeological evidence supports the documents: at the Broad Street site, strawberry, raspberry, grape, and blueberry seeds were found along with remains of filberts and acorns (Grossman 1985:appendix N); at the Stadt Huys Block, raspberry, strawberry, grape seeds,

and hickory nuts were found (Moore in Rothschild, Wall and Boesch 1987), but it was not specified if the seeds were from wild or domesticated varieties.

In addition to these berries, grapes, and nuts, Van der Donck included wild leeks and onions, (referred to as "like ours"), among the bounties of the New Netherlands along with several other kinds of roots and fruits, known to the Indians, who use the same which are disregarded by the Netherlanders, because they have introduced every kind of garden vegetables, which thrive and yield well (1964:23).

The "several other kinds of roots and fruits" eaten by the Indians included a great variety of tubers, stalks, and leaves. Common cattail, sweet flag, common arrowhead, Jack-in-the-pulpit, wild calla, Virginia arrowarum, and other roots were boiled or pounded into flour for baking. Skunk cabbage, merrybells, marsh marigold and many other plants were eaten as greens, especially when young (Carr 1895 and Yanovsky 1936 in Ford 1986, Kavasch 1979:45ff.). These foods were consumed by the Indians as part of a seasonal cycle of food procurement that required extensive knowledge of local resources as well as a willingness to substitute one plant for another depending upon yearly availability.

Kalm, since he had been sent to North America to explore the flora and fauna, naturally gathered what information he could about the indigenous foods of the Indians. He was fed maize, squash, beans, berries, and other foods by the inland Iroquois during his journeys into their territories, and thus had first hand knowledge of their diet. Conversely, his information about the foods eaten by the coastal Algonquins came from discussions in New Jersey with old Swedish settlers who had been familiar with the Indians as young men. (Since Kalm spoke with these men in 1749, they were describing conditions during the late seventeenth century. His chief informant was ninety-one and had been born in the New World.) According to this

informant, the principal wild plants used by the coastal Indians were the roots of hogniss (Glvcine apois), common arrowhead (Sagittaria latifolia), and Virginia arrowarum (Peltandra virginica), and golden club seeds (Orontium aquaticum) and blueberries (Vaccinium sp.) (Kalm 1987:259-262). Root plants were the staples of the Indians' diet during the summer (Kalm 1987:269). Hogniss roots were boiled and were still eaten in the mid-eighteenth century by "some of the English ... instead of potatoes" (Kalm 1987:259). The early Swedes had eaten it when bread was scarce but no longer used it. Arrowhead roots, gathered in the late spring, were boiled or roasted by the Indians in hot ashes. While they were available, the Indians "desired no other food" according to the old settler, who himself had relished this food as a boy (Kalm 1987:260). Virginia arrowarum roots were roasted in large pits dug for the purpose. Golden club seeds were dried and than boiled. Blueberries were eaten fresh, or dried for later use.

The old settler consulted by Kalm no longer ate these wild foods. Kalm did not inquire as to the reason for this but he did note that arrowhead and arrowarum suffered from the depredations of the Europeans' free-roaming hogs. Both grew in marshy areas and were easily rooted out by hogs who, like humans, were very fond of them. Kalm, who was very much aware of the changes in local plant communities caused by the Europeans' activities, stated "It is therefore very plain, that these roots must have been extirpated in places which are frequented by hogs" (Kalm 1987:260).

Destruction of plants by pigs and disruption of habitats by European farming and land clearing were reasons for the disappearance of some wild foods from the settlers' diets (Cronon 1983). The disappearance of the Indians themselves also must have resulted in a lack of the foods they had gathered and provided to the colonists. These plants were available to the Europeans largely through the

efforts of the Indians and gathering them was relatively arduous and time consuming. In general, it appears that the colonists lacked both the knowledge and the incentive needed to make use of these plants. The native non-domesticated plants that were adopted by the Europeans -- i.e., berries, grapes, and nuts -- shared three important characteristics. They were found in fairly dense concentrations, they were easily found and gathered without intensive local knowledge, and they were very similar to already-familiar European foods.

No attempts were apparently made to cultivate any of the wild roots and seeds eaten by the Indians. According to Kalm's information, they were consumed by the Swedes in the seventeenth century but by the middle of the eighteenth century they were no longer common. It is likely that the Dutch pattern of wild plant usage was similar to that of their Swedish neighbors. In the early years wild foods were probably obtained from the Indians, but as the local ecosystems changed and European crops became established, they became less important.

Wild foods differ from cultivated foods not only in their genetic characteristics but also in how they are obtained for human consumption. The generation, growth, and harvesting of cultivated plants is strictly controlled by man: locations of crops are set, general times for maturity and gathering are known, and amounts planted are regulated. Cultivated plants are not necessarily more dependable in their annual yield than wild plants; in addition, monoculture of single species of grains or other dietary staples has resulted in catastrophic food shortages for farming peoples. Nevertheless, dependence on cultivated rather than wild plants minimizes dietary risks in colonial situations if the environments of the colonizing and colonized areas are sufficiently similar. Colonists do not have to invest time and effort in becoming familiar with local wild

resources, and greater population densities can be supported with agriculture, thereby allowing colonists to cluster together for protection. The establishment of a colony creates a situation of stress on resources. In situations of stress, people can innovate or can invest greater effort in familiar resources. The Dutch colonists did innovate to some extent, since they adopted the cultivated foods of the Native Americans, but they did not try to extend the numbers of cultivated species. They did not try to control the growth and propagation of wild plants, at least as far as can be determined from the available evidence. The colonists had other, less risky and time-consuming ways to supplement their European-derived crops: they could obtain foods from the Indians through trade and they could send to the Netherlands for supplies. Trade with the Indians was common in New Amsterdam, as the documents attest. Trade with the Netherlands could not relieve immediate hunger, since the time that elapsed between ordering food and actually obtaining it was lengthy, but it was a long-term safety device that guaranteed the colonists could obtain necessities (see Question 3 below).

The use of wild plants as foods, especially in the early years of the colony, can be inferred from documents, but more archaeologically-excavated floral remains are necessary as evidence; early sites are few and recognizable floral data are often not recovered even when large samples are taken for flotation. Urban sites in particular are deficient in floral remains, except for samples taken from privies. Privy samples are biased because they usually represent only the parts of plants that have been eaten but not digested. In New York City, privy fills are almost invariably dominated by berry seeds whose durability and small size allows them to pass unscathed through digestive tracts (Geismar 1993). Privies and cesspits sometimes also contain plant remains, especially fruit seeds, that were

discarded as refuse during food preparation or consumption. Tubers and green leaves are not generally preserved in archaeological deposits, except under extraordinary circumstances. Even in the cesspits of Amsterdam, the seeds of plants like dill, coriander, and lamb's lettuce are the only parts of these common herbs that have been recovered (Baart et.al.1986:125).

Native Animals

Native animals were also added to the Dutch-American diet. Many of the wild animals found in New Netherland were very similar to those of northwestern European and they were adopted as direct replacements for European game.

Based on their presence in genre paintings, where they occasionally figured in food preparation scenes or still lifes, wild mammals and birds were not unknown in Dutch foodways (Chapter 4). Birds -- various kinds of ducks, geese, swans, partridges, bitterns, other game birds, and some song birds -- were the most commonly portrayed. Next in frequency were hares, followed by small deer. Settings for paintings that included non-domestic animals and birds were sumptuous or at least prosperous, leading to the inference that game was consumed by the wealthy as a luxury. In New Netherland, wild birds, either bought from the Indians or hunted by the colonists themselves, were eaten as fairly common foods rather than as luxuries (Chapters 5 and 6). It is probable that the very few deer bones in the New York City assemblages used in this study (Table 6.23) underrepresent the frequency of venison consumption in the last half of the century, since Danckaerts and others (Miller 1969:33; Wooley 1969:37) mention buying reasonably priced venison from the Indians in the 1680s and 1690s. One potential reason for the discrepancy between the documentary and archaeological records could be that venison was sold without bones; if the Europeans bought meat that had already

been removed from the bones, the bones would not be present in archaeological deposits. It is also possible that sampling error and the generally small size of the faunal samples used in this study contributed to the lack of deer bones. On the other hand, Danckaerts and the others might have mentioned venison only because it was a valued European food, not because it was a common New York City meat. In the 1640s, as noted in Chapter 5, the price of venison varied widely from year to year, based upon availability (*Megapolensis* in Jameson 1909:169), and the prices noted by the later writers might have been unusually low. More, and larger, faunal assemblages are needed before the relative importance of venison in the diet of New Yorkers can be determined.

The European settlers sampled many other kinds of wild animals, including bear, opossum, raccoon, beaver, moose, and others, and liked them well enough according to Van der Donck, but they did not try to make them steady food sources. No bones from any wild animals except deer, squirrels, and, possibly, rabbits, were identified in the deposits used for this study (Table 6.23). Squirrels could have been obtained within the settlement, for they easily adapt to a town environment and are not difficult animals to hunt. The rabbit bones were most probably wild cottontail. Wild rabbits are most often hunted with simple snares or traps.

Wild bird bones were not uncommon in the faunal assemblages (Tables 6.20, 22, and 23), although they were relatively more common in the first period than in the second (Table 6.24). Their decline was likely due to decreased local availability caused by environmental changes (Kalm 1987:152-154; Cronon 1983). In spite of this, wild birds are found in archaeological deposits throughout the eighteenth and well into the nineteenth century (Rothschild 1990:156). By this time they were almost certainly market

purchases, and Rothschild suggests that their presence represents an extension of the city's hinterland to compensate for the loss of species in areas closer to the metropolis (Rothschild 1990:157).

Fish are in a different category than wild mammals and birds because no species were domesticated in either the Netherlands or the New World; all fish eaten were wild species. Fish was a preferred food in the Netherlands and fish percentages were high in most of the assemblages discussed (Table 6.22). In general, utilization of local fish increased over time in New York City (Table 6.24), although the two earliest assemblages had quite high proportions of fish (Table 6.22). As noted in Chapter 6, the most common types of fish bones identified were sheepshead and striped bass, both most easily found in shallow waters close to shore. The problem of the possible underrepresentation of herring bones (Chapter 6) complicates the picture, but, from the faunal evidence, it seems that early New Yorkers substituted locally available fish for both the local and deep-water fish consumed in Europe.

The wild birds, mammals, and fish that early New Yorkers found in the area became direct replacements for European animals in the foodways of the colonists. Based on both their depiction in genre paintings and on archaeological evidence from Amsterdam (Jan Baart, personal communication), wild birds and mammals were a luxurious food found chiefly in prosperous households in the Netherlands. The wild fauna of the New World was more plentiful than that of the Netherlands, consequently the transplanted Europeans should have been able to obtain prestigious types of meat more easily in America, especially in the early years of the colony. The fishes of the local bays and rivers replaced the fresh-caught fishes of the Dutch markets.

Food Preparation and Service

Native Americans cooked food by roasting it in or over the fire or by boiling it in a pot suspended over the fire. Food was also cooked with indirect heat: steaming pits were dug in which a fire was laid, allowed to burn down or burn slowly, and then food was placed in the pit and covered over with soil and corn husks, seaweed, or other vegetable matter (Kimball and Anderson 1965 *passim*; Jones 1981:13-14). Indirect heat was also used when heated stones were placed into containers containing liquid to heat the contents without placing the vessels in direct contact with fire. Boiling a mixture of foods in a pot over the fire was very similar to the European method of stewing. In fact, an early English settler in Virginia specifically noted the similarity when he observed that the Indians "lett all boyle together like a galliemaufrye, which the Spaniards call olla podrida" (Carr 1895:173).

Boiled foods as well as spitted meats roasted over the fire were prepared in the same basic manner by Europeans and Native Americans, but methods for finishing and serving dishes were quite different. As outlined in Chapter 4, Dutch meals were formally presented at set times to household members gathered around a central serving area (table, barrel head, board on legs, etc.). Food was consumed out of a central dish or off individual plates. The Indians had little formality associated with food consumption and "observe no stated times for their meals, as our people do, but they suppose it best to eat when they are hungry" (Van der Donck 1968:76). Food was shared with whomever was present and few artifacts were used.

The artifacts used by the Indians for food preparation were simple: earthenware pots for boiling foods; wooden mortars and pestles to pound corn; baskets to sift meal; and spoons or ladles made of gourds or wood. Bowls and spoons made of wood or dried gourds were used to eat food. Storage

of foods was primarily in bark or mat lined pits, baskets, or leather bags. The earthenwares are the only artifacts from this list that are likely to be preserved in archaeological deposits, but Indian earthenware cooking pots were quickly replaced by copper and iron vessels in areas accessible to European trade goods (Cronon 1983: 93-94, Kalm 1987:172-173). Native American earthenwares were more fragile than European-made coarse earthenwares and were also considerably less decorative. Nevertheless, aboriginal pottery has been found at several seventeenth century European sites in North America where it has been linked to the presence of Native Americans, specifically women, (Reitz and Scarry 1985; Louis Berger and Associates C.R.G. 1989:152). There are other possible reasons for the presence of aboriginal ceramics. For instance, an acquaintance of Kalm possessed an Indian pot bought as a curiosity from a man who had dug it out of the ground, after which he had used it to store grease (Kalm 1987:172). There are scattered references to the use of Indian baskets by the Europeans. Baskets were, of course, also used in Europe and they are included in some genre paintings, notably Vermeer's "Kitchen Maid" and a number of Steen's family scenes, in which baskets were shown holding a variety of breads. Indian-made baskets were probably very widely used by the colonists for food storage and transport, but traces of them are very seldom preserved.

Summary

The Dutch settlers added the cultivated foods of the Indians to their diets as more or less direct substitutes for European grains and vegetables; they were prepared in European ways with European artifacts. Maize, especially, became important in Dutch-American foodways as a partial replacement for wheat and other grains. Native wild plants and animals were eaten by the Europeans, but, based on the

available evidence, most of these foods did not become central to Dutch-American foodways. The most widely-utilized wild foods -- berries, nuts, grapes and various wild birds and fishes -- were those most similar to European foods. The colonists learned about indigenous foods through their trading and social contacts with the Indians; they traded with the Indians for foodstuffs and observed the Indians' methods of planting crops and preparing food. Food preparation techniques and artifacts remained European because the new foods could be prepared in the same fashion as familiar foods and required no new or specialized artifacts for their preparation.

3. New Amsterdam was the center of Dutch trade in the North Atlantic. Since it had relatively frequent and reliable ties with Europe, did the settlement go through the initial period of cultural impoverishment and diffuse resource use that was observed in the Chesapeake? Did the colony have the "starving times" that were frequent in other colonies or were the settlers cushioned from initial famine by their participation in an extensive trade network?

The settlement of New Amsterdam and the colony of New Netherland as a whole had no starving times. The Dutch West India Company was experienced enough in the process of supplying distant outposts to be able to provide for the settlement as a matter of routine (Chapter 2). The trading nature of the colony ensured that sources of supply outside of New Amsterdam itself were open to inhabitants. Trade with Amsterdam and with the Indians and other European colonists in North America brought necessary provisions into the town.

The case of Domine Michaelius in 1628 is informative. He complained of his company-issued rations, but he did not

suffer from actual lack of food and he was able to order the foods he wanted from the Netherlands (Chapter 5). It is true that these foods were not immediately available to him, but he did not starve while he was waiting for them. Trading connections with Amsterdam were steady and reliable enough for the colonists to be able to depend on trans-Atlantic supplies (Rink 1986:172-213). Nevertheless, goods from Amsterdam were not cheap and could sell for as much as 140% above their wholesale price in Europe, although 100% was a more common rate (Rink 1986:210).

Trade within New Netherland between New Amsterdam and the Hudson River settlements became a source of food, especially wheat, after farms were established in the 1630s and 1640s. Kiliaen van Rensselaer claimed that he had saved the settlement on Manhattan from starving in the mid-1630s when the DWICO had confiscated his colony's wheat (Rink 1986:196). His claim might have included an element of exaggeration, since pecuniary matters were central to the animosity between the DWICO and the patroon, but the important fact for the present study is that the necessary wheat was available in the colony by this time. Other supplies of wheat, maize, fruit, dairy products, and meat from Hudson River, Long Island, and New Jersey farms were more voluntary. The early (late 1640s) establishment and continued expansion of markets throughout the seventeenth century attest to the importance of food brought into New Amsterdam/New York City from the surrounding countryside. The intra-colonial provisioning trade was essential, especially after populations began to grow in the late 1640s.

Food was also available from the Indians. The Indians brought meat and other foods into the town, and the Dutch sailed to Indian settlements to obtain maize and beans in quantity. The goods the Indians received in exchange were the same as those used in the fur trade -- wampum, cloth,

guns, and liquor for the most part, along with small amounts of other commodities. The Indians also traded for processed food, especially bread. When several Indians in canoes came alongside their boat, the crew of a vessel on which Danckaerts journeyed downriver from Albany to New York traded "a loaf of stale bread" for a large striped bass and "a little old salt meat" for some smaller fish (Danckaerts 1913:222). Such casual exchanges of European processed foods for native wild foods were almost certainly common.

The question of diffuse resource use in early New Amsterdam cannot be answered with the available archaeological data. As already noted, artifact assemblages have not yet been recovered from the first twenty-five years of settlement in New York City. There are differences in numbers of animal species found in the later assemblages, but the extent of diversity is probably due to sample sizes or to the nature of the deposits, especially in the case of the Lovelace Tavern (Chapter 6). There is evidence from the documents, as noted above, that the colonists did expand their resource base to include foods (especially maize) native to the area, and that they sampled many local plants and animals. Some individuals, of whom Van der Donck was a notable example, seem to have regarded it as an adventure to try as many native foods as they could, and thus might have had a very varied diet at times. Conversely, it is possible that many of the earliest settlers had a diet that was less diverse than in the Netherlands, because they depended on the Dutch West India Company stores for a large part of their supplies (dried legumes, salt cod, ship's bread, and other preserved foods).

Cultural impoverishment in the form of inability to obtain preferred foods, particularly dairy products -- "butter and other necessities" (Michaelius 1909(1628):13) -- was an initial problem. Cattle were scarce and expensive. Their possession was occasionally a source of conflict

between the Company's officials and Van Rensselaer in the 1630s (Rink 1986:130-133) and the Indians and Europeans in the 1650s (O'Callaghan 1849:650). Goats were available as alternative dairy animals, but there probably was dietary impoverishment for many until Dutch cattle increased and English animals from New England became generally available. Increased trade in livestock with New England was not universally welcomed: by 1642, English cattle were so common in New Amsterdam that Dutch farmers petitioned to prevent the sale of all animals from New England, except oxen, because the prices of Dutch cows were not as high as they had been (De Voe 1970(1862):26).

The scarcity of food preparation specialists (bakers, confectioners, tart makers) and of women in general before the 1650s also limited access to preferred foods. In the Netherlands, cooking in most homes was done by women (Chapter 4), and there is no reason to suppose that most of the men who emigrated to the colony were capable of producing the kinds of dishes common in the Netherlands. Many foods -- e.g., ham, cheese, bread -- could be consumed with only a minimal amount of preparation, but there was probably a dearth of more complicated dishes.

4. After 1664, did foodways in New York City continue to exhibit Dutch characteristics, especially in food preparation techniques and food-related ceramics? Were locally-produced ceramics made in Dutch forms throughout the seventeenth century in spite of separation from the homeland and political domination by the English?

This question is complicated by the presence of deposits with dates extending both pre and post 1664 (Table 6.3). However, except for Assemblages 1 and 8, all of the deposits were completely formed after the English takeover.

The presence of Dutch-style artifacts among their contents should indicate the persistence of Dutch-style foodways.

The most common Dutch food-related ceramics were grapen with ear handles, skillets, and colanders. Grapen were found in all Period 1 assemblages, except for 1 and 2, and were in two of the three Period 2 assemblages (Table 6.14). Skillets were less common but were identified in Assemblages 2, 8, and 9 (all Period 1). Colanders were the scarcest and were only in Assemblages 1 and 2. Relatively high proportions of ceramic plates were also characteristic of Dutch assemblages; the percentage of plates from the combined deposits of Period 1 was very similar to that from the Amsterdam Oostenburgermiddenstraat site (Table 6.18).

The plain white faience posset pot was the only food service vessel with an exclusively English form. The deposit where it was found (Assemblage 5, Period 2), was possibly associated with an early 18th century tavern (Grossman 1985: VII-35), an inference strengthened by the presence of this vessel. Posset or sillabub pots seem to have been unique to the British (Neurdenburg and Rackham 1923:139) and were used during communal, public, consumption of liquids (Archer and Morgan 1977:60). Communal, public, consumption of liquids was quite likely an activity that occurred in taverns.

Pans, as noted in Chapter 6, are British, or at least non-Dutch, food preparation vessels. The four possible pans (labeled pan/bowl on Tables 6.14 and 6.18 because they were too incomplete for separation between the two forms) all came from the latest assemblage, the Carre deposit. Even if these vessels were pans, their presence is not unexpected, given the high proportions of English ware types in this deposit (Table 6.13).

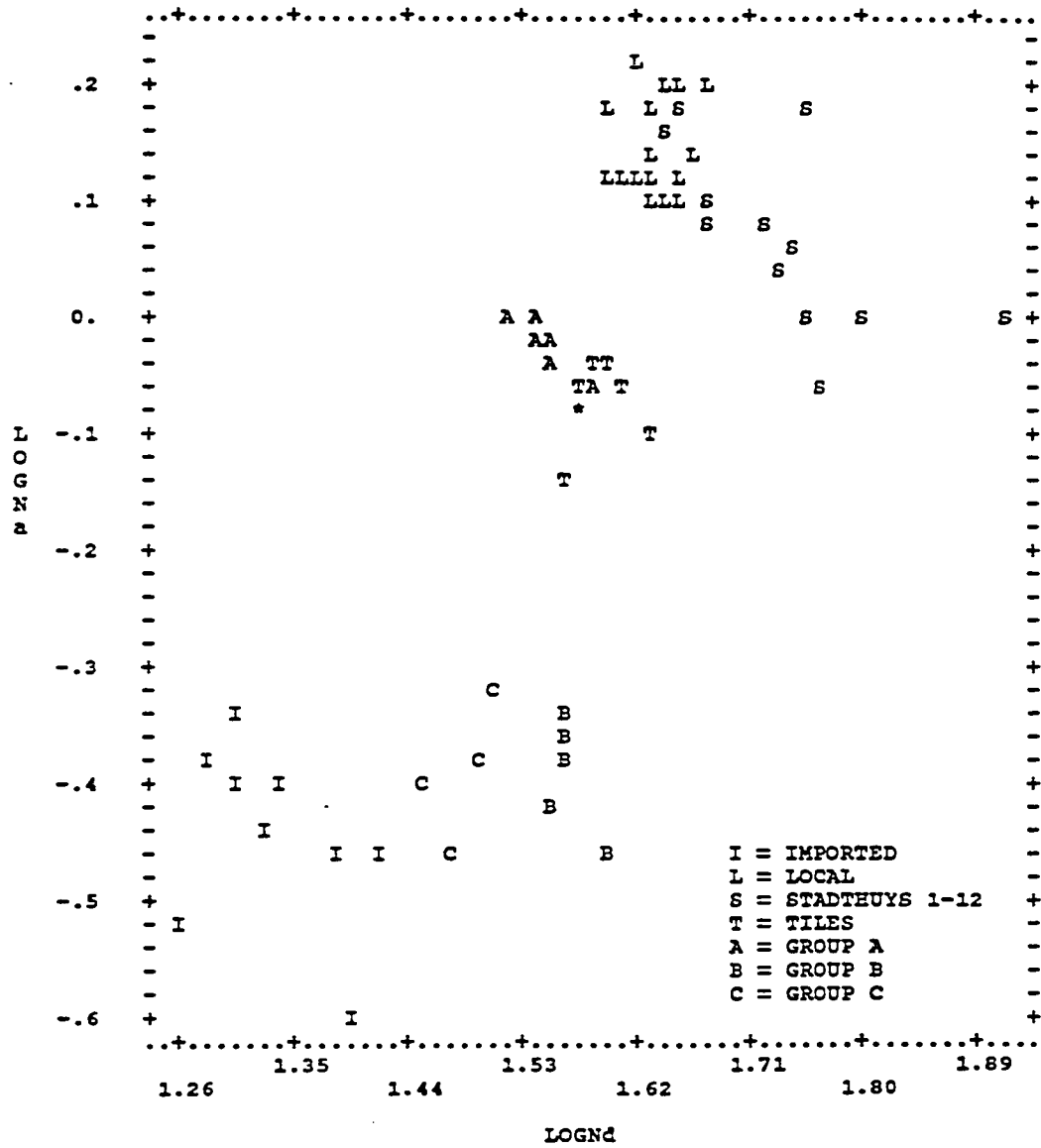
Dutch vessel forms thus continued to exist until the end of the century. The question that now arises is what was the origin of these vessels -- were they imported from

the Netherlands or were they made in New Amsterdam/New York? Potters were working in the town at least by mid-century (Ketchum 1987:35; Janowitz, Morgan and Rothschild 1985:31-32). Most of the seventeenth century potters were Dutch and presumably made pots in the Dutch redware tradition (Ketchum 1987:35-38). Earthenware potters who are known to have been working in the settlement were Dirck Claesen, from Leeuwerden in Friesland, (in New Amsterdam pre-1655 to 1686), and his step-sons John/Jan Ewouts/Euwatse and Ewout Euwatse, who worked in Brooklyn before establishing themselves in Manhattan in 1695 and 1716 respectively. Ewout died in 1718 and John sometime after 1719. Sampson Bensen and his son Dirck came from Haarlem sometime before 1698. Dirck died between 1725 and 1726 and his father did not long survive him. The other documented potter in New York was English (Ketchum 1987:39). This was John DeWilde, who had been brought over by Daniel Coxe of New Jersey to work in a short-lived (circa 1688-1692) faience manufactory that Coxe established in southern New Jersey. After the failure of this pottery, DeWilde apparently came to New York for a short time but was again in New Jersey when he died in 1704. The record of earthenware potters is incomplete after the death of the Bensons until the 1760s when John and Thomas Campbell (born in New York) and two employees appear in documents (Ketchum 1987:42).

New York City in the eighteenth century was best-known for its stonewares rather than its earthenwares. The manufacture of stoneware was begun sometime between 1719 and 1730 by a family of potters from the Rhineland. This family, Crolus/Cortselius, and the related Remmey family, (Huguenots, whose members in New York had worked in the Rhineland), produced stonewares in the German tradition for over a century. However, at present, little is known about their early products and the possibility that they also made earthenwares in their early years cannot be eliminated.

Since form, at the present time, cannot be used to distinguish between Old and New World-made vessels, other criteria must be developed. As noted in Chapter 6, many of the redwares excavated from Lower Manhattan have visible mica on their unglazed surfaces. Jan Baart (personal communication 1986) has stated that Dutch clays do not contain much mica. Conversely, nineteenth century redwares with known Pennsylvania or New Jersey provenances almost always show mica in their pastes. This is a rather subjective judgment, however, and should be reinforced with other, more precise, measurements.

FIGURE 7.1



Analysis of particular paste characteristics is necessary to help determine if potters working in New Amsterdam/New York shaped New World clays into Old World forms. An analysis of the particular chemical compositions of coarse earthenware pastes using a new technique, Inductively Coupled Plasma Emission Spectroscopy (ICP), is now under way (Gilbert, Harbottle and DeNoyelles 1993). About 500 samples of ceramics were taken from sites throughout the metropolitan region. When these samples were analyzed and the results manipulated through cluster analysis, several groups emerged (Gilbert and Janowitz 1990). The first clustered around a kiln waster obtained from the town of Bergen-op-Zoom in the Netherlands (Figure 7.1, group I). Bergen-op-Zoom was a center of redware production whose products were widely distributed throughout the Netherlands. The second cluster centered around a group of early nineteenth century pie plates attributed to New Jersey potters (Figure 7.1, group L). These two clusters were cleanly separated with no overlap. As the next analytical step, five other clusters that had been grouped separately by the computer were compared to the Bergen-op-Zoom and New Jersey clusters. One of these groups (group S) had chemical characteristics very similar to the New Jersey cluster, two groups (B and C) were close to the imported cluster, and the last two (Tiles and group A) were different from either. Thus, preliminary results have identified local versus imported groups of redwares.

Most of the redwares used in the present study were not included in the ICP sample. The ICP testing procedure is a destructive technique that involves taking samples from vessels by drilling into their pastes and collecting the residue as a powder. Drilling was done on samples from the Stadt Huys, Hanover Square and Broad Street in the early 1980s, before the assemblages used in the present study were chosen. The next stage in the ICP analysis will most

probably include samples from more of the vessels discussed here.

Some interesting results were obtained from the vessels that were included in the ICP study. A salmon-bodied vessel with an unidentifiable form from the Kierstede deposit (Assemblage 3, Table 6.6) was within the imported Bergen-op-Zoom cluster. A dish from the same deposit fell within one of the groups that had characteristics very similar to the Bergen-op-Zoom cluster. However, the exterior of this dish shows mica, a complicating factor. Two Lovelace Tavern sherds from a large vessel with an unidentifiable form were at one end of the local cluster.

A group of redwares from the Carre well/privy (Assemblage 7) were drilled and analyzed. As noted in Chapter 6, a complete mug from this deposit was made in a shape very similar to English faience mugs. The glaze on many of these redwares was quite thin and the bodies showed mixing of clays. When the redwares from this deposit were first examined, they were tentatively identified as of local manufacture because they seemed to be copies of vessel forms that were made of English refined earthenware. The ICP analysis has confirmed this identification, for this group is the one that was very similar to the New Jersey pie plate group (group S, Figure 7.1). The New Jersey and Carre vessels are distinguished from each other by the presence of the elements scandium and zirconium, even though the differences are small. Zirconium seems to be associated with Hudson Valley clays, based on samples taken from marked Hudson Valley bricks (Gilbert and Janowitz 1990). It is possible that the Carre vessels were made from no-longer available Manhattan clays that were linked geologically to Hudson Valley clays.

The bottles from the Lovelace Tavern were within the group that was not like either the Bergen-op-Zoom or the New Jersey samples (Group A). This group had characteristics

similar to a group of pan tiles (roof tiles) from Broad Street and Fort Orange. The probable place of origin of this group has not yet been determined, although it is known that pan tiles were made by the Campbells in the late eighteenth century from clays obtained from the common lands near the Collect Pond¹² on Manhattan (Ketchum 1987:43). In addition, tiles were possibly made in Brooklyn as early as 1639 (Ketchum 1987:69).

The ICP analysis appears to be a promising tool. The preliminary results have established the presence of imported redwares in late seventeenth century contexts as well as the local manufacture of English-style forms sometime between 1715 and 1740. What is now necessary is to sample as many as possible of the grapen forms found in the assemblages used here in order to determine if some of them have characteristics that would suggest a local origin. The presence of Dutch-style vessels in New York City during the later seventeenth and early eighteenth centuries has been established (Table 6.14); chemical analysis should be able to determine if these vessels were imported or made locally for customers who bought vessels in familiar Dutch shapes.

Food Preparation Techniques

After 1664, distinctive Dutch ceramic vessel forms, whether imported or locally made, continued to exist. The presence of particular vessel forms does not necessarily indicate the persistence of foodways, but it at least suggests that food continued to be prepared in established, familiar ways.

There is other, indirect, evidence that strengthens this suggestion. Peter Rose, who has translated and edited

¹². The Collect Pond was a freshwater pond located where City Hall and its surroundings now exist. It was drained and filled in the early nineteenth century. The Campbell, Crolius, and Remmey potteries were all located on or near the Collect.

De Verstandige Kock for a modern audience, worked with a 1683 edition of the book in the collections of Historic Hudson Valley (Rose 1989:xix). This particular copy descended in the Van Cortlandt family, but Rose has found other copies in other American libraries; she infers that Dutch settlers either brought the book with them or ordered it from the Netherlands (Rose 1989:3). Since the book was first published four years after the first English conquest, its presence in the New World at least suggests a desire to continue to prepare food in a Dutch manner. Rose has also done research with hand written family collections of recipes and has traced the persistence of certain recipes, in particular those for pastries, waffles, doughnuts, and cookies, through the generations (Rose 1989:29-30).

One of Pehr Kalm's observations could account for the absence of pans in Dutch and seventeenth century Dutch-American ceramic assemblages: "pudding or pie, the Englishman's perpetual dish, one seldom saw among the Dutch, neither here [Saratoga] nor in Albany" (Kalm 1987:603). "Pudding" as used here does not signify the modern dessert whose principal ingredients are milk and eggs, (this dish is more accurately a custard). The simplest seventeenth century puddings were made of different sorts of ground grains or bread moistened with water or milk. Eggs, a variety of fats, meats, sweetenings, fruit, and herbs or spices could be added (Markham 1986:71-73). Puddings could be either boiled (wrapped in thick cloths or animal intestines), steamed in covered pans or molds set in kettles of boiling water, or baked in open pans. "Indian pudding" made with corn meal became a staple in the New England colonies. (A variety, generally called "Hasty Pudding" was very similar to Dutch gruels or sappan because it was simply boiled in a pot over the fire.) No recipes for English-style wrapped-boiled, steamed, or baked mixtures of grains and other ingredients are in De Verstandige Kock. However,

in the section that deals with butchering, there are recipes for making sausages, including three whose names Rose has translated as "gut-puddings" (Rose 1989:94) (although they could also be translated as "sausages"¹³). Two of these "gut-puddings" are mixtures of groats with liquid (blood or water), spices, and suet, the third is pig's liver mixed with bread crumbs and milk, but all are to be placed into pig's intestines and boiled like sausages, without a cloth or pan. The pig's stomach was also to be stuffed with groats and fat and boiled like a sausage. The difference between the recipes in this section of De Verstandige Kock for pig and ox sausages and these others is that sausages were made only with meat, fat, and spices and were usually salted and/or smoked rather than consumed soon after they were made.

A pamphlet of reproduced and reworked Dutch-American recipes from the mid-eighteenth century has only one recipe for a pudding (a fish and bread crumb pudding placed in a pan and steamed) (Hora 1985:25). The artifacts used to make English-style puddings included large metal pots or kettles -- which were used in a variety of cooking techniques and were thus not specific to puddings -- cloths or intestines, which would not be preserved, and pans or molds. The lack of pans in Dutch assemblages is probably due to the lack of wrapped-boiled, steamed, and baked puddings in Dutch foodways.

Summary

The essential differences between Dutch and English

¹³ The words used are "gort-beulingen," "slabberaen-beulingen," and "lever-beulingen." The word "beuling" (singular of "beulingen") is not in the modern Casell's Dutch dictionary, but a glossary of seventeenth-century words equates it with "worst" (Van Sterkenburg 1981:32). "Worst" is translated as sausage (Jockin-la Bastide and Kooten 1978:696).

foodways were not in the foods eaten -- both relied on a limited number of domesticated grains and animals -- but in their methods of preparation and the artifacts used to cook and serve foods. This question examined two post-1664 issues: did locally-made ceramics have Dutch forms; and did foodways continue to have Dutch characteristics in vessel forms and food preparation techniques. From the archaeological evidence, it can be seen that Dutch ceramic vessel forms lasted throughout the seventeenth and into the eighteenth century in New York City but their origins could not be definitely determined. The ICP analysis has indicated that some at least of these redwares were imported; more sampling should determine if any were locally-made. The chemical signature of the Lovelace Tavern bottles, which were almost certainly made in New York, could not be linked to known metropolitan-area redwares. The later English-style redwares of the Carre assemblage (circa 1715-1740) were linked to New Jersey and Hudson valley clays. It has been determined that Dutch vessel forms continued but their place of origin has not yet been resolved; further, at least some locally-made redwares were manufactured in English forms by the second or third decade of the eighteenth century. Thus this question is still partially unanswered: more ICP analysis, specifically of the grapen, is needed.

Food preparation, as inferred from ceramic artifacts and the presence of copies of De Verstandige Kock, continued to have Dutch characteristics. The documentary information, in particular Kalm's observations, suggests that recognizably Dutch-American foodways continued in parts of the former New Netherlands well into the eighteenth century. In spite of political changes and increasing isolation from the Netherlands, Dutch-American foodways continued to exist after 1664.

5. During the last quarter of the seventeenth century, was ethnic diversity expressed in foodways? Is there evidence of coexistent Dutch, English and possibly French (Huguenot) foodways in New York City during this period?

Joyce Goodfriend, as noted in Chapter 1, was of the opinion that New York City in the third quarter of the seventeenth century was a place where people of different cultural backgrounds lived in close proximity, but nevertheless maintained a degree of separation (Goodfriend 1975:257-272). Cultural separation between Dutch, English, and Huguenot New Yorkers was perpetuated through the existence of separate ethnic institutions (especially churches), separate languages and social networks, and a policy of conciliation rather than confrontation by the British authorities. She maintained that, as the population of New York City grew through both natural increase and immigration from England, France, and the Netherlands, "a process of ethnic polarization took place in which self-conscious ethnic collectivities were created as old settlers and newcomers found common ground on the basis of ethnic identity" (Goodfriend 1975:271).

Goodfriend did not claim that there was an inflexible relationship between European ancestry and group affiliation in the New World. Some families and individuals of Dutch descent chose to align themselves with the English (Anglicization) and vice-versa (Batavianization). She also held that accommodation to the politically-dominant English culture was more rapid among the mercantile elite, who, if they wanted to continue to share in political power, of necessity had to interact more frequently and successfully with the British (Goodfriend 1975:264).

If "self-conscious ethnic collectivities" did exist, they should have been perceptible to the inhabitants themselves and should have included differences in material

culture as well as in language and church membership. The identification of ethnic groups through material culture has been a major concern of archaeologists and cultural anthropologists. The problem is complex and is made more difficult for archaeologists by the lack of preservation of some classes of artifacts. The current study is further limited by the available archaeological information. All of the Period 1 assemblages are at least partially within the last quarter of the century, but only two (1 and 3) can be assigned to specific families (Table 6.3). Both these families are Dutch-American, eliminating the possibility of inter-ethnic comparisons.

The ceramic assemblages, as noted above, indicated that Dutch-style ceramics persisted into the early eighteenth century, but they did not provide evidence for ethnic diversity. It can not be demonstrated that English families used different cooking utensils and tablewares than Dutch families during the latter part of the century because none of the assemblages in Period 1 can be assigned to English families. An interesting possibility arises, however, when information about the neighborhood in general is considered. Rothschild has compiled information about residential patterns in 1686 and 1703 for Lower Manhattan (Rothschild 1990:95-99). The neighborhood in which all three of the sites (Broad Street, Stadt Huys, and Hanover Square) were located had many Dutch residents in 1686 (Rothschild 1990:Fig 3.3). By 1703, the residents, except for those on the south side of the Broad Street block, were English or Huguenots (Rothschild 1990:Fig.3.4). It is thus possible that the differences observed between the Period 1 and 2 ceramic vessel forms (Table 6.14) were caused by ethnic differences in ceramic use as well as by changes in trading patterns and increased overall anglicization of New York City. In other words, the Period 2 assemblages had fewer Dutch characteristics not only because food-related

artifacts had become more English but also because the families who used the vessels were not Dutch. (Assemblage 4 [Period 2] was from a Dutch-American family but it was relatively small, with 12 MNVs of which only seven had identifiable forms [Table 6.7].) This is very speculative. More comparative material from contemporary "Dutch" blocks and/or families in Period 2 would be necessary to examine this possibility.

The documents that were consulted for this study have some references to perceptible ethnic differences in material culture. Jasper Danckaerts, who visited in 1679/80, usually noted the ethnic backgrounds and/or birthplaces of the people he encountered during his travels but he did not generally comment on their material culture. One pertinent observation was during his time in Maryland when, after spending time among the English, he encountered a Dutch settlement:

They are almost all Dutch who live there, and we were again among the right kind of people, with whom we could at least obtain what was right ... Some food was immediately set before us to eat, and among other things butter, cheese and rye bread which was fresh and so delicious that my companion said it was to him like sweet cake (Danckaerts 1913:130).

For Danckaerts and Sluyter, the Dutch "right things" included butter, cheese, and rye bread. They had not been able to obtain these things among the English in Maryland but welcomed them when again among Dutch Marylanders. Of course this is not direct evidence for similar differences in New York, although Danckaerts' comments seem to infer that he suffered from a shortage of Dutch foods only while among the Maryland English. In New York City, he lodged with Dutch-American families and recorded no privations.

Other sources allude to possible foodways differences. As cited in Chapter 5, both Madame Knight, at the turn of the eighteenth century, and Pehr Kalm, forty-five years

later, observed differences in the forms of Dutch-American and British-American hearths in New York City. (The open hearth was still the most common method of cooking.) Kalm also noted the differences between the diets of some Dutch-Americans and British-Americans at mid-century, but many of his observations concerned upstate families rather than New York City households.

The comparative evidence needed to answer this question does not yet exist. Ideally, the following types of deposits, in addition to those already discussed here, would be necessary to explore the existence of ethnic groups and their foodways-related material culture:

1. artifact assemblages from Period 1 that could be attributed to prosperous English or Huguenot families for comparison with the Period 1 Dutch assemblages;
2. more assemblages from Period 2 from prosperous Dutch families;
3. assemblages from both periods that could be attributed to Dutch and English or Huguenot households of more modest means. The identifiable families in the present sample were all part of the most prosperous segment of New York City society.

Summary

The available documentary evidence suggests that there were noticeable differences between Dutch-American and British-American foodways during the last quarter of the seventeenth century but there is not yet sufficient archaeological data to confirm this proposition. Other types of artifacts, specifically those made of silver, might be appropriate vehicles for addressing the question of ethnicity as expressed through material culture. This is explored in Chapter 8.

6. Were the late seventeenth/early eighteenth century ceramic assemblages from New York City more similar to contemporary ones from the Chesapeake and New England than was the case with early and mid-seventeenth century assemblages?

This question was designed to examine whether or not the ceramic assemblages from New York City differed from those excavated from sites of the same period in nearby British-American areas. The Chesapeake and New England were settled by Europeans in the early part of the seventeenth century, as was New Netherland. The purposes of the colonies were different, however, with much more emphasis placed on creating self-sustaining agricultural economies in the British areas. In addition, the people who settled to the north and south of New Netherland were much less ethnically diverse: the great majority of the inhabitants of New England and the Chesapeake were of English origin.

The Chesapeake

Direct comparisons between ceramic assemblages from New York and Maryland can be done. The site of St. Mary's City has been the focus of much recent work in the Chesapeake

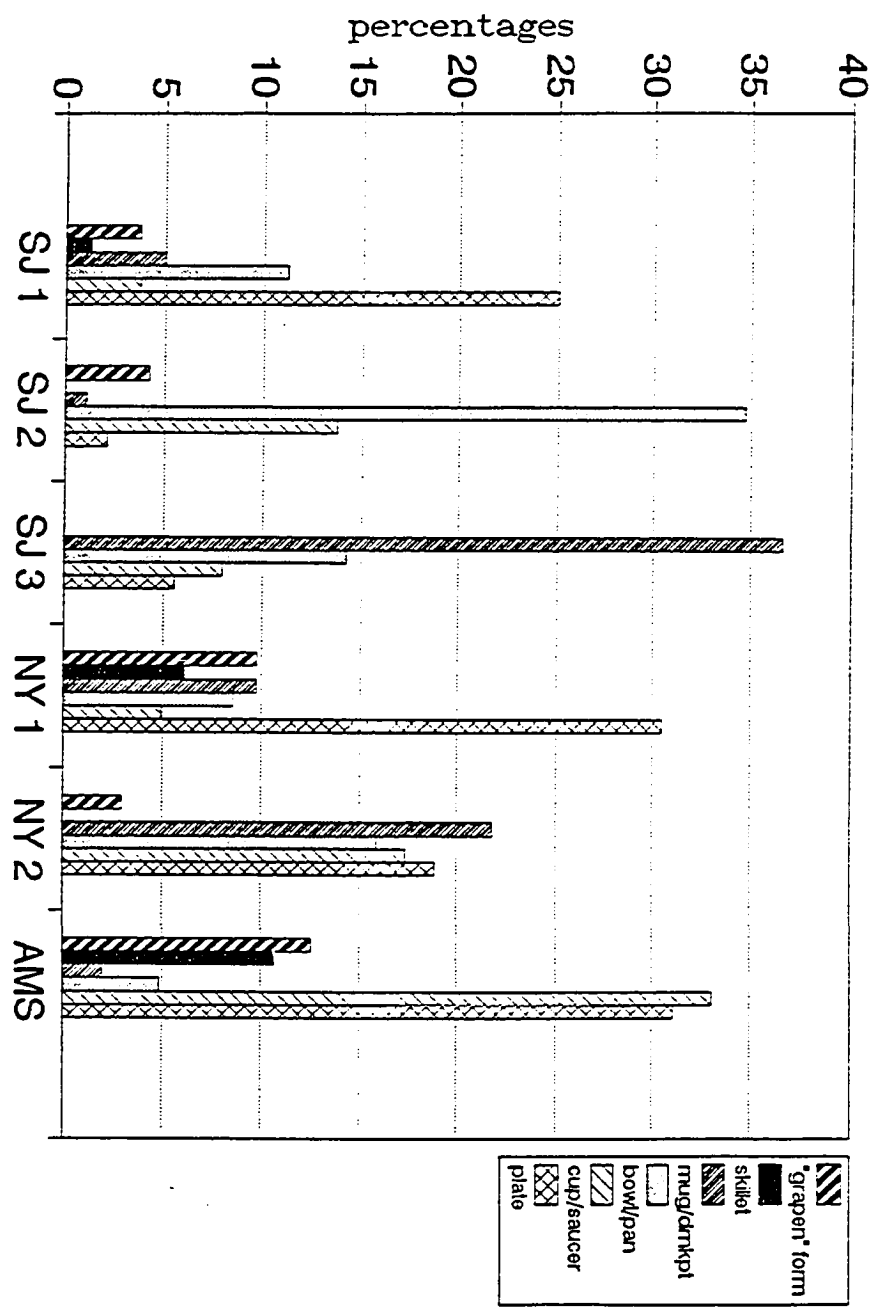
(Miller 1983 and 1988; King 1988; Riordan 1988). St. Mary's City is located on the west side of the Delmarva Peninsula on the St. Mary's River, several miles north of this river's junction with the Potomac (Miller 1983:1). St. Mary's was settled in 1634 and served as the capital of Maryland until 1694 when the government moved to Annapolis. Although no standing structures were left when intensive excavations commenced in 1980, the site had a high degree of preservation because the town was abandoned after the capital moved and the land had only been used for farming in the intervening years. During its sixty years as the capital of a colony with a very decentralized economy, (based on the tobacco trade from dispersed plantations), the main functions of the town were to provide legal services and food and lodging for those who came to the law (Miller 1983:2-4).

Archaeological excavations and analyses continue at St. Mary's City. The only ceramic assemblages that have presently been tabulated as vessels according to the "POTS" typology (Chapter 6) are from the St. John's site adjacent to the town. St. John's was built in 1638 and was the center of a tobacco plantation; from approximately the mid-1660s to the mid 1690s it also served as an inn (King 1988:17). Information about the vessels from the St. John's site was kindly supplied by Silas Hurry (Laboratory Curator) and Henry Miller (Director of Research) at St. Mary's City. The ceramic information from St. John's is compared to that from New York City and Amsterdam on Table 7.1.

TABLE 7.1 PERCENTAGES OF VESSEL FORMS

	STJOHN'S 1 1638-1660	STJOHN'S 2 1660-1685	STJOHN'S 3 1685-1720	NEW AMS/ NYC 1650-1710	NEW YORK CITY 1700-1740	AMSTERDAM 1708-1730
pipkin "grape"	3.75	4.21	0	9.76	2.9	12.62
skillet	1.25	0	0	6.1	0	10.63
bowl	7.5	25.26	3.05	8.54	10.14	4.85
pan/patty	3.75	9.47	12.19	0	5.8	0
dish	8.75	1.05	0	4.88	1.45	1.94
bottle: pitcher/jug/ewer	10	24.22	9.76	17.07	7.25	0
mug/drinking pot	5	1.05	36.58	9.76	21.74	1.94
cup/saucer	3.75	13.69	7.93	4.88	17.4	33.02
porringer	0	1.05	4.27	0	1.45	0
plate	25	2.11	5.49	30.48	18.84	31.07
punch bowl	0	0	4.27	0	0	0
milk pan	22.5	8.42	1.22	0	0	0
jar	3.75	8.42	14.03	6.1	10.14	1.94
chafing dish	0	1.05	0.61	0	0	0
butter pot	0	0	0.61	0	0	0
colander	0	0	0	2.44	0	1.94
posset pot	0	0	0	0	1.45	0
"bakje"	0	0	0	0	1.45	0
TOTAL	100	100	100.01	100.01	100.01	100
total number of vessels	(80)	(95)	(164)	(82)	(69)	(103)

FIGURE 7.2
Intersite Comparisons



The New York City Period 1 assemblage was more similar to the Amsterdam assemblage than to any of the Maryland ones. The most diagnostic vessel forms were, as expected, grapen, skillets, plates, and pans (Table 7.1, Figure 7.2). The earliest assemblage at St. John's was more similar to the New York and Amsterdam ones, but this is not surprising. Dutch merchants carried on an extensive trade with Maryland, especially in the 1640s when stresses caused by the English Civil War created shortages of imported goods in the British colonies. Maryland's trade with the Netherlands was greater than that of any other non-Dutch colony (Wilcoxon 1987:23-25). It could not be determined from the information supplied if the pipkins found at the St. John's site and included in the "pipkin/grape" category were Dutch-form grapen or English-style pipkins, so this composite category was used. Dutch grapen and skillets have been found on at least one mid-century site in Maryland, the Compton site on the east side of the Delmarva Peninsula (Louis Berger Inc. 1989:153). Their presence at the Compton site was tentatively linked to the Dutch traders who were known to have traveled to the Chesapeake to trade for tobacco. Grapen and skillets were not found in the latest St. John's assemblage.

Ceramic plate percentages were high in the earliest St. John's, both New York, and the Amsterdam assemblages. It is likely that the households/taverns that generated the deposits discussed in this study all had high numbers of plates among their food-related artifacts, but they differed in the relative proportions of pewter or treen (wood) to ceramic vessels -- i.e., all the behavioral assemblages had high percentages of plates but the metal and wood vessels did not survive to be recovered in the archaeological assemblages. As already noted, high percentages of earthenware plates, (most made of maiolica or faience but some of redware), are characteristic of Dutch assemblages

(Baart et.al 1986).

Pans, as noted above and in Chapter 6, do not appear to be a vessel form found in Dutch assemblages. Pans/patty pans and milk pans were in all three St. John's assemblages. The division between the Dutch grape/skillet and the English pan probably represents distinctive methods of food preparation. Grapen were used for boiling or stewing. Skillets were used for frying or for rendering a solid (especially butter) into a liquid. The handles on both made them easy to use in open-hearth cooking. Pans could also have been used for boiling, but their shape (an inverted truncated cone, generally without handles) would have made them most suitable for baking, either in a wall oven or within an enclosed container like a Dutch oven or a reflecting oven on an open hearth.

The absence of milk pans from the New York and Oostenburgermiddenstraat deposits, and from other assemblages from Amsterdam¹⁴, might be due to their urban settings, although cows and goats were known to have been kept in New York City. Milk pans served to cool fresh milk and to allow cream to separate for skimming. The closest Dutch forms were deep dishes and bowls with sloping sides (Hurst, Neal and Van Beuningen 1976). These vessels could be used for many food preparation activities, among which were cooling and separating of milk; vessels listed as "melkteil" in several seventeenth-century farmer's inventories were probably in these shapes (Richard Schaeffer, personal communication 1992). The Openluchtmuseum (Open-Air Museum) at Arnhem in the Netherlands uses large copper pans in the dairy of a reconstructed seventeenth-eighteenth century farmhouse. The pans are oval in cross-section but rectangular in over-all

¹⁴ The vessels listed as "melkokker" on Table 15 were tall grapen that were probably used in cooking rather than in the dairy.

shape and bear no resemblance to English-style milk pans. It is thus likely that earthenware "inverted cone-shaped" milk pans are missing in the Amsterdam and New York deposits because the form was not used in these areas. If dairying activities did take place in the households that created these deposits, ceramic dishes and bowls or metal pans were likely to have been used to cool milk and separate cream.

The Period 2 vessels from New York City shared some characteristics with the latest St. John's assemblages. Both had high percentages of mugs/drinking pots and jars (Table 7.1, Figure 7.2). However, the New York assemblage continued to have relatively high proportions of ceramic plates, although less than the Period 1 and Amsterdam deposits. The increased popularity of tea and coffee drinking in the eighteenth century is seen in the Period 2 and Amsterdam high percentages of cups and saucers. The relative lack of these vessels from the latest St. John's deposit is unexpected, especially since the middle St. John's deposit contained more.

New England

Deetz (1973 and 1977) has stated that, before 1650, ceramics in New England households were rare and those that existed were used mainly for dairying. From circa 1650 to 1750, according to Deetz, New England ceramic assemblages were dominated by American-made coarse earthenwares but also included imported faience, slipware, and stoneware (Deetz 1977:51ff.). This period saw a great increase in numbers of ceramic drinking vessels and a lesser but steady increase in numbers of plates. Deetz suggested that ceramic drinking vessels replaced earlier wooden or leather mugs; in contrast, wooden trenchers (often shared by two or more people) continued in use and were not completely replaced by individual plates until the end of the eighteenth century (Deetz 1977:56).

Deetz's observation that ceramics were rare in pre-1650 New England cannot be checked in New Amsterdam because of the lack of early deposits, but it is very unlikely that this pattern would have been found in the Dutch town. Use of ceramics in the Netherlands for food preparation and service was extensive at this time, probably because the craft of pottery making was well-established with both redware and maiolica fabricators working in a number of centers. The distribution of pottery was not limited to local areas but instead flowed along established trade routes; thus it is extremely likely that a variety of ceramics were included in the supplies that reached early New Amsterdam. Huey's excavations at Ft. Orange have convinced him that the Dutch intended to "transport and recreate in every detail" their rich material culture (Huey 1988:617).

For the 1650-1750 period, the same basic ware types described by Deetz for New England were present in New Amsterdam/New York, but the proportions were different. Although coarse earthenwares (redwares) were the most common type in Period 1, they did not dominate the assemblages (Table 6.13 and Figure 6.9). High proportions of maiolica and faience were also present, and, as noted in Question 4, at least some of the redwares found in New York were imported. In Period 2, the proportion of coarse earthenwares declined considerably and maiolica and faience were clearly the most common ware types. At Ft. Orange the percentages of maiolica and faience were even higher: based upon sherd counts from pre-1664 contexts, the assemblage contained 33.8% red and buff coarse earthenwares and 54.01% tin-glazed wares (Huey 1988:773). Thus, neither Dutch-American area's ceramics were dominated by locally made coarse earthenwares.

The proportions of ceramic drinking vessels, especially mugs, did increase during this time in New York, but

relative numbers of plates declined (Table 6.14 and Figure 6.10). The decrease in plates in New York, which is the opposite of the New England pattern, was probably caused by a relative increase in the use of pewter plates. The greater numbers of mugs were due to the availability of English stoneware mugs after 1715. In this characteristic the New York assemblages followed the New England pattern; however, in New York, stoneware mugs probably replaced earthenware and glass vessels rather than those made of wood or leather. Wooden drinking vessels were portrayed in some genre paintings, specifically in some peasant tavern scenes (for example Van Mieris's "The Peasant Inn"), but even in these scenes glass drinking vessels (tall tumblers rather than stemmed wine glasses) were also present. Glass vessels were apparently widely used by the Dutch for consumption of beer and wine during the seventeenth century. The Netherlands had many trading connections with the regions of Germany where glass was produced, and this extensive trade and the over-all prosperity of the country made glass more available than it was in England.

TABLE 7.2 NEW YORK CITY AND BOSTON - COMPARISONS OF WARE TYPES.

Flaw Counts (#)											
New York	1700-1740	ALL RED&BLUE CEMS	ENG.SL&MTL	IBERIAN CEM	MAJOLICA&FAIENCE	ALL GERMAN STNW.	ALL ENGLISH STNW.	OEP	OTHER	TOTAL	
New York	1728	23	4	1	36	6	11	2	1	84	
Boston	1728	129	74	2	96	51	79	20	2	453	
Percentages (%)											
New York	1700-1740	ALL RED&BLUE CEMS	ENG.SL&MTL	IBERIAN CEM	MAJOLICA&FAIENCE	ALL GERMAN STNW.	ALL ENGLISH STNW.	OEP	OTHER	TOTAL	
New York	1728	27.38	4.76	1.19	42.86	7.14	13.1	2.38	1.19	100	
Boston	1728	28.48	16.34	0.44	21.19	11.26	17.44	4.41	0.44	100	

TABLE 7.3 ST.MARY'S, BOSTON, AND NEW YORK CITY

	ST.JOHN'S 3 1685-1720	NEW YORK CITY 1700-1740	BOSTON ca.1728
pipkin/"grape"	0	2.9	0
skillet	0	0	0
bowl	3.05	10.14	6.53
pan/patty	12.19	5.8	3.83
dish	0	1.45	10.59
bottle/pitcher/jug/ewer	9.76	7.25	3.15
mug/drinking pot	36.58	21.74	35.36
cup/saucer/teapot	7.93	17.4	8.11
porringer	4.27	1.45	0.68
plate	5.49	18.84	11.94
punch bowl	4.27	0	0
milk pan	1.22	0	1.58
jar	14.03	10.14	18.24
chafing dish	0.61	0	0
butter pot	0.61	0	0
colander	0	0	0
posset pot	0	1.45	0
"bakje"	0	1.45	0
TOTAL	100.01	100.01	100.01
total number of vessels	(164)	(69)	(444)

Recent excavations in the basement of Faneuil Hall in Boston encountered circa 1728 landfill (Louis Berger Inc., C.R.G. 1993). The ceramics in this landfill exemplify the wares and forms that were in use in Boston in the first quarter of the eighteenth century (Tables 7.2 and 7.3). The Faneuil Hall data do not entirely agree with Deetz's generalizing observations about New England. The locally-made coarse earthenwares are indeed the most numerous ware type but they do not dominate the assemblage -- imported earthenwares (both coarse and refined) are also numerous. The Faneuil Hall assemblage included many vessels associated with a nearby sugar house: the easily identifiable imported sugar molds (not included on Tables 7.2 and 7.3) and the less easily identified locally-made syrup jars skew the numbers of coarse earthenwares. When these are eliminated from the numbers, the relative proportions of imported coarse (English buff-bodied slipwares) and refined (faience) earthenwares greatly increases (Table 7.2). Coarse earthenwares comprise almost exactly the same percentages in both New York and Boston, but English decorated earthenwares are almost four times as common in Boston and faience is almost twice as common in New York. Thus the greatest difference between the two cities is in the types of imported earthenwares.

The vessel forms from Boston can be compared to St. Mary's and New York (Table 7.3). Percentages of non-tea beverage (mugs and drinking pots) and teawares are much more similar in the two British-settled areas. Dishes (large, convex but fairly shallow, round vessels) are more common in Boston than in either of the other cities and it is possible that the foods that were cooked in pans in the Chesapeake were cooked in dishes in New England. Plates in Boston were not as common as in New York but were more common than in the Chesapeake, which probably is a reflection of Boston's earlier adoption of changing British tableware fashions.

In all likelihood, with the exception of molds used in sugar production, the great majority of the coarse red earthenwares recovered from the Faneuil Hall landfill deposits were locally made. The redware industry was well-established in the Bay Colony by the early eighteenth century, particularly in Charlestown near Boston (Pendery 1985:68; Turnbaugh 1983 and 1985; Watkins 1950:24). The redwares of the early New England potters were made in English potting traditions. Turnbaugh noted that vessels made by an early Bay Colony potter (Joseph Bayley, active circa 1722-1735) were "almost deliberately exact in their imitation of popular English varieties," although his son's products, while "still modeled on English prototypes ... diverged from strict emulation of English techniques and forms" (Turnbaugh 1985:225).

In summary, the early similarities between the New York and Maryland ceramics were due not to English influence in the former but instead can be traced to Dutch influence in the latter. The Period 2 assemblage from New York shared characteristics with both the latest St. John's and the Amsterdam ceramics. However, in both periods, the New Amsterdam/New York assemblages clearly differed from those of both New England and the Chesapeake.

The preceding research questions were formulated to examine specific changes in Dutch foodways in the New World and developments that occurred after the English conquest. Before they can be integrated into a reconstruction of Dutch-American foodways, some topics that were not directly discussed in the preceding section must be addressed, specifically the archaeological invisibility of certain foods and artifacts and the effects of the introduction of tea and coffee to Europe and its North American colonies.

Archaeologically Invisible Foods and Artifacts

Grain Products

Common Dutch foods were bread, porridges, pancakes, cheese, butter, milk, fish, vegetables, pork, beef, beer, and wine (Chapter 4). Except for fish and mammal bones, none of these foods are normally recovered in archaeological assemblages and therefore their presence can only be inferred through documents or through the artifacts used to store, process, or cook them.

Bread, the single most important Dutch food, is fairly uncomplicated to trace in New Amsterdam/New York because of the municipal bread laws. From 1657, bakers were required to purchase licenses from the City and prices that could be charged for specific types and weights of breads were regulated by law (Chapter 5). Bakers were present in New Amsterdam well before this time. They were among the employees sent to the colony by the Dutch West India Company, and in 1649 they had been the subject of a tirade by Stuyvesant because of their practice of selling sweet baked goods to the Indians instead of plain bread to colonists (Chapter 5).

Most bread was obtained from bakers. By buying bread instead of baking it at home housewives saved time spent in food preparation and avoided the outlay of money, materials, and space within the dwelling that was required to build a bake oven. Household cooking was done on an open hearth and the construction of a bake oven for the limited production of breads, pies, and other baked goods was not necessary if these goods could be obtained on a regular basis from the baker. Baker's bread saved time, eliminated the need to invest in costly equipment, and saved on fuel. In addition, baker's bread was, based on the relative lack of complaints from the citizens, consistently of at least moderately high quality.

The principal disadvantage of buying bread was that

consumers could be at the mercy of marketing decisions made by the bakers who sought to increase their profits. However, this possibility was lessened by the municipal laws that regulated price and quality. Another disadvantage was that the housewife did not have direct control over quantity, quality, or timing of baking.

Perhaps in order to establish control over their household's supply of baked goods, some wealthy families had their own baking facilities. The evidence for this is found in wills and deeds that specifically mention bakehouses. Sarah Roelof Kierstede, the wife of Dr. Hans Kierstede, in her will of 1693 left "my small house and kitchen ... and my bake house" to her daughter (quoted in Greenhouse 1985:II-4). These structures were in the backyard of the family residence but no trace of them was found during the excavations of the lot. The two assemblages that have been linked to this lot and family (Assemblages 3 and 4) did not have any ceramics that would suggest baking. This is not unexpected since most artifacts used in baking would have been made of metal or wood and since both assemblages were very small. The only ceramics likely to have been used in home baking would have been dishes or bowls to hold rising dough, and even this could easily have been done in wooden bowls or troughs. Mrs. Kierstede's will, however, is direct evidence that some wealthy housewives preferred to do their own baking and had the resources and time (either their own or servants') to devote to bread and whatever other baked goods they had the skill to produce.

Grains were necessary not only for bread but also for pancakes, porridges, and beer. The presence of pancakes and porridges can only be deduced from documents and from the artifacts used to prepare them. Metal skillets and cooking pots do not preserve well in the ground, but the presence of earthenware skillets and grapen, along with documentary references to sappaan and pancakes, has been used to infer

the consumption of these foods. The presence of brewers attests to the production of beer in New Amsterdam/New York, although some of the ingredients used in brewing, and barreled beer itself, were imported.

Brewing is a relatively complicated activity that requires experience and skill. Modern beer is made from water, grain (most often barley), yeast, hops, and, sometimes, other flavoring agents. The process is complex because it is necessary to turn starch into sugar before fermentation can occur. Beer brewing is a multiple-step process:

1. barley kernels are soaked in water and allowed to germinate;
2. the kernels (now known as malt) are dried and roasted until they reach a certain flavor, (as indicated by both their color and taste); at this point the process can be stopped and the malt stored;
3. the malt is mashed in warm water; the resulting sweet, brown liquid is called the "wort;"
4. hops are put into the wort (hops impart the bitter taste to beer) and it is boiled;
5. yeast is added to start the fermentation process, which is allowed to continue until certain levels of sugar and alcohol are attained;
6. the beer is filtered and aged (McGee 1984:470).

The most complicated part of the process is the production of the malt. Timing is delicate: not only must the process of germination be halted after enzymes are produced -- yet before the growing plant has used up too much of its stored sugar -- but the drying and roasting of the malt must also be carefully controlled so that a proper flavor is developed and the necessary enzymes are not inactivated. Gervase Markham's The English Housewife, first published in 1615, contained an entire chapter on the proper methods of producing malt (Markham 1986:180-198). His very explicit instructions were directed to the housewife who was

in charge of turning the products of her husband's land into food. Malt, once made, was a product that not only could be used by the housewife for brewing but could also be an "excellent merchandise and a commodity of ... great trade" (Markham 1986:180). Ideally, the farm would have had a special malt house where the grain could be soaked, germinated, and kilned (dried and roasted) all in one building. Such a building should leave identifiable traces in the archaeological record, but it is unlikely that a malt house would be part of a city houseslot. Even without a separate building devoted only to malting, the necessary soaking, sprouting, and drying would have required a great deal of space as well as skill and experience.

It is thus likely that some brewers in towns and cities bought malt for their beer-making. Instead of beginning the process of brewing with the purchase of grain, they began it with the purchase of malt. Malt was included in the list of products obtained from New England in the anonymous 1661 document quoted by Jameson (1909:423 [Chapter 5]). The settlers at Plymouth imported malt from England in the 1620s (Baker 1984:111), and this is probably the reason behind Van der Donck's mid-century statement that barley, although it had adapted well, was not grown much in New Netherland because it was "not much needed" (Van der Donck 1968:33), although wheat and oats were also reportedly also used for some beers (Van Rensselaer 1909: vol. 1,461). Nevertheless, at least one professional maltster was working in the city later in the century (circa 1689) (Van Rensselaer 1909:vol 2,336). Since the taste of beer is due in a large part to the quality of the malt (which, according to Markham, is dependent upon the soil in which the barley is grown, the timing of the malting, the fuel used in the drying, and the materials used to construct the kiln), the production of domestic malt, rather than the import of home-country malt, might indicate both more self-sufficiency in a colony as

well as a change in taste preferences.

The actual brewing of beer from malt involves grinding the malt, mixing it with water, adding hops, boiling, straining, adding yeast, and fermentation. Hops are native to Eurasia and North America (McGee 1984:475), and the plant's presence in New Netherland was noted by the Dutch (De Vries in Jameson 1909:219). The simple artifacts necessary for brewing would include large copper pots and wooden casks, barrels, and tubs. These probably would not survive well in the archaeological record if they were deposited as refuse, and it is likely that these materials would be reused or destroyed rather than deposited.

Markham described the process of brewing by women in the context of the British farm and home in the seventeenth century. However, in the Netherlands, brewing was a craft practiced by men in cities since at least the sixteenth century (Schama 1987:192-193). Like baking, butchering, and fishing, brewing had become a trade linked to market-oriented Dutch agriculture. (This is not to say that no brewing was done at home, but most brewing for consumption in towns and cities was done in commercial breweries.) The earliest brewery in New Amsterdam was that of the Dutch West India Company (Innes 1902:58, 104). By the 1640s, there were numerous brewers in New Amsterdam, as witnessed by their objections to the tax on beer that Kieft imposed during his Indian wars (Van Rensselaer 1909:vol.1,234). Some of these breweries were on town house lots in the backyards of residences (Van Rensselaer 1909:vol.1,458). Some might have been intended for the brewing of beer for family consumption, but, given the propensity of New Amsterdam merchants (both male and female) to buy and sell whatever was available, commercial brewing for sale to the many tavern keepers and tapsters in the town was probably common. After Stuyvesant arrived in New Amsterdam, in his efforts to prevent evasion of the excise tax he had imposed

on beer, he forbid brewers to retail beer and banned tapsters from brewing so that he could tax the transfer from producer to retailer (Van Rensselaer 1909:vol.1,278).

As noted above, in addition to common barley beer, beer was made from wheat and from oats. Father Jogues noted this practice (Van Rensselaer 1909:vol.,461) and, when bread supplies were short in 1650, Stuyvesant (following the practices of Dutch town governments as noted in Chapter 3), prohibited the export of grain and bread and the use of wheat in brewing (Van Rensselaer 1909:309).

One brewery was undoubtedly a commercial enterprise. The large farm of Jan Jansen Damen, located just outside the Wall, included a brewery managed by his stepson (Innes 1902:298,306-307). When Damen died in 1651 an inventory was taken of his possessions (Van Laer 1974: vol. 3, 270-273. In his barn¹⁵ he had the following: two half sacks of hops "just come from Holland;" one beer half-barrel; one old grain sieve; and one beer pole and sling. The inventory was taken in July, and grain on hand consisted of barley in the rick, along with wheat, rye, oats, and a large quantity of barley malt in the loft. Thus, Damen was apparently making his own malt but importing hops. McGee (1984:475) noted that "Native American varieties [of hops] have a distinctive aroma which European brewers dislike," and it seems that this modern dislike was shared by seventeenth century beer makers. There is no detailed map of Damen's farm, so the presence or absence of a separate building or buildings for malting and brewing cannot be determined. In the "entrance hall" of the house were a variety of vessels, including "6 copper kettles, large and small," but these were listed along with other food preparation vessels and were probably

¹⁵ The wording of the inventory is "In the rear part of the house or the barn," which suggests that Damen had a house and barn under the same roof, as was typical of many regions of the Netherlands.

kitchen equipment, although they might indicate that brewing was done in the food-preparation area of the house.

In spite of local brewing, beer was also imported from the Netherlands. Wines, brandy, beer, and cheese were part of the cargo of a ship that sailed to New York City from the Netherlands, according to a notarial record cited in Grossman; he does not give an exact date for this voyage, but it was after the English conquest (Grossman 1985:II-12). Imported beer would not be as fresh or as effervescent as locally-made beer, although it presumably had a different, perhaps preferred, flavor.

Beer could be brewed within the household, obtained from commercial brewers, or imported. It was one of the most important everyday drinks and, although it is unlikely that its use could be directly inferred from the archaeological record, the documents provide evidence for its manufacture and import.

Dairy Products

Cheese and butter were products that were traditionally associated with the labor of women. Butter is easy to make but cheese production, like malt, requires experience and skill. The artifacts associated with their production are, minimally, vessels to collect milk, vessels to allow milk to cool and separate into cream and milk, churns, pots or wooden casks to store butter, wooden tubs to work curds, molds, and cheese presses. Many of these artifacts, with the exception of earthenware butter pots and milk pans, were made of wood or metal and are not likely to be recovered from archaeological contexts. One way to infer their presence is through the study of probate inventories. Miller has done a comparative study of 1630s to 1660s inventories from the Chesapeake and two areas in England, and has concluded that the households in the Chesapeake had far fewer vessels associated with the dairy (milk pans,

butter pots, and cheese presses). The absence was most notable for cheese presses: of 42 households, only two had this equipment, compared to 22 of 30 in one English area and 24 of 37 in the other (Miller 1984:237-239). He attributed this difference to the shortage of women in the Chesapeake.

There was also a shortage of women in New Netherland, especially before mid-century, and it is likely that relatively little cheese was produced in the colony. Inventories from the New Netherland period are not plentiful and apparently were often not a complete account of household goods (Wilcoxon 1985:121-122). Damen's inventory listed four small milk tubs, but no churn, although he possessed four wooden butter molds. The "milk tubs" might have been used in cheese production but this is not certain. An inventory of a woman who died at Pavonia, (across the Hudson in what is now New Jersey), in 1641 included four milk pails and a churn but no cheese vats or tubs (Van Laer 1974: vol.1, 325). Nevertheless, cheese was mentioned as one of the products brought into the town in the first (1656) enumeration of market commodities (Stokes 1915: vol 2, 345). One hundred years later, Kalm noted that cheese was made in all of the North American areas he visited but that quality varied greatly between the various areas: he preferred the cheeses made by the Swedes in Pennsylvania but acknowledged that the round cheeses of the Hudson Valley were good and well made (Kalm 1987:647).

Cheese, as noted above, was also imported. Cheese has characteristics that make it a particularly suitable commodity for long distance trade. Unlike beer, whose raw ingredients can be stored for a long time but whose quality starts to decline once it reaches the finished product stage, cheese must be created from milk within a day or two of obtaining the raw materials. However, once the curds from milk have been processed and the excess moisture pressed out, cheese can be stored indefinitely. It is quite

transportable and even improves in flavor in transit (if protected from excessive heat and wetness). Kalm, in his discussion of cheese in Quebec, observed that "only common people for the most part were seen eating them [locally-made cheeses]; most of the better class ... bought cheese imported from France" (Kalm 1987:647). It is quite possible that a similar situation existed in New Amsterdam/New York.

The importation of at least some cheese during the early years of the colony is attested to by the Plymouth governor William Bradford. Unlike his Dutch counterparts, his copious correspondence has survived and he noted an official visit paid to him in the late 1620s by representatives of the New Amsterdam government. Among the gifts that were presented to Bradford were "a rundlet [small barrel] of sugar and two Holland cheeses" (Van Rensselaer 1909:vol.1,86).

The archaeological invisibility of cheese plus its presumably wide-spread consumption make it a particularly problematic component of foodways. Some indirect evidence for its presence can be found in traveler's accounts, inventories, and market and import records; more intensive examination of the documents would be necessary to determine the importance of imported cheese.

Herring

Some possible reasons (poor preservation of bones and replacement by fresh fish) for the apparent absence of herring in the archaeological deposits have been mentioned in Chapter 6. Another possibility is the substitution of locally preserved fish. Neither Van der Donck in the 1650s nor Danckaerts at the end of the 1670s mentioned preservation of fish on Manhattan, but De Voe, in his discussion of the Coenties Slip market at the turn of the eighteenth century, stated that the fishermen set up "sheds or other covering, while salting and laying up stores for

the inhabitants" at the market (De Voe 1970:110). Types of fish were not specified and De Voe did not say on what information this statement was based. Earle asserted that the women of New York purchased shad for salting during the spring run:

The ling and herring of the old country gave place in New York to shad ... It is said that in towns, as in New York and Brooklyn, great heaps of shad were left when purchased at each door, and that the necessary cleaning and preparation was done on the street ... those public scavengers, the domestic hogs, who roamed the town streets ... must have been especially useful at shad-time (Earle 1909:134-135).

Earle (in common with almost all writers of her time) gave no sources for her information, nor did she specify the time period, although it is obvious from her text that she was familiar with the work of Kalm and De Voe. However, some of her assertions are speculative and this reference to salting shad is problematic. Rink's study of the trade between New Amsterdam/New York and Amsterdam revealed that herring was imported at least until 1685 (Rink 1986:205), but, as noted above, it is unlikely to be archaeologically recovered.

Cider

Although fruit was abundant, fruit juices were apparently not a standard drink in the Netherlands. However, cider had become common in New York by the time that Danckaerts made his observations; Mrs Knight and Pehr Kalm were also served cider during their visits (Chapter 5). As early as 1661, cider-apples were among the Long Island-supplied foods included in the anonymous description of New Amsterdam (Jameson 1909:423). The popularity of cider in New Netherland/New York might have been due to a combination of factors, including the plentiful supply of apples and the presence of colonists from regions (France, England, and Scotland) where cider was more customary.

The Dutch had brought cultivated apples to New

Netherland, where they flourished. The climate was conducive to fruit culture, and apple orchards, once they were established, were a relatively easy, not overly time or labor intensive, crop.

The artifacts used to drink cider were the same as those used to drink other liquids, especially beer, so the consumption of cider would not be apparent in food service ceramics. To make cider, a cider press would have been necessary. Presses of various sizes were made of wood and metal, materials that are not usually found in recognizable form in archaeological deposits. Cider is thus another invisible food.

Wood and Pewter Artifacts

As noted in Chapter 4, pewter and, to a lesser extent, wooden artifacts were regularly used by the Dutch as tablewares. The majority of the plates and chargers shown in the genre paintings were pewter, and pewter jugs were also very common. Iron and copper large pots were shown in use suspended over fires, and iron griddles and frying pans with long handles were used for frying. Wilcoxon's study of New Netherland inventories and auction lists documented an equally extensive use of pewter and other metal food-related artifacts in the New World (Wilcoxon 1985:125). She found that pewter plates were widely used and that a variety of brass, copper, tin, and iron utensils were also common.

The inventory of the woman who died at Pavonia in 1641 included the following pewter artifacts: ten platters; nine plates; one English quart [jug?]; one tankard; two cups; one mug; a measure; three little cups; and one mustard pot. She also had a wooden mortar and pestle; four tin funnels, a tin goblet, a tin can with screw cover, iron tongs, an iron gridiron, an iron pan, and seven copper "store" kettles. At least some of these kettles were probably intended for trade rather than the needs of the household because one of them

is listed as "partly old," which implies that the others were unused. There were no earthenwares listed in this inventory (Van Laer 1974: vol 1, 325).

Jonas Bronck (for whom the Bronx is named) had an extensive collection of metal artifacts when he died in 1643: thirty-one pewter plates; seven silver spoons; a silver cup; a silver salt cellar; a little silver tray; four tankards [German stoneware?] with silver chains; three iron pots; three brass kettles; and a brass skimmer¹⁶ (Van Laer 1974: vol 2, 123-124). His inventory included neither earthenwares nor wooden artifacts.

Jan Damen's lengthy inventory included many of the same metal artifacts as the other two (although no silver was listed), but he also had two copper griddles, five wooden dinner plates, and nine "earthen dishes" (the term is ambiguous) and an earthen bowl (Van Laer 1974: vol. 3, 270-273). In addition to the wooden plates, he had fifteen pewter plates but no earthenware plates.

The lack of earthenwares in these inventories is probably due in part to the enumerator's omission of this type of artifact, because the auction records regularly list earthenwares among the household goods sold at auction (Pearson and Van Laer 1869: 68, 206, 350). Nevertheless, it is apparent that pewter food service and preparation artifacts were very common. Wooden artifacts were less common but did exist. Large iron and/or copper cooking pots were practically ubiquitous. Iron and copper would have been preferred materials for large pots, kettles, or cauldrons, compared to ceramics, for several reasons: they were less likely to break on impact, they transferred heat more rapidly, and they could more easily be made in large

¹⁶. He also possessed a "chest containing various pieces of porcelain." Bronck's inventory thus included many of the artifacts seen in the sumptuous genre paintings.

sizes with handles for suspension.

Summary - Invisible Foods and Artifacts

Many common foods and artifacts are all but invisible in the archaeological record. The foods themselves leave no residues, and the artifacts used to produce them are either not preserved or were not found in domestic contexts, since food production took place in specialized areas, such as dairies, breweries, and bakeries. Historical archaeologists have the advantage of being able to consult a variety of other sources in their efforts to reconstruct daily lives, so it is possible to infer the presence of these invisible foods through mention of them in documents.

Based on information in various sources, bread, beer, cheese and butter were common Dutch foods that also became common Dutch-American foods, although the wide-spread availability of cheese and butter before the last quarter of the seventeenth century needs further research, as does the importance of imported preserved fish.

Metal and wooden artifacts were also commonly used but are uncommonly recovered. The fact that these vessels are infrequently found in archaeological contexts is a "cautionary tale" for historical archaeologists but does not diminish the importance of studies that are concerned with ceramic or glass artifacts.

Introduction of Tea and Coffee and Increased Consumption of Sugar

As already briefly noted, tea and coffee were introduced into Europe in the seventeenth century but did not become common beverages until the eighteenth century. Until that time, their consumption was not part of everyday Dutch, or other European, fare and thus was not part of the colonists' original foodways. Tea drinking in both Europe and British North America was, at first, an activity

confined to the wealthy, but, by the mid-eighteenth century, tea as both breakfast and afternoon beverage was almost universal (Roth 1988:440-442).

Cups, saucers, and tea or coffee pots, the artifacts associated with drinking tea and/or coffee, are readily apparent in the archaeological record. Although tea and coffee pots were often made of metal (silver and pewter), cups were almost always ceramic. Metal conducts heat much more rapidly than ceramics so is not suitable for the consumption of hot liquids. Metal vessels allow liquids to cool too quickly and can easily lead to burned lips -- by the time a metal vessel has cooled sufficiently for comfortable imbibing, the liquid it contains is tepid, but tea and coffee are consumed when quite hot. Ceramics were, and are, a very suitable material for artifacts used to consume hot beverages. The Dutch imported porcelain cups from the Orient even before tea drinking became popular (Boxer 1965; Van der Pijl-Ketel 1982). When the custom began to be prevalent, the numbers of imported cups and saucers and teapots greatly increased and Dutch faience potters began to manufacture cups and saucers that imitated the forms and decorations of Oriental vessels. Ceramic tea and coffee pots, (except for porcelain vessels imported from China or Japan), lagged in popularity and production and were uncommon until the mid-eighteenth century. The effect on the archaeological record can be seen in Table 7.1: both the Oostenburgermiddenstraat and Period 2 New York assemblages have high percentages of cups and saucers (the relative lack of these vessels in the St. John's 3 assemblage is an anomaly). The European assemblage has almost twice the percentage of the New York one, which probably reflects the greater availability of porcelain vessels and of tea in the Netherlands.

In addition to pots, cups, and saucers, other vessels associated with tea drinking were slop bowls (large cup-

shaped vessels in which dregs would be deposited before refilling the cup), tea caddies (to hold tea leaves), sugar bowls and tongs, milk and cream jugs, and tea kettles. Kettles and tongs were always made of metal, and it appears that the other artifacts, except for slop bowls, were also made primarily of metal throughout most of the eighteenth century (Roth 1988:453-456). Nevertheless, caddies, sugar bowls, and jugs made of porcelain (both Oriental and European), white salt-glazed stoneware, and, after mid-century, English refined earthenwares were made and used during the 1700s, but, except for jugs and slop bowls, they are not common in archaeological assemblages.

Sugar, like so many other products of the East, was first introduced to Europeans during the crusades. The first large shipments of sugar reached northern Europe during the fourteenth century but it remained a scarce and expensive commodity that was used sparingly, as were other exotic foods, as a flavoring and medicine (Hobhouse 1986:45-46; McGee 1984:385-386). By the fifteenth century its price had declined slightly and it had come into somewhat more general use in confections: nuts and seeds coated with sugar syrup; pastes, especially marzipan; and various cakes. The seventeenth century was the time of an enormous surge in European sugar consumption. This surge was based on two factors. First, the plantations begun by the Spanish and Portuguese in the Caribbean and South America were able to supply vast quantities of sugar, and, secondly, the drinking of bitter tea, coffee, and chocolate was made much more palatable to Europeans by the addition of sugar. Thus, demand, and subsequent pan-European sugar addiction, was fostered by tea and coffee drinking (Hobhouse 1986:64).

The presence of sugar in households can be inferred from the presence of tea- and coffee-drinking equipage -- cups and saucers in archaeological deposits and metal sugar

bowls, pincers, and tongs¹⁷ in probate records -- but its use in cooking is not easy to trace archaeologically. However, the presence of sugar refineries is often very visible in the archaeological record because large numbers of earthenware molds and jars were used in the refining and crystallizing process. The earliest sugar refinery in North America outside of the Caribbean was probably that established in Boston sometime shortly after 1713 (Barr, Cressey and Magid n.d.:6). The excavations in the landfill under Faneuil Hall uncovered a large number of imported sugar loaf molds and locally-made syrup jars (Janowitz and Azizi 1992). No such numbers have been excavated from New York City, although a few fragments that were probably from sugar loaf molds have been seen in the various collections excavated in Lower Manhattan (although their particular form and specialized function were not identified at the times of their analyses).

Amsterdam was the center of the European sugar trade and sugar became available and cheap in the Netherlands before the mid-seventeenth century (Hobhouse 1986:46; Schama 1987:165). The recipes in De Verstandige Kock, as noted in Chapter 3, used sugar to preserve fruits in the forms of jams, jellies, candies, and syrups and to sweeten pancakes, cakes, tarts, and other baked goods. Stuyvesant's restrictions on fancy baked goods and sweet cakes (Chapter 5) show that sugared cakes, etc., were available in New Amsterdam by mid-century. It is likely that the colonists were supplied with sugar through the West India Company and private traders who were interested in this profitable trade. The adoption of tea and coffee drinking almost certainly increased sugar consumption, as it did in Europe,

¹⁷. Sugar was manufactured and sold in a cone-shaped solid mass called a loaf. Metal pincers were used to break pieces off the loaf. Smaller tongs were used to pick broken-off pieces out of sugar bowls.

but this cannot be proved from the artifacts.

Rum is distilled from fermented sugar syrup or molasses (a by-product of sugar crystallization). Distillation of wines and beers to make more highly alcoholic beverages had been common in northern Europe since the late Middle Ages. Rum, first made in the English West Indies about 1630, became a very common drink in the North American colonies (McGee 1984:482) but it never achieved much popularity in the Netherlands where gin was the most popular distilled beverage (Schama 1987). Danckaerts, as noted in Chapter 5, commented on the amounts of rum drunk by New Yorkers circa 1680. Even though it was an important comestible, rum will be indistinguishable in the archaeological record from other distilled beverages, but it was a distinctive, non-Dutch, element that was incorporated into Dutch-American foodways.

SUMMARY OF DUTCH-AMERICAN FOODWAYS

1650-1700

Dutch-American foodways in the last half of the seventeenth century were very similar to Dutch foodways of the period. Nevertheless, various local foods had been substituted for European foods. Maize had been substituted for European grains in porridges, squash had been adopted as a vegetable, and native wild birds and fishes had replaced comparable European animals. Cider and rum, according to Danckaerts, were widely consumed. In spite of these substitutions, dairy products, wheat and rye breads, and beer were still dietary staples and European pigs, cattle, and chickens provided the bulk of the animal protein. Thus, in its general configurations the diet remained Dutch but in detail it had become Dutch-American: the types of foods -- grains, fish, dairy products -- eaten remained the same but varieties -- maize instead of wheat, local fish -- had changed. It is probable that the amounts of dairy products consumed were relatively lower than in the Netherlands;

cattle and dairy specialists (knowledgeable farm women) had been scarce before the 1650s and the effect of this deprivation on later periods has not been determined. Dairy products, especially cheese, are difficult to trace in the archaeological record, but it is known that at least some cheese was imported from the Netherlands and documentary evidence suggests that some was locally made. Per capita quantities, however, can not be estimated.

Food preparation and service related ceramics also remained Dutch in their general forms and uses during the last half of the seventeenth century. Coarse earthenwares - - grapen and skillets -- in Dutch forms continued to be used for food preparation. Faience plates adorned tables (and quite possibly mantelpieces). The origin of these ceramics is not as important as how they were used: whether the coarse earthenwares were made in the Netherlands or New York, and the faience in the Netherlands or England, patterns of use were Dutch-American.

Modification of foodways by the inhabitants of New Amsterdam/New York City was part of the adaptations necessary to their colonial situation. They, and their animals and crops, had to adjust to an environment that was similar to but not the same as their accustomed one. Along with some differences in temperature and moisture, the land was heavily wooded, except for fields already partially cleared by the Indians, and extensive and intensive clearing was necessary before European methods of agriculture could be implemented. In addition, there were initially few of the farmers needed to grow European crops; land was plentiful, but, as in the Chesapeake, available labor was a limiting factor. Scarcity of fresh European foods led the settlers to trade for foodstuffs with the Indians, which introduced them to maize and squashes and local fauna. The lack of food preparation specialists of both sexes and of women in general (who were responsible for most Dutch home-

prepared food) also probably resulted in simplification of food preparation methods.

Miller in his study of Chesapeake foodways as seen through faunal remains emphasized that many of the changes he documented occurred as the result of the development of the colony: land became less available; numbers of European domestic animals increased; and wild game became scarce when habitats changed as the result of European agricultural practices. The present study has been concerned with the foodways of a town rather than those of an agricultural colony, but at least some of the same factors noted by Miller were also in operation in New Amsterdam/New York City. Wild birds and animals, and possibly fishes and shell fish, decreased in quantities and/or size as encroachments on their natural territories and hunting by ever increasing numbers of colonists depleted their populations. There was also competition for food from, and destruction of habitats by, European animals, particularly free-roaming hogs.

1700-1740

After the turn of the century, types of food eaten did not change drastically, although consumption of beef and mutton increased while relative use of pork decreased. This was the direct result of increased availability of cows and sheep. Wild birds also became less important but local fish utilization increased.

Changes in food-related ceramic ware types and forms were more marked. Based on the available archaeological evidence, ceramic usage began to change during the first quarter of the eighteenth century: ceramics imported from Great Britain and locally-made earthenwares in British forms began to be common. Faience plates and Dutch-form cooking vessels were less frequent. The latest assemblage used in this study (the Carre deposit) was dominated by English salt-glazed stonewares and faience that could have been made

in England.

As noted above, conclusions drawn from the archaeological data are possibly biased by the paucity of Dutch households in Period 2. However, the available data are consistent with what is known about international trade in ceramics during the early eighteenth century. The British, as noted in Chapter 2, had seized control of nautical trade from the Dutch and were able to more tightly regulate the trade of their colonies. Their intent was to exclude merchants and manufactured goods of other countries. In addition, British potters had developed white salt-glazed stoneware as a practical substitute for porcelain and were able to take advantage of the North American market for tea and tablewares. British faience potters also profited from the exclusion of Dutch products and were able to send their own goods to New York.

Changes in the forms of locally-made redwares had other causes. In at least the Carre household, common earthenwares were British in form. This could have been due to a preference for British-shaped vessels or to the absence of potters making similar vessels in other traditions. The former concerns style; the latter concerns availability. The question of style is complex and requires much more archaeological data than is presently accessible. As for availability, the Dutch-born Bensons, as noted above, were working in New York until the mid-1720s, but evidence for potters circa 1725-1760 is scarce. It is highly probable that earthenware potters were active in New York City, or in nearby New Jersey, during this period but their places of training and ethnicities are not known. There is no technical reason why the English-form redwares could not have been made by the Dutch-trained Bensons, but the dates of the Carre assemblage (circa 1715-1740) make an assignment to the Bensons uncertain. Nevertheless, it is at least possible that earthenwares in both Dutch and English styles

were available to the Carre household and that they chose to purchase the latter.

CONCLUSION

The documentary and archaeological data have shown that the foodways of New Amsterdam/New York City were different from those of neighboring settlements in the Chesapeake and New England. They began as modified Dutch foodways and developed into Dutch-American foodways that continued to be distinctive, even though they were affected by the political transfer of the colony and the influx of non-Dutch settlers.

A historic ethnography of New York City in the late seventeenth century would emphasize the different kinds of changes in the city: governmental institutions had British forms; the Church of England was the established religion but official sanction was granted to the Dutch Reformed Church; many families educated their children in the Dutch language and spoke Dutch more often than English; and some merchants kept their accounts and ledgers in Dutch well into the eighteenth century. As for foods and food-related ceramics, what some households ate and how they prepared it remained recognizably Dutch.

CHAPTER 8: SUMMARY AND FUTURE RESEARCH

SUMMARY

This study was designed to reconstruct the foodways of the seventeenth- and early eighteenth-century inhabitants of Manhattan Island. The investigation was approached as a historic ethnography (Schuyler 1988) with two main centers of interest: first, the comparison of Dutch-American to Dutch foodways and, second, the exploration of how foodways changed after the British assumption of political power in 1664.

In order to compare Dutch to Dutch-American foodways, it was first necessary to reconstruct Dutch seventeenth-century foodways. This was accomplished through the perusal of primary and secondary documents and the examination of genre paintings. The genre paintings were an excellent source for visual descriptions of artifacts and for their actual use in food preparation and service.

Foodways in New Amsterdam/New York City during the seventeenth century were reconstructed using documentary sources and archaeologically-recovered ceramics and faunal material. The reconstructed foodways proved to be very similar but not identical to Dutch foodways in both the types of foods eaten and the ceramic artifacts used to prepare them. There was reliance on European domestic mammals, birds, and grains as mainstays of the diet, but maize had replaced European grains in some dishes, specifically porridges, and Indian-domesticated vegetables and wild fruits were eaten. In the Netherlands, locally-available fish were an important food and the same situation prevailed in the new world: fish that could be found in the waters around Manhattan Island were extensively utilized. Wild birds were also eaten.

Dairy products (cheese and butter) were fundamental parts of Dutch foodways but evidence about the importance of

cheese in the diet of the colonists is scanty. Documentary sources (Chapter 5) mention scarcity of dairy products before 1650. However, it has not been determined if the increase in cattle after mid-century resulted in proportionate increases of consumption of butter and cheese.

The distinguishing features of Dutch ceramic assemblages were the presence of distinctive food-preparation vessels (grapen, skillets, and colanders) and high numbers of plates. These features were also found in Dutch-American ceramic assemblages.

At present, it is not possible to compare Manhattan foodways in the 1624-1664 period to those from 1664-1700 because there is insufficient archaeologically-recovered data from the New Netherland period. However, comparisons between ca. 1650-1700/10 and ca. 1700-1740 faunal material show some changes in animal utilization: domestic animals and birds continued to be important but wild bird consumption declined and local fish exploitation increased. Cattle bone, in this sample, was less abundant than pig before the turn of the eighteenth century but became the most numerous type of bone afterwards. Sheep bone also increased.

Ceramic ware types and forms also changed after 1700. Imported English wares became common and at least some local redwares were made in English forms. Dutch-form cooking vessels decreased as did relative amounts of ceramic plates, although ceramic drinking vessels became more common.

The changes that were observed after 1700 could have been caused by several factors. Some of the faunal changes were most probably caused by environmental factors; wild birds became less available as their habitats were destroyed by European methods of land use and their numbers depleted by extensive hunting. Pigs had been the most important domestic animal in earlier years because they adapted most easily to foraging for some of their own food and because

pigs increase at a much more rapid rate than either cows or pigs. When numbers of cows and sheep increased, these species were more frequently slaughtered for meat.

Ceramic changes were due at least in part to England's dominant position in trans-Atlantic trade. England had extended her trading power at the expense of Dutch mercantile interests during the last half of the seventeenth century. Thus it is probable that one reason for the replacement of Dutch earthenwares by English stonewares and earthenwares was because English merchants had more access to the New York market.

Other reasons for the changes observed in food-related ceramics are more problematic. The subject of how political domination affects food is complex. In New York City the question is further complicated by questions of ethnicity and economic status. As noted by both Rothschild (1990) and Goodfriend (1975), New Yorkers in the late seventeenth and early eighteenth centuries could have aligned themselves with each other based upon their ethnic background, their political affiliation, their occupation, and their economic status. All of these factors could have affected food-related ceramics if they influenced the way people prepared or served food. A much larger archaeological sample from a greater variety of households is necessary before the question of how these factors are related to choices about food can be examined.

IMPLICATIONS FOR ARCHAEOLOGICAL RESEARCH ABOUT FOODWAYS

The present research, and other studies, have noted the problems of reconstructing foodways from the limited remains found in archaeological contexts. Many foods and artifacts leave no trace in the archaeological record and their presence can only be inferred from documentary and visual sources. Metal artifacts and many vegetable foods, in particular, are usually not preserved. Preserved and

recovered faunal and artifactual materials provide data that is not contained in documents and pictures, but no source is complete without the others; as many forms of information as are available must be used when attempting to discuss foodways.

Dutch seventeenth century genre painting proved to be a valuable resource for reconstructing foodways, in spite of the omission of some types of foods. It should be possible to use genre paintings from other periods or places in similar studies. In particular, Flemish (Southern Netherlands) artists of the same period painted many genre scenes and pictures by Teniers, Jordaens, and others are as lively and informative as those of Steen and the other northerners. Some painters, for instance Jan de Heem, spent parts of their working lives in both the northern and southern Netherlands.

Some seventeenth century Spanish artists painted genre scenes that include depictions of food preparation or consumption. Even though a state of war existed between Spain and the Netherlands for much of the late sixteenth and seventeenth centuries, it is obvious that painters in both countries were aware of each others' works and that genre paintings also had an audience in Spain. A Velazquez painting, for example, which was temporarily on exhibit at the Metropolitan Museum of Art, is entitled "An Old Woman Cooking Eggs." It clearly shows eggs cooking in oil in an earthenware pan over a brazier as well as a large hard cheese, a glass bottle with oil, onions, a faience dish, two earthenware jugs, a wooden spoon, a metal knife, a brass mortar and pestle, and what might be chili peppers. Velazquez also painted a number of paintings, which have been called "Serving Girl," that show women in kitchen settings (Byrnes 1963:Plate 19). Other seventeenth century Spanish painters of genre scenes included Jan van der Hamen y Leon (son of a Brussels painter who settled in Spain) and

Francisco de Zurbaran and his followers.

Naples was part of the Spanish empire in the seventeenth century and art historians have noted connections between Neapolitan and Flemish art at this time. Three such still lifes are illustrated in Byrnes (1963:Plates 26-28). The painting by Giuseppe Recco shows a variety of small whole fishes -- one of which is being pilfered by a cat.

Eighteenth century French painters also indulged in genre scenes but some of them, particularly those of Chardin and Greuze, have a self-conscious prettiness that might indicate that only sufficiently refined subjects and people were depicted. Nevertheless, many still-lifes and household scenes depict foods and food-related artifacts. One such is Chardin's "The Tea Pot," in the collection of the Museum of Fine Arts, Boston. This painting shows a plain white faience or porcelain teapot and a variety of fruits (figs, grapes, and a pear).

Nineteenth century American genre paintings are another possible source, although these works are colored by the explicit desire of the artistic establishment to encourage the depiction of scenes that expressed the most ennobling and distinctively American traits of the new "national character" (Johns 1991). Artists such as William Sidney Mount, Francis William Edmonds, George Caleb Bingham, and Lilly Martin Spencer painted images of contemporary events and used artifacts as props. Spencer, as befitted the only woman of this group of genre painters, concentrated on domestic subjects and some of her best known works show women engaged in food preparation (Johns 1991:160-175). Her painting "Shake Hands?" shows a woman standing in a kitchen surrounded by a plucked chicken and a variety of vegetables while she mixes dough in a large stoneware or earthenware bowl with her floured hands.

Genre painting also enjoyed some popularity in England

during the eighteenth century (although genre printed engravings were more common) and Germany during the nineteenth century (Johns 1991). Archaeologists working with the material culture of these times and places should find them informative.

FUTURE RESEARCH: FOODWAYS

As noted in the discussion of question 5 in Chapter 7, the archaeological sample that was available for this study was limited in its diversity. The neighborhood from which the deposits came had a majority of Dutch residents in Period 1 and a majority of English or Huguenot residents in Period 2: there were no deposits from prosperous English or Huguenot households in Period 1 and only one small deposit from a prosperous Dutch household in Period 2. There were also no households of middling means in this sample. Any future research about New Amsterdam/New York City foodways in the seventeenth and eighteenth centuries would benefit immensely from further excavations and the recovery of deposits from a greater variety of households, or at the least the excavation of more of the same kinds of households to increase the size of the sample.

Comparative material from other settlements in New Netherland, especially Albany, would also be useful. Albany, by all accounts, remained more visibly Dutch in its architecture and in the language and customs of its people than was the case in New York City during the eighteenth century. It would be especially interesting to compare food-related ceramics in the two areas. It would also be worthwhile to examine the persistence of Dutch food-related ceramic forms (earthenware grapen, skillets, and colanders) in rural areas in order to see if they were in use after the first quarter of the eighteenth century.

Examination of shipping and notarial records, both in the United States and the Netherlands, might yield

information about the extent of imports of cheese, herring, beer (and its ingredients), other foodstuffs, and ceramics. A brief examination of the New Netherland shipping records at the Gemeentelijke Archief van Amsterdam showed that there are some references to specific goods, although the references to food and household goods are usually too general for quantification.

New Netherland, as noted in Chapter 2, was a relatively unimportant part of the Dutch colonial empire, although it was the place most like the Netherlands in climate.

According to Boxer (1965:256)

Here, [New Netherland] at any rate, Dutch colonists did not have to contend with a tropical soil and climate, or with a preponderately Roman Catholic population, but with natural conditions which resembled those of their own country in some ways. Here, if anywhere, a Dutch colony could be founded where men could live, work and worship in much the same way as they had done at home.

Dutch-American foodways were very similar to those of the Netherlands. If, as noted in Chapter 7, one of the reasons for this similarity was the relatively small differences between the two areas, it could be assumed that foodways of Dutch colonists in other parts of the world would have changed to a greater extent.

One area that would be particularly interesting to compare to New York is South Africa, specifically Cape Town. The two share a history of colonization by the Dutch and later annexation by the English, although in South Africa the English did not come in until the turn of the nineteenth century (Boxer 1965:291). Cape Town was also settled somewhat later (1652) and did not become self-sufficient in food production until the 1680s (Boxer 1965:274-276). Within the past several years, South African and United States archaeologists have begun to investigate seventeenth and eighteenth century Dutch colonial sites and the possibilities for comparative research are beginning to be apparent.

The most profitable and long-lasting Dutch colonies were in the Indonesian archipelago. This area has a very different climate than the Netherlands and the Dutch encountered local populations who were more numerous and more persistent (since they were much less subject to decimation from European diseases) than in North America. There was also much more intermarriage, or at least cohabitation, between Dutch men and Asian women than was the case in New Netherland (Boxer 1965:241-259). Present-day Dutch foodways show some Far Eastern influence -- restaurant "rijkstaffels" are the most conspicuous -- but, to the best of my knowledge, no archaeologist has investigated Dutch colonial foodways in Indonesia.

Deshima was an unusual Dutch settlement. When Japan closed its doors to foreigners in the mid-seventeenth century, the Dutch were allowed to keep a trading post at Deshima, on the island of Nagasaki. The settlement was isolated from the rest of Japan and its only contact with Europe was through seasonal trading vessels. From 1640 to 1854, Deshima was the only sanctioned avenue for the passage of information between Japan and Europe (Boxer 1965:267). The Dutch officials who lived here were dependent on the Japanese for all of their domestic arrangements and they were maintained as a strictly segregated group. This would be an extremely interesting area to excavate, if any remnants of the settlement remain under the modern city.

The Dutch also had settlements in the Caribbean and South America: in Brazil before the Portuguese expelled them in 1654 and in Surinam. Surinam, and some of the Caribbean Islands, still have political ties to the Netherlands. Many of these settlements were more trading posts than colonies, but the potential for comparative studies in Dutch colonial archaeology is vast.

FUTURE RESEARCH: MATERIAL CULTURE AND ETHNIC IDENTIFICATION

As noted in Chapter 5, various travelers (Danckaerts, Knight, and Kalm) who wrote about New York during the late seventeenth to the mid-eighteenth centuries noted that there were observable differences that marked some people as "Dutch." Mrs. Knight was the most specific when she said that "Dutch" women did not dress according to the English fashion (Knight 1901:63). Danckaerts was less specific but the inference from his writings is that he identified people on the basis of language and where they, or their parents, were born. Kalm thought that he observed a change occurring in New York City society at the time of his travels (mid-eighteenth century). According to Kalm, younger members of the Dutch-American community were becoming more anglicized than their parents in their language, their church affiliation, and their "manners" (Kalm 1987:142, 626).

These statements support the opinion expressed by Goodfriend (Chapter 2) that ethnic identity was an important defining characteristic for New Yorkers during the late seventeenth century. Rothschild noted that neighborhoods at the beginning of the eighteenth century did not have equal distributions of the three major ethnic groups (English, Dutch, and Huguenots) but instead many people chose to reside near members of the same group, in geographic clusters centered around churches (Rothschild 1990:83-103). Thus it seems that some people continued to identify themselves or to be identified as "Dutch" New Yorkers.

It has been suggested that "items of local origin will be better indicators of ethnic identification than those of greater distance, with the exception of intrusive items having high symbolic value" (Kelly and Kelly 1978:138). Two classes of material culture with high symbolic values -- silver and furniture -- should be interesting to examine from this theoretical perspective, although such studies are beyond the scope of the present research. However, a few

observations are briefly noted in Appendix E. Another possible line of inquiry is house size and style, as demonstrated in Rothschild (in press).

The study of Dutch colonial material culture using the methods and theories of anthropological archaeology has been a subject of investigation for less than twenty years. This study has been concerned with a part of that material culture. It is to be hoped that excavations will continue in all the areas of the world where the Dutch established colonies and that comparative studies will become common.

GLOSSARY

bak - coarse earthenware cooking and/or food service vessel; generally with two handles and usually a footring but sometimes lobed or tripodal feet; most closely translated as bowl

bakje - small vessel with one or, more commonly, two handles which may be either horizontal or vertical loops; bases may have footrings or be solid and flat, or, rarely, may be tripodal; most closely translated as small bowl.

beker - cup; beaker; goblet

bellarmine - German stoneware bottle decorated with a man's bearded face and, usually, a large sprigged medallion

bekerschroef - ornate metal (gold and/or silver) goblet holder

bird on the rock - chinoiserie design centered on a bird perched on a boulder; variation is an insect substituted for the bird. (add info re. dates and sources for this info)

bord - plate (houten bord - trencher)

bordje - small coarse earthenware dish used for salt, olives, fruit, etc.

bottle - "a bulbous-bodied ... vessel with a neck narrower than a jug or ewer, with or without a handle" (Beaudry et al. 1983:31)

charger - large plate used for food service

colander - food preparation vessel; similar in form to a deep dish or a bowl with holes pierced before glazing

dish - serving vessel, circular and often with a wide brim, made in shallow to deep forms but not as deep as a bowl

druipschaal - flat colander

faience - refined earthenware with tin-enamel on all surfaces

fles - bottle; (zuur-fles - pickling jar)

grape (also spelled graap) - pipkin with tripodal feet and one or two handles (plural is grapen)

jug - "A handled vessel of bulbous form with a cylindrical neck rising from a pronounced shoulder, with or without a gutter. In size, jugs range from small drinking vessels to large serving vessels..." (Beaudry et al. 1983:30)

kabelrand - Twisted cable design used as a border on majolica and, less frequently, faience plates.

kan - jug, can, mug, tankard

kom - basin, bowl, generally of refined earthenware or porcelain;

komfoor - chafing-dish

kopje - cup (lit. head); distinguished from a bakje by having only one handle, a smaller size, straighter sides, and a base which is not indented

kroes - mug, cup

kruik - stone bottle, jar, pitcher

lampet kan - water jug, ewer

lampet kom - wash basin (also wash kom)

majolica - refined earthenware with tin-enamel on the face/interior and lead glaze on the back/exterior

melkkan - similar in shape to a pitcher but with a wide mouth and no constriction at the neck

pan - pan, i.e. a deep vessel with straight or angled sides used for food preparation

papkom - porringer (see below)

pipkin - "The handled pipkin is a small, bulbous cooking pot, frequently with a rod handle ... [or] a vessel with two ears and three legs. While the form is a metal one, it was occasionally copied in coarse earthenwares" (Beaudry et al. 1983:34)

pitcher - "a handled vessel with bulbous body, having a flaring neck with a gutter" (Beaudry et al. 1983:31)

po - chamber pot

pootje - small foot on the bottom of a grape, testje, or steelpan.

porringer - "A vessel usually hemispherical in shape and shallower in relation to its diameter than a cup or a pot

... [with] at least one and sometimes two handles, either horizontal or vertical" (Beaudry et al. 1983:32)

pulled foot - lobed foot which is pulled out by the potter from the excess clay at the base of a vessel; usually there will be three pulled feet on a vessel

roompot - cream pot, similar in shape to a grape but with the addition of a nozzle spout for pouring off cream

schaal - dish, plate, bowl; a general term for ceramic vessels, but most specifically translated as dish

schotel - dish, platter, charger

schoteltje - saucer

"seventeenth century rim" - double-curved, in profile is slightly bulbous on upper curve and sharp on lower curve, seen on many grapen

steelpan - skillet or saucepan

testje - earthenware brazier

vergiet - deep colander

vuurklok (fire guard) - half or full round coarse earthenware vessel designed to be placed over a fire at night; the full round forms are earlier and were used with fires set in the middle of floors, the half round forms were placed against a hearth back wall

Wan li - chinoiserie style of border decoration featuring panels with Chinese sacred symbols and stylized

chrysanthemums; the only chinoiserie decoration used on
majolica

zalfpot - ointment pot

APPENDIX A
LIST OF RECIPES FROM THE 1668 EDITION OF DE VERSTANDIGE
KOCK, REISSUED IN 1973 BY BUIJTEN EN SCHIPPERHEIJN,
AMSTERDAM; TRANSLATED INTO ENGLISH

OF SALAD, STEWED GREENS OR FRUIT, COOKED AND STEWED HERBS,
GARDEN AND EARTH FRUITS

To Prepare Uncooked (Raw) Salad
To Make Celery Salad
To Make Artichoke Salad
To Prepare (Dress) All Sorts of Cooked Salads
To Stew Peapods
To Stew Summer Turnips
To Stew Summer Turnips in Another Manner
To Stew Garden Beans, Climbing Beans or Turkey Beans
To Cook Vegetable Mashs
To Stew All Sorts of Greens
To Make a Chervil Soup
To Make Currant Soup
To Stew Cauliflower or Savoy Cabbage
To Prepare Savoy Cabbage in the Spanish Manner
Of Asparagus
Various Ways to Stew Artichokes When They Are Ripe
Another Manner

OF ALL SORTS OF MEAT

To Stew Sheep's Flesh
To Stew a Calf's Shank with Green Herbs
To Stir (Scramble) Smoked Meat with Eggs
To Make a Spanish Hutspot
To Stew a Hen with Greens
To Stew a Hen with Sorrel
To Stew a Hen with Rice
To Make a Hen with Cauliflower, or a Common Oliopodrigo
To Make a Pullet Fricasse
To Stew a Hen with Orange Peel
To Prepare a Lemon Veal-heart
To Stew Hens and Pigeons with Bacon
To Stuff Pigeons
To Cook Young Hens, Turkey or Ducks
To Prepare a Live Pigeon in an Hour or an Hour and a Half
To Stew a Sirloin OF Mutton
To Make a Sirloin Mutton in the English Manner with a Sauce
To Stew a Mutton Loin, or Hutspot with Artichokes
To Stew a Mutton Loin, or Hutspot with Spersies
To Make a Sauce for a Sirloin
To Make Meat Balls
To Make Meat Balls Neatly
To Make Meat Balls in Cabbage Salad
To Make Meat Balls Another Way
To Prepare a Hind Quarter with Sauces
Roasted Chicken with a Sauce in the French Manner

To Stuff and Roast a Hen or Capon with Oysters
 To Stew a Duck
 To Make Sauce for a Roasted Duck
 To Make a Sauce of Rabbit Giblets
 To Make a Sauce for Roasted Rabbit
 To Make a Sauce Over a Roasted Hare, Rabbit, or Veal Rib,
 Venison or Beef
 To Make a Sauce for a Hare
 A Sauce for a Hare, in Another Manner
 To Make a Pepper Sauce for a Roasted Hare, Rabbit, or Beef
 To Make a Sauce for Meat
 To Make a Sauce for Meat, in Another Manner
 To Make a Good Olipodrigo
 To Make a Costly Olipodrigo
 To Stew a Beef Hutspot in the Brabant Manner
 To Make a Dish with Veal
 To Stuff a Suckling Pig
 To Roast a Capon in the Spanish Manner
 To Make a Hutspot with a Capon
 To Stuff a Hen
 To Make a Asjee
 To Make Hash
 To Stuff a Rabbit
 Rabbit in Another Manner
 To Make a Beef Tongue
 To Stew a Mutton Loin with Horseradish
 To Stew a Hutspot with Many Things
 To Stew Calf's Feet
 To Make a Sauce for Partidge or Field-Hens or Pigeons or
 Doves
 The Same in Another Manner
 To Make a Proper Sauce
 To Cook A Goose with the Flavor of Carrots
 To Stuff a Goose or Duck
 To Fry Calf's Ears

OF ALL SORTS OF FISH

To Roast a Piece of Sturgeon
 To Roast a Bream on the Spit
 To Roast a Tail of a Pike on the Spit
 To Boil a Pike in the Spanish Way
 To Boil a Pike or Blue Carp
 To Prepare a Pike in the French Manner
 To Stew Salmon in Another Manner
 To Stew a Carp in the High German Manner
 To Stew Cod
 To Make Eel
 To Stew an Eel
 To Make a Hutspot of Sturgeon
 To Make a Sauce for Salted Sturgeon
 To Prepare Salted Sturgeon
 To Boil Lobsters or Crabs

To Make a Good Dish of Crabs or Lobsters
To Stew Oysters or Mussels
To Bake Mussels in the Pan

OF ALL SORTS OF BAKED GOODS

To Make a Sweet Caudle
To Make a Custard
To Make an Apple Flan
The Same Again
To Make Apple Flan in Another Manner
To Bake Oblen [a type of pancake]
To Bake Doughnuts
To Bake Cakes of Eggs or Poffenbrodt (another type of pancake)
To Bake a Delicate Pudding
To Cook a Pudding That is Uncommonly Good

OF ALL SORTS OF PIES

To Make Dough for Pies
To Make a Dough Crust without Butter
To Make Almond Pie
To Make a Pear Pie
To Make an Apple Pie
Another Way to Make an Apple Pie
Yet Another Way to Make an Apple Pie
To Make an Apple Pie in the Walloon Manner
To Make a Cherry Pie
A Cherry Pie in Another Manner
To Make a Chervil Pie
Chervil Pie in Another Manner
To Make a Thorn Apple Pie
To Make a Meat Pie
To Make a Marrow Pie
To Make a Lemon Pie
To Bake a Candied Peel Pie
To Make a Cream Pie
To Make a Cheese Pie
To Make an Apricot Pie
To Make a Plum Pie
To Make a Green Spinach Pie
To Bake a Shoemaker's Pie
To Make a Pie of Calf's Tongue
To Make a Pie of Calf's Feet

OF MANY KINDS OF PASTIES WITH THEIR SAUCES

To Make a Beef and Bacon Pasty
To Make a Sour-Lemon Pasty
To Make a Hen Pasty
To Make a Chicken Pasty
To Make a Young Chicken Pasty
To Make a Finch Pasty
To Make a Tasty Pot-pasty

DE HOLLANDTSE SLACHT-TIJDT

Instructions For How People Can Provide Themselves with
Supplies of Meat Against the Winter

The Preparation of the Tub [i.e., the salting tub]
To Salt the Meat
To Smoke the Meat
Of Pigs

Of the Offal

Of the Head Meat
To Preserve the Head Meat
To Roll Tripe
Of the Feet
To Keep Tripe, Feet and Muzzles and to Free Them of Mold and
Decay
To Make Pork Sausage
To Make Beef Sausage
To Make Groat Sausage
To Make Sausage
To Make Pork Liver Sausage

APPENDIX B DUTCH GENRE PAINTINGS INCLUDED IN THIS STUDY

PAINTER	TITLE	DATE	LOCATION ¹
PIETER AERTSEN	1508/9-1575 The Butcher's Shop	1551	Uppsala Universitets Konstmuseum, Uppsala
	Kitchen Scene	ca. 1565	Rijksmuseum, Amsterdam
CORNELIUS BEGA	1631/32-1664 Merry Company in a Tavern	ca. 1661	Musees Royaux des Beaux-Arts de Belgique, Brussels
JOB BERCKHEYDE	1630-1693 Interior of a Bakery Shop	ca. 1660	Dienst Verspreide Rijkskollekties, s'Gravenhage
	The Bakery Shop	ca. 1680	The Allen Memorial Art Museum, Oberlin College, Oberlin, Ohio
	The Baker	ca. 1681	Worcester Art Museum, Worcester, Massachusetts
	Hornblowing Baker	1681	Deutsches Brotmuseum, Ulm

¹. When the present location of the work is unknown or if the painting is in an anonymous private collection, the publication or pictorial archive in which a reproduction of the painting is included is listed.

JOACHIM BEUCKELAER 1530/5-1573 ¹ The Well-Stocked Kitchen with Christ in the House of Mary and Martha	1566	Rijksmuseum, Amsterdam
Kitchen Still Life with Christ at Emmaus	ca. 1566	Mauritshuis, The Hague
HENDRICK BLOEMAERT 1601-1672 Grocery Seller with Boy	1623	Barnes 1988:20
MAERTEN BOELEMA active 1642-1664 Still Life	1642	Segal 1988:239
ISAIAH BOURSSE 1631-1672 Woman Cooking Beside An Unmade Bed	1656	Wallace Collection, London
ADRIAN BROUWER 1606-1638 The Pancake Baker	mid-1620s	Philadelphia Museum of Art, Philadelphia
The Smokers (The Peasants of Moerdijk)	1627-1630	Sutton 1984:164
Fight Over Cards	1631-1635	Bayerische Staatsgemaldesammlungen, Alte Pinakothek, Munich
Singing Drinkers	1635-36	Sutton 1984:167
Peasants Fighting at Cards	--	Gemaldegalerie, Dresden
Scene at an Inn	--	Museum Boymans-van Beuningen, Rotterdam
Soldiers Playing Dice in a Tavern	--	Bayerische Staatsgemaldesammlungen, Alte Pinakothek, Munich

Village Surgery	--	Bayerische Staatsgemaldehydesammlungen, Alte Pinakothek, Munich
JAN BUESEM ca.1600-1649 Peasant Meal (<u>Boerenmaltilid</u>)	--	Rijksmuseum, Amsterdam
WILLEM BUYTWECH 1591/92-1624 Merry Company in the Open Air	1616-1617	Gemaldehyegalerie, Staatliche Museen Preussischer Kulturbesitz, Berlin
PIETER CIAESZ 1597/8-1661 Still Life with Leiden Cheese	ca. 1623	Segal 1988:236
Still Life with Herring, Roemer, and Stone Jug	1635	Museum of Fine Arts, Boston
Still Life with Fish, Roemer, and Melted Butter	1642	Museum of Fine Arts, Boston
Still Life with Fish and Grape Vine	1647	Rijksmuseum, Amsterdam
Still Life with Herring, wine, and Bread	1647	Los Angeles County Museum of Art
Still Life with Herring Beer and Bread	--	Museum Boymans-van Beuningen, Rotterdam
Still Life with Turkey Pie	--	Rijksmuseum, Amsterdam
Still Life with Pewter Salt Cellar	--	Rijksmuseum, Amsterdam

REYNIER COVIJN 1637-1667		
The Kitchen	--	K.D.C. ²
Interior	--	K.D.C.
Slaughtered Pig	--	K.D.C.
The Milkwoman	--	K.D.C.
JACOB CUYP 1594-1651		
Kitchen Scene #1	--	K.D.C.
Kitchen Scene #2	--	K.D.C.
PIETER DE BLOOT 1610-1658		
Peasant Interior #1	--	K.D.C.
Peasant Interior #2	--	K.D.C.
Family Meal	--	K.D.C.
Slaughtered Pig	--	K.D.C.
Woman Plucking a Fowl	--	K.D.C.
Peasant Interior with Chickens and a Cat	--	K.D.C.

². Pictures whose location is given as "K.D.C." were viewed as photographs or xeroxes in the collection of the Kunsthistorisch Dokumentstudie Centrum of the Koninklijke Bibliotheek (the Center for the Study of Art History of the Royal Library) at the Hague. These scenes were generally untitled and I have given them simple descriptive names.

JOSEPH DE BRAY working mid-century			
Still Life with Poem	1657		Gemaldegalerie, Dresden
"In Praise of the Herring"			
BARENT FABRITIUS 1624-1673			
The Satyr and the Peasant	--		Wadsworth Atheneum, Hartford
JAN DE HEEM 1606-1683/84			
Interior	1631		stedelijk Museum, De Lakenhal, Leiden
Still Life (with lobster)	ca. 1640		The Metropolitan Museum of Art, New York
Still Life with Parrots	ca. 1642		The Ringling Museum of Art, Sarasota, Florida
Sumptuous Still Life	ca. 1645		Rijksdienst Beeldende Kunst, The Hague
Still Life with Lobster, Ham, and Fruit	ca. 1648		Museum Boymans-van Beuningen, Rotterdam
Still Life with a Pie	1649		Segal 1988:242
PIETTER DE HOOCH 1629-1684			
Two Women Teaching a Child to Walk	--		Museum der Bildenden Kunste, Leipzig
Woman Preparing Vegetables	1657		Musee du Louvre, Paris
Two Women in a Courtyard	1657		Collections of Her Majesty Queen Elizabeth II
Woman and her Maid in a Courtyard	1658		National Gallery, London
Woman Drinking with Two Men and A Maidservant	1658		National Gallery, London

Woman Drinking with Soldiers	1658	Musee du Louvre, Paris
Woman Nursing an Infant, with a Child Feeding a Dog	1658-60	The Fine Arts Museums of San Francisco
The Pantry	ca. 1660	Rijksmuseum, Amsterdam
Lady and Maid	1660-65	The Hermitage, Leningrad
Woman Peeling Apples	ca. 1663	Wallace Collection, London
Interior with Two Women at a Linen Chest	1663	Rijksmuseum, Amsterdam
The Country Cottage	--	Rijksmuseum, Amsterdam
CORNELIUS DELFT 1571-1643 Woman Scaling Fish, Man with Bird	--	K.D.C.
Still Life with Peasant Woman in Background	--	Byrnes 1962: Plate 17
Kitchen Interior	--	Byrnes 1962: Plate 16
JAN JANSZ. DEN UYL 1595/6-1640 Still Life	1638	Segal 1988:239
ABRAHAM DIEPRAAM 1622-1670 Barroom	1665	Rijksmuseum, Amsterdam

GERARD DOU 1613-1675		
Woman Eating Porridge	1632-1637	Sutton 1984:183
Girl Chopping Onions	1646	Collections of Her Majesty Queen Elizabeth II
Kitchen Scene	1645-1650	Musee Fabre, Montpellier
Village Grocer	1647	Musee du Louvre, Paris
The Quack	1652	Museum Boymans-van Beuningen, Rotterdam
The Young Mother	1658	Mauritshuis, The Hague
A Poulterer's Shop	--	National Gallery, London
CORNELIUS DUSART 1660-1704		
The Fish Market	1683	Rijksmuseum, Amsterdam
Pipe Smoker	1684	Sutton 1984:197
NICOLAES GILLIS ca. 1580-1632		
Still life	1612	Segal 1988:230
FRANS HALS ca. 1580-1666		
Merrymakers at Shrovetide	ca. 1615	The Metropolitan Museum of Art, New York
Mealtime [<u>Maaltijd</u>] of the Officers of the St Jorisdoelen	1616	Frans Hals Museum, Haarlem
Mealtime [<u>Maaltijd</u>] of the Officers of the Cluveniersdoelen	1627	Frans Hals Museum, Haarlem
Officers of the St. Jorisdoelen	1627	Frans Hals Museum, Haarlem

with NICOLAS VAN HEUSSEN
Vegetable Seller

ca. 1630

K.D.C.

WILLEM CLAESZ HEDA 1594-1680/82
Still Life with Blackberry
Pie

1631

Gemaldegalerie, Dresden

Still Life

1634

Museum Boymans-van Beuningen, Rotterdam

Still Life with
Roemer, Tazza and Mug

1634

Rijksmuseum, Amsterdam

Still Life with
Roemer and Lemon

1634

Segal 1988:238

Pronk Still Life with
Oysters

1635

Rijksmuseum, Amsterdam

Breakfast with Crab

1648

The Hermitage, Leningrad

Still Life

ca. 1650

Rijksmuseum, Amsterdam

Still Life

1656

The Museum of Fine Arts, Houston

Still Life with Tazza
and Gold Goblet

--

Rijksmuseum, Amsterdam

MELCHIOR d'HONDECOETER 1636-1695

Dead Birds

mid 1660s

Museum Boymans-van Beuningen, Rotterdam

Still Life of Game

1668

Sullivan 1984:55

Dead Game

1681

The Hermitage, Leningrad

WILLEM KALF 1619-1693			
Dessert (Still Life)	1653-54	The Hermitage, Leningrad	
Still Life with Wine	1663	The Cleveland Museum of Art, Cleveland	
Still Life with Ginger Jar	1669	Indianapolis Museum of Art, Indianapolis	
Still Life with Lobster	--	National Gallery, London	
Still Life with a Nautilus Goblet	--	Thyssen-Bornemisza Collection, Lugano	
Still Life with Lemons and a Porcelain Bowl	--	Rijksmuseum, Amsterdam	
NICOLAES MAES 1634-1693			
Woman Plucking a Duck	1655-1666	Philadelphia Museum of Art, Philadelphia	
Young Girl Peeling Apples	1655-1660	The Metropolitan Museum of Art, New York	
The Idle Servant	1655	National Gallery, London	
Maid Peeling Parsnips	1655	National Gallery, London	
The Eavesdropper	1657	Dienst Verspreide Rijkskollekties, The Hague	
Old Woman Praying (also called Prayer without End and The Blessing)	ca. 1655	Rijksmuseum, Amsterdam	
Child with Waffle	--	K.D.C.	
Old Woman Praying #2	--	K.D.C.	
Woman Slicing Bread	--	K.D.C.	
Family Meal	--	K.D.C.	

GABRIEL METSU 1629-1667			
The Hunter's Gift	1658-1660	The City of Amsterdam, on loan to the Rijksmuseum	
The Sick Child	ca. 1660	Rijksmuseum, Amsterdam	
Vegetable Market at Amsterdam	ca. 1660-65	Louvre, Paris	
The Artist and his Wife	1661	Rijksmuseum, Amsterdam	
The Old Drinker	--	Rijksmuseum, Amsterdam	
Woman with Reflecting Oven	--	K.D.C.	
Twelfth Night Party	--	K.D.C.	
Woman with Fish	--	K.D.C.	
Woman at a Hearth	--	K.D.C.	
Woman Frying Pancakes	--	K.D.C.	
Woman with Wine Glass	--	K.D.C.	
Woman Cooking Over a Chafing Dish	--	K.D.C.	
several scenes of women scrapping carrots or scaling fish in courtyards	--	K.D.C.	
JAN MOLENAER 1600/10-1668			
Saying Grace	--	Rijksmuseum, Amsterdam	
CASPAR NETSCHER 1639-1684			
Chaff Cutter with a Woman Spinning and a Young Boy	1662-1664	Philadelphia Museum of Art, Philadelphia	

The Kitchen	--	Staatliche Museen, Berlin
NORTHERN NETHERLANDS SCHOOL Portrait of a Family	1627	Rijksmuseum, Amsterdam
J. OCHTERVELT 1634-1682 The Gallant Gentleman	--	K.D.C.
PIETER DE RING working mid-century Still Life with Porcelain	before 1660	Rijksmuseum, Amsterdam
GEERTRUID ROGHMAN 1625-before 1658 Woman in Kitchen Interior (engraving)	ca. 1650s	Atlas van Stolk, Rotterdam
J.A. ROTJUS working mid-century Still Life with Porcelain	ca. 1650	Rijksmuseum, Amsterdam
CORNELIUS SAFJLEVEN 1607-1681 Barn Interior	1665	Hood Museum of Art, Dartmouth College
KAREL SLABBAERT 1619-1654 Plucked Cockerel	--	Bredius Museum, The Hague
HENDRICK SORGH 1609/11-1670 Musical Company (The Lute Player)	1661	Rijksmuseum, Amsterdam
Vegetable Market	1662	Rijksmuseum, Amsterdam

JAN STEEN 1625/26-1679		
The Marriage Contract	ca.1650	The Hermitage, Leningrad
The Lean Kitchen	ca.1652/4	Canadian National Gallery of Art, Ottawa
Girl Eating Oysters	1658-60	Mauritshuis, The Hague
The Leiden Baker Arent Oostwaard and his wife	ca. 1658	Rijksmuseum, Amsterdam
Prayer Before the Meal	1660	The Walter Morrison Collection, Sudeley Castle, Winchcombe, Gloucestershire
The Oyster Meal	1660	Sutton 1984:309
Prinsjesdag (The Prince's Birthday)	1660	Rijksmuseum, Amsterdam
The Poultry Yard	1660	Mauritshuis, The Hague
The Courtyard	ca. 1660	Staatliche Museen, Berlin-Dahlem
Easy Come, Easy Go	1661	Museum Boymans-van Beuningen, Rotterdam
Twelfth Night	1662	Boston Museum of Fine Arts
Beware of Luxury	1663	Kunsthistorisches Museum, Gemaldegalerie, Vienna
The Dancing Couple	1663	National Gallery of Art, Washington
Merry Family/As the Old Sing so the Young Pipe	1663	Mauritshuis, The Hague
Inn with Violinist and Card Players	1665-68	Collections of Her Majesty Queen Elizabeth II
The Dissolute Household	ca. 1668	Wellington Museum, London

The Twelfth Night Feast	1668	Kunstsammlungen, Kassel
Family Scene	--	Rijksmuseum, Amsterdam
The Parrot's Cage	--	Rijksmuseum, Amsterdam
Merry Family/As the Old Sing So the Young Pipe	--	Rijksmuseum, Amsterdam
Two Kinds of Games	--	Rijksmuseum, Amsterdam
Village Wedding	--	Rijksmuseum, Amsterdam
After The Drinking Bout	--	Rijksmuseum, Amsterdam
The Feast of Saint Nicholas	--	Rijksmuseum, Amsterdam
The Feast of Saint Nicholas	--	Museum Boymans-van Beuningen, The Hague
The Painter's Family	--	Mauritshuis, The Hague
The Fat Kitchen	--	Cheltenham Art Gallery (Schama 1987:154)
The Thin Kitchen	--	Cheltenham Art Gallery (Schama 1987:154)
Tavern Scene	--	National Gallery, London
Man Offering Oysters To a Woman	--	National Gallery, London
The Effects of Intemperance	--	National Gallery, London
Saying Grace	--	National Gallery, London
The Twelfth Night Feast	--	Bridgeman Art Library, London
Grace Before Meat	--	Bridgeman Art Library, London
As the Old Sing, So the	--	Philadelphia Museum of Art, Philadelphia

Young Pipe			
The Satyr and the Peasant	--	Bredius Museum, The Hague	
Merry Company on a Terrace	--	The Metropolitan Museum of Art, New York	
The Vegetable Market	--	Private Collection, on loan to the Museum of Fine Arts, Boston	
A Village Fair	--	Frans Hals Museum, Haarlem	
GERARD TER BORCH 1617-1681			
The Family of the Stone Grinder	1653-1655	Gemaldegalerie, Staatliche Museen Preussischer Kulturbesitz, Berlin	
Woman Drinking Wine with a Sleeping Soldier	early 1660s	Sutton 1984:147	
Lady at Her Toilet	ca. 1660	The Detroit Institute of Arts, Detroit, Michigan	
Curiosity	ca. 1660	The Metropolitan Museum of Art, New York	
Woman Peeling Apples	ca. 1660	Kunsthistorisches Museum, Gemaldegalerie, Vienna	
Soldier Offering a Young Woman Coins	1662-1663	Musee du Louvre, Paris	
The Gallant Officer	ca. 1650	Pushkin Museum, Moscow	
Woman with Wineglass	--	Stadelsches Kunstinstitut Frankfurt am Main	
JACOB TOORENVLIET 1635/36-1719			
The Fish Seller	--	Barnes 1988:35	

WILLEM VAN AELST 1626/7-ca. 1683		
Still Life with Silver Jug	1657	Statens Museum for Kunst, Copenhagen
Still Life with Gold	1678	Segal 1988:250
<u>Bekerschroef</u>		
PIETTER VAN DEN BERGE ca.1648-1693		
The Large Meat Hall (drawing)	ca. 1690	Gemeentelijke Archiefdienst, Amsterdam
ABRAHAM VAN BEYEREN 1620/21-1690		
Still Life with Lobster and <u>Pronk Objects</u>	1653	Rijksdienst Beeldende Kunst, The Hague
Still Life with Ham	ca. 1660-65	Ashmolean Museum, Oxford
Still Life with a Silver	ca. 1660-65	The Cleveland Museum of Art, Cleveland
Wine Jar and a Reflected Portrait of the Artist		
Still Life with a Lobster and a Mouse	1667	Los Angeles County Museum of Art
Still Life	--	The Seattle Art Museum, Seattle
Still Life	--	The Toledo Museum of Art, Toledo, Ohio
Still Life with Crab and Porcelain Bowl	--	Rijksmuseum, Amsterdam
Still Life with Fruit and a Lobster	--	Musees Royaux des Beaux-Arts de Belgique, Brussels

QUIRIJN VAN BREKELIENKAM 1620-1668		
Woman Combing a Child's Hair	1648	Stedelijk Museum De Lakenhal, Leiden
Interior of A Tailor's Shop	1653	Worcester Art Museum, Worcester, Massachusetts
Man Spinning and Woman Scraping Carrots	1653-1654	Philadelphia Museum of Art, Philadelphia
Old Woman Scraping Carrots	--	New Orleans Museum of Art, New Orleans
The Pancake Baker	--	Frans Hals Museum, Haarlem
Sentimental Conversation	--	The Metropolitan Museum of Art
JAN VAN DE VELDE 1619/20-1662		
Still Life with Lemons and Oysters	1647	Rijksmuseum, Amsterdam
Still Life with Lemons, Oysters, and Capers	--	Rijksmuseum, Amsterdam
Still Life with Peaches	--	Frans Hals Museum
PIETER VAN DEN BOSCH 1613-1663		
Kitchen Interior with Woman Scouring Pans (also called Serving Maid with Pots and Pans)	--	New Orleans Museum of Art, New Orleans
GERBRAND VAN DEN EECKHOUP 1621-1674		
Party on a Terrace	1652	Worcester Art Museum, Worcester, Massachusetts
BARTHOLOMEUS VAN DER HEIST 1613-1670		
Schuttersmaaltijd in de St. Jorisdooelen	1648	Rijksmuseum, Amsterdam

JAN VAN DER HEYDEN 1637-1712 Keizersgracht with the Westerkerk	--	The Metropolitan Museum of Art, New York
FLORIS VAN DIJK 1575-1651 Still Life	1610	Segal 1988:230
Still Life	1613	Frans Hals Museum, Haarlem
Still Life	--	Rijksmuseum, Amsterdam
S. VAN DUYPEN working ca. 1669-1683 Woman Preparing Fish	--	K.D.C.
CAESAR VAN EVERDINGEN 1606-1678 Allegory of Winter	ca. 1650	Southampton Art Gallery, Southampton
EGBERT VAN HEMSKERCK 1634/5-1704 Peasant Meal	1653	Braudel 1981:195
FRANS VAN MIERIS 1635-1681 The Peasant Inn	1655-1657	Stedelijk Museum De Lakenhal, Leiden
The Oyster Meal	1661	Mauritshuis, The Hague
Inn Scene	1658	Mauritshuis, The Hague
WILLEM VAN MIERIS 1662-1747 The Trumpeter	--	Stedelijk Museum De Lakenhal, Leiden
The Drinker	--	Stedelijk Museum De Lakenhal, Leiden

MICHIËL VAN MUSSCHER	1645-1705	1668	Amsterdams Historisch Museum, Amsterdam
The Harlem Dike with			
the Harlem Gate (also called The Pig on the Ladder)			
ADRIAEN VAN NIEULANDT	1587-1658		Herzog Anton Ulrich-Museum, Braunschweig
Kitchen Scene (An Allegory	1616		
of the Temptations of the Flesh)			
PIETTER VAN NOORT	working ca. 1648	--	Stedelijk Museum De Lakenhal, Leiden
Fish Still Life			
REYNIER VAN OOSTERZAEN	working ca. last half of the 17th century	--	Bredius Museum, The Hague
Peasant's In An Inn			
ADRIAEN VAN OSTADE	1610-1685	1634	Sarah Campbell Blaffer Foundation, Houston
Drinking Figures			
and Crying Children			
Prayer Before the Meal	1653		Sutton 1984:308
(engraving)			
A Peasant Interior	1661		The Metropolitan Museum of Art, New York
Interior of a Peasant's Cottage	1668		Collections of Her Majesty Queen Elizabeth II
The Fishwife	1672		Rijksmuseum, Amsterdam
The Cottage Dooryard	1673		National Gallery of Art, Washington
A Company of Peasants	--		Rijksmuseum, Amsterdam
The Interior of a	--		Rijksmuseum, Amsterdam
Farmhouse with Skaters			

Peasants in an Inn	--	Mauritshuis, The Hague
The Contented Drinker	--	Frans Hals Museum, Haarlem
Woman Feeding a Child #1	--	K.D.C.
Woman Feeding a Child #2	--	K.D.C.
Interior with Drinking and Smoking Peasants	--	Pierpont Morgan Library, New York
A Meal of Gruel (engraving)	--	Braudel 1981:138
REMBRANDT VAN RIJN 1606-1669		
Pancake Woman and Boy (engraving)	1635	Sutton 1984:163
Child with Dead Peacocks	ca. 1635-40	Rijksmuseum, Amsterdam
Still Life with a Dead Bittern	1637	Sullivan 1984:25
Self-Portrait with a Dead Bittern	1639	Gemaldgalerie Alte Meister, Staatliche Kunstsammlungen, Dresden
The Holy Family	1640	The Hermitage, Leningrad
PIETER VAN ROESTRAEEN 1632-1700		
Woman Frying Pancakes	1670s	Bredius Museum, The Hague
Amorous Overtures	--	Frans Hals Museum, Haarlem
FLORIS VAN SCHOOTEN 1585/1590-1656		
Kitchen Scene	ca. 1615-1620	Sullivan 1984:14

JAN VAN STREEK 1632-1687	--	Stedelijk Museum De Lakenhal, Leiden
Still Life with Crab, Nautilus Shell and Porcelain Jar		
CONSTANTIJN VERHOEY working 1660s	1660s	Barnes 1988:26
Portrait of Cornelius Abrahamsz. Graswinckle		
JAN VERMEER 1632-1675		
A Maidervant Pouring Milk (The Kitchenmaid)	ca. 1660	Rijksmuseum, Amsterdam
Girl with Wineglass	1658-61	Gemaldegalerie, Staatliche Museen Preussischer Kulturbesitz, Berlin
Woman and Two Men	ca. 1662	Herzog Anton Ulrich-Museum, Braunschweig
Lady at the Virginals with a Gentleman	ca. 1662-65	Collections of Her Majesty Queen Elizabeth II
JAN VICTORS 1619/20-ca.1676		
The Slaughtered Ox	1647	Haak 1984
Butcher's Shop	1651	York City Art Gallery, York
The Girls Dining Hall in the Reformed Parish Orphanage, Amsterdam	--	Amsterdams Historisch Museum, Amsterdam
ELIAS VONCK ca. 1600/10-1652		
Kitchen Still Life	1640	Muzeum Narodowe, Warsaw
Still Life of Vegetables and Game	1640	Statens Museum for Kunst, Copenhagen

JACOBUS VREL active ca. 1654-1662			ca. 1654-62	Sutton 1984:353
The Convalescent				
Street Scene		ca. 1654-62		Wadsworth Athenaeum, Hartford, Connecticut
JAN BAPTIST WEENIX 1621-1660/1				
Still Life of a Dead Hare and Birds		1648		Sullivan 1984:31
Still Life of Dead Birds		1649		Wadsworth Athenaeum, Hartford
JAN WEENIX 1642-1719				
Still Life with a Dead Hare		1682/3		Staatliche Kunsthalle, Karlsruhe
Dead Game		1691		Wallace Collection, London
Game and Fruit		1704		Mauritshuis, The Hague
EMANUEL DE WITTE 1616/18-1692				
The New Fishmarket, Amsterdam (Portrait of Adriana van Heusden and Her Daughter at the Fishmarket in Amsterdam)		ca. 1660		K.D.C.
Kitchen Interior		1660s		Museum of Fine Arts, Boston
The Fishmarket		1672		Museum Boymans-van Beuningen, Rotterdam
The Fishmarket, Amsterdam		ca. 1678		Wadsworth Athenaeum, Hartford

APPENDIX C

EXCERPT FROM A DESCRIPTION OF THE NEW NETHERLANDS BY ADRIAEN
VAN DER DONCK (1968:54-56)

All the waters of the New Netherlands are rich with fishes. Sturgeons are plenty in the rivers at their proper season; but these fish are not esteemed, and when large are not eaten. No person takes the trouble to salt or souse them for profit; and the roes from which the caviar is prepared are cast away. Salmon are plenty in some rivers, and the striped bass are plenty in all the rivers and bays of the sea. The bass is a fish which in its form differs but little from the salmon. The inside of the latter is red, and of the other white. The bass are also a fine fish, and their heads are delicious food. The drums are a tolerably good fish, somewhat like the cod in form but not so stout. I have heard it said that the drums were named Thirteens, when the Christians first began fishing in the New Netherlands. Then everyone was desirous to see the fishes which were caught, for the purposes of discovering whether the fish were known to them, and of they did not know the fish, then they gave it a name. First in the fishing season they caught many shad, which they named Elft [eleven]. Later they caught the striped bass, which they named Twalft [twelve]. Later still they caught the drums, which they named Dertienen [thirteen]. For those fishes succeeded each other in their seasons, and the same are still known by the names which were thus derived. There are also carp, snook, forreels, pike, trout, suckers, thickheads, flounders, eels, palings, brickens, and lampreys. Some of the latter are as large as a man's leg, and above an eel in length. There are also sun-fish tasted like the perch, having small shining scales, with brilliant spots, from which they have derived the name of sun-fish. In the winter season, the creeks and backwaters abound with a small kind

of fish which comes from the sea, about the size of a smelt. Some call them little mullets. Those fishes are so tame that many are caught with the hand; and as those come with the frost, we call them frost-fish. Outside at sea, and in some of the bays of the East river, the codfish are very plenty; and if we would practice our art and experience in fishing, we could take ship loads of codfish, for it can be easily accomplished. There are also shellfish, week-fish, herrings, mackerel, roach, halibut, scoll, and sheeps-heads. The latter are formed like the sun-fish, but much heavier, with cross stripes, being about the weight of the largest carps. They have teeth in the fore part of the mouth like a sheep, but are not voracious, and are an excellent fish. There is another species of fish, called black-fish, which are held in high estimation by the Christians. It is as brown as a seek, formed like the carp, but not so coarse in its scales. When this kind of fish, which are plenty, is served upon the table, it goes before all others, for every person prefers it. There are also porpoises, herring-hogs, pot-heads or sharks, turtles, etc., and whales, of which there are none caught, but if preparations were made for the purpose it might be easily effected; but our colonists have not advanced far enough to pursue whaling. A lost bird, however, is frequently cast and stranded, which is cut up. Lobsters are plenty in many places. Some of these are very large, being from five to six feet in length; others again are from a foot to a foot and a half long, which are best for the table. There are also crabs, like those of the Netherlands, some of which are altogether soft. Those the people call weak crabs, and they make excellent bait for hook fishing. There are also sea-cocks (horned crabs), sea-colts, sea-concks; and periwinkles are very plenty, which in some seasons are cast ashore by the sea in very great numbers. From these the Indians make wampum. Oysters are very plenty in many places. Some of these are like the

Colchester oysters, and are fit to be eaten raw; others are very large, wherein pearls are frequently found, but as they are of a brownish colour, they are not valuable. The large oysters are proper for roasting and stewing. Each of these will fill a spoon, and make a good bite. I have seen many in the shell a foot long, and broad in proportion. The price for oysters is usually from eight to ten stuivers a hundred. Mussels of different kinds are plenty; the St. Jacobs and mother of pearl shells, with Alis or stone crutches. There are also several other kinds of shellfish, for which there are no names. There are also shrimps and tortoises in the waters and on the land. Some persons prepare delicious dishes from the water terrapin, which is luscious food. There are also sea-spiders, and various other products of the ocean, which are unknown in Holland, and are of little consideration, as they contribute little to the wants of human society.

APPENDIX D AMSTERDAM CERAMICS

I studied the ceramics from the Taanstraat and Waterlooplein excavations in Amsterdam in 1987 at the Archaeological Research Division of the Department of Public Works, Amsterdam. At this time, Ab Lagerweij, Assistant-Archaeologist and restoration expert of the Archaeological Research Division, had performed a preliminary analysis of the assemblages. Identification of the ceramics were by Drs. Jan Baart, City Archaeologist of Amsterdam and Senior-Archaeologist of the Archaeological Research Division and Mr. Lagerweij.

The Waterlooplein Site excavations were undertaken by the Archaeological Research Division in 1981 after the area's seventeenth century buildings were demolished and before construction of the new opera house. The Taan excavations were also undertaken by the Archaeological Research Division of the City of Amsterdam in 1984 after the area's seventeenth century buildings were demolished and before construction of new houses and apartments. A major focus of both excavations was the undisturbed cess pits filled during the seventeenth century. These cess pits contained, among other artifacts and faunal material, a large number of ceramic vessels. Most of the ceramics were more than fifty percent complete and many were almost totally reconstructible.

The occupants of the Waterlooplein Site included households of varying means. The largest houses were on the portion of the block that faced the Amstel River. Middling houses faced the canals on two sides of the block, and the smallest, poorest houses were along the side of the block which faced another street. The inhabitants of the seventeenth century houses at the Taan Site were people of average means whose occupations were connected with ship building and other harbor activities.

The site reports are not yet obtainable, but information and access to the artifacts was kindly made available by Mr. Baart. The following descriptions are my own and I am totally responsible for any errors or misinterpretations. Due to time constraints, I was only able to look at parts of each assemblage and the following descriptions should be considered to be examples of the wares found in these deposits.

TAAN CESS PIT 1 1625-1650
[find no. Taan-2; location Taanstraat (Realeneiland)]

MAIOLICA

The majority of the maiolica vessels are food service and consumption forms. Pastes include rather coarse red bodies, buff bodies with red inclusions, and fairly fine buff bodies. The majority of the decorations are mediterranean/Iberian style and geometric designs, but a few are decorated with chinoiserie designs. The following are examples of the assemblage.

1. Charger with large, flat foot ring; rather coarse red body; face has a white glaze with blue and yellow mediterranean/Iberian style decoration; lead glaze on back has a greenish tint.
2. Charger with large, flat foot ring; buff body with red inclusions; white glaze with blue dash rim and blue geometric design on face.
3. Charger with large, flat foot ring; buff body; glaze on both surfaces is thin; blue dash rim; polychrome decoration of bird with fruit (apple or pomegranate ?) on face.

4. Dish or charger with thin glaze on both surfaces; white glaze with kabelrand design on the rim and polychrome geometric design on face.

5. Haarlem-made dish or plate; buff body; dark blue glaze with yellow and white bird on interior.

FAIENCE

There are fewer faience, compared to maiolica, vessels in this assemblage than in the other assemblages. Most of the faience vessels have fine white tin-enamel glaze and are decorated with chinoiserie designs in various shades of blue. Faience vessels were used for food service and consumption. The following vessels comprise the assemblage.

1. Small dish; buff body; white glaze with blue decoration; chinoiserie rim decoration with central design of a Dutch (?) ship.

2. Cup; buff body; white glaze; exterior decoration is the "bird on the rock" design outlined in purple and filled-in with blue.

3. Dish; buff body; unidentifiable chinoiserie decoration in blue on white glaze.

4. Plate or dish; Wan li design in blue on white glaze; possibly Haarlem-made.

STONEWARE

All of the stonewares are salt-glazed and made in Germany

(the Rhineland). The majority are bottles with mottled brown slip. Some have been identified by Mr. Lagerweij as products of the town of Frechen.

1. Frechen salt-glazed bottle; grey body with lightly mottled brown exterior; light grey interior.

2. Frechen salt-glazed bottle; possibly a bellarmine; dark grey fairly coarse body; heavily mottled brown exterior; pale tan interior; base very tapered.

3. Frechen salt-glazed bottle; dark grey body with heavily mottled brown exterior; light grey interior.

4. Frechen salt-glazed bottle; thin, fine, grey body with some medium-brown mottling; light orange interior.

5. Westerwald salt-glazed bottle or mug; grey body with light salt-glazing; stamped and sprigged decoration.

COARSE EARTHENWARES - RED BODIED

These vessels were most probably made by potters working in Amsterdam or in nearby areas of the province of North Holland. The coarse red bodies are most likely made of local clays. Many of the bajkes have trailed slip decoration, and some of the grapen and bowls have light slip covering part of the interior. The following are representative of the assemblage.

1., 2., and 3. Grapen with two ear-handles; exteriors and top 1/2 to 2/3s of interiors have light brown lead glaze; bottom of interiors have green-tinted lead glaze over buff slip; "17th century style" rim; three feet.

4. Grape or possibly a bowl with the same characteristics as 1 through 3 but with some evidence for a pulled foot and no handles on the preserved portions.

5. Vergiet (deep colander) with a grey/brown body and poorly vitrified glaze.

6 and 7. Testjes or possibly small grapen with three feet and bodies and glaze similar to 5.

8, 9 and 10. Bakjes with trailed slip decoration. The vessels are not reconstructible and the slip decoration can not be identified, but it appears to be geometric designs, swirls, or possibly numbers.

11. Bord or possibly shallow bowl with a shape similar to maiolica chargers. This vessel has trailed slip decoration in a pattern that appears to be less intricate than that on the bakjes.

12 and 13. Small, undecorated ointment pots (zalfpots). They are poorly potted and are glazed only on the interior. It is possible that such pots were used for dispensing drugs and were discarded after one or a few uses.

COARSE EARTHENWARES - BUFF/WHITE BODIED

Although these vessels were probably locally made, the clays were imported from other areas of the Low Countries, Germany, or possibly England, since there are no near by light-firing clays

(Jan Baart 1987, personal communication). The forms are similar to the red bodied vessels, and most are hollowwares used for food preparation and consumption. Some of the

buff/white bodied vessels in this assemblage had dark yellow lead glaze on both interiors and exteriors, but some of the vessels had green glaze on the exterior and the yellow glaze on the interior, and some were covered entirely in green glaze. None of the vessels with the green and yellow glazes were reconstructed, but it was apparent from the residual sherds that these vessels included grapen, dishes, and possibly bowls and bakjes.

1. Small yellow glazed dish or bordje with a bowl/colander style rim and a solid foot.

2 and 3. Small yellow glazed cups or bakje with one ear handle.

4. Yellow glazed bakje or testje with small solid foot and one, or possibly two, loop handles.

5. Shallow yellow glazed dish or plate whose shape resembles maiolica chargers. This particular vessel has many use-wear marks.

6. Yellow glazed vessel that is relatively incomplete, (approximately 25%), but that is probably a grape. Handles and foot are unknown and exterior has much charring.

7, 8, and 9. Steelpannen with green glaze on interior and over exterior rim. These vessels have rod handles, three feet and a pushed-out spout perpendicular to the handle and all have charring on the flat bases.

10 and 11. Flat colanders (druipschalen) with green glaze covering all surfaces. These vessels probably had two loop handles.

12. Small grapen with green glaze on both surfaces. The body shows wheel-turn ridges.

13. Fire guard (vuurklok) (half-round shape) with green glaze and sprigged decoration of cherub's heads and a cartouche with a leaping deer. Fire guards were placed over fires against the back wall of the hearth to protect the coals at night. They were made in both red and buff/white earthenwares and are often decorated with trailed slip and sprigged decorations but are least commonly found with green glaze.

IMPORTED COARSE EARTHENWARES

Red and buff/white bodied earthenwares decorated with various slips were imported from Germany. The shapes of the vessels are similar to those made in the Netherlands, but there are differences in size and handle and foot shape.

1. Coppegrave vessel from Northern Germany with a white body and trailed slip decoration with yellow lead glaze. The slip is applied in wavy and straight lines and some copper has added to the glaze.

TAAN CESS PIT 1 1650-1675 DEPOSITS
[find no. Taan-1; location Taanstraat (Realeneiland)]

The ceramics in this deposit were similar to those from the lower deposit but the assemblage had fewer vessels (probably due to depositional circumstances rather than to a change in ceramic

usage) and, according to Mr. Lagerweij, there was an unusually high percentage of green glazed buff/white bodied vessels. The vessels in general were also more fragmentary and less reconstructible than those in the earlier deposit. Only the coarse earthenwares were available for examination.

COARSE EARTHENWARES - RED BODIED

All of the following have trailed slip decoration. (The plain redwares were not reconstructed, but the forms that could be determined from the sherds included grapen, schalen, and various hollowwares. Many of the plain redware sherds had a green/ginger glaze that showed the presence of copper oxides in the kiln.)

1 through 4. Bakjes or papkommen with one horizontal loop handle at the base of the high collar and solid, flat bases. All have swirling trailed slip decoration depicting, probably, birds, lines and dots.

2. Small grape with the date 166? (7 or 9?) on the exterior in slip.

3 and 4. Very small grapen which are probably toys.

5. The top half of a bank made in a roughly tear drop shape with a small hole at the top.

6 through 8. Jugs with narrow necks and mouths. There are individual variations in the height of the neck and in the slip decorations.

COARSE EARTHENWARES - BUFF/WHITE BODIED

All of the following vessels have green glaze on both exteriors and interiors and are representative of the vessels in this assemblage.

1 and 2. Chamber pots with solid bases. One is glazed entirely on both surfaces but the other has an unglazed bottom half of the exterior.

3. Grape with "17th century" rim profile.

4 through 7. Bakjes or papkommen of various sizes. They were not reconstructed and number and form of the handles is not known.

8. Druipschal, which was also unreconstructed and the handles are unknown.

9. Melkkan with a ridged (wheel-turn rings) body.

10. Roompot with nozzle spout and one or two loop handles.

11. Large kopje or bakje with a solid base.

The following vessels have green glaze on the exteriors and yellow glaze on the interiors:

12 through 15. Kopjes of various sizes in several shades of green.

16 and 17. Bordjes for which the presence or absence of handles could not be determined.

18. Melkkan.

19. Bak or large grape with rouletted or coggled bands on the exterior.

20. Small chamber pot with one ear handle.

21. Grape or steelpan represented by one pootje (foot).

22. Unreconstructed vessel with yellow glaze with brown splotches; possibly a small grape with a thin white body.

WATERLOOPLEIN CESS PIT 52 1675-1700
[find no. Wlo-199; location Zwanenburgerstraat 21]

This assemblage differs from those in Cess Pit 1 at the Taan Site in both the time period represented and the socio-economic status of the household that deposited these ceramics. The contents of Cess Pit 1 were probably deposited by families of moderate incomes, but the ceramics in Cess Pit 52 came from a more well-to-do middle class family, according to Drs. Baart. Cess Pit 52 was a large domed structure associated with one of the largest houses on the block, while Cess Pit 1 was associated with one of the middling houses. Differences among the assemblages could therefore be due to both temporal and socio-economic factors.

FAIENCE

By this time period, maiolicas had been largely replaced by faience decorated in chinoiserie style or with simple European style floral designs, landscapes, and figures. Plain white vessels also were manufactured during this time period. Faience is not a suitable medium for food preparation or storage, and faience vessels were used for food service and as objects to be displayed on shelves or in open cupboards. The faience vessels in this assemblage consist mainly of plates and bowls in various sizes, but there are also some cups and matching saucers. Most have blue decoration on the white glaze, but some are unpainted. The quality of the glaze is high and the designs are usually well-painted.

1 through 15. Plates with chinoiserie floral, bird on the

rock, and Wan li designs.

16 and 17. Chargers or platters with chinoiserie floral decoration.

18. Shallow bowl with everted rim (possibly a schoteltje) with European-style floral decoration.

19 through 30. Small bowls with chinoiserie floral decoration.

31 through 36. Schoteltjes with chinoiserie floral decoration.

37. Very finely painted schoteltjes with a Wan li design.

38. Cup which is slightly octagonal in shape with a rather crudely painted landscape design.

39. Deep bowl with slightly octagonal shape and alternating panels of a man with a pagoda and fishing scenes.

The following are undecorated white faience:

40. Plain white papkom with ornate handles copied from silver vessels in this form.

41. Papkom with loop handles.

42. Plate.

43. Medium-sized schaal.

44. Chamber pot.

MAIOLICA

Although maiolica had been largely supplanted by faience by this time, it was still made by some potters. The Maiolica vessels in this assemblage included plates and chargers and possibly dishes.

1. Charger with large scale chinoiserie floral/landscape decoration.
2. Charger with polychrome (purple and yellow) floral decoration.

COARSE EARTHENWARES - RED BODIED

In general, the forms are the same as in the Cess Pit 1 assemblages, but they have slightly thinner bodies and fewer obvious wheel-turn rings. The over-all colors are less red/brown and more red/orange. There are relatively fewer solid bases and tripodal feet and more foot rings formed with an added roll of clay attached to the base. More of the grapen and schalen have green glaze over white slip on the interiors, and grapen are larger sized than in the earlier contexts. This assemblage also includes a number of redware lids, a form not found in the earlier contexts. According to Mr. Baart, the majority of these redwares were used for food preparation in the kitchen and were not for table use. Well-to-do families would have used faience, porcelain, and pewter for food service and consumption. The following are representative of the assemblage.

- 1 through 3. Small steelpannen with tripodal feet and rounded bases and pulled handles. One has a bright red glaze, one is yellow/brown with a slight green tint, and one

has a yellow/green/brown glaze.

4 and 5. Melkkannen with wide mouths.

6 and 7. Large grapen or kookpotten.

There were also schalen in both flat and deep forms - i.e. both platter and bowl shapes.

ORIENTAL EXPORT PORCELAIN

This assemblage was also distinguished from the earlier ones by the presence of chinese porcelain. The porcelains include tea (or wine) cups, saucers, and possibly a vase. Not all of the vessels were studied, but, based on the sherds, there were approximately one dozen porcelain vessels in the assemblage.

APPENDIX E SILVER AND KASTEN

Silver and furniture are classes of material culture with high symbolic values (see Chapter 8). Both are represented by imported and locally-made objects and the imported pieces frequently served as the models for local craftsmen. Craftsmen in New York City during the late seventeenth and early eighteenth centuries included Dutch-trained, English-trained, and native-born individuals (Goodfriend 1975:146-148).

This study has been primarily concerned with everyday foods and artifacts but foodways also include the special foods and drinks that are served on ceremonial or ritual occasions. Ceremonies and rituals marked by food consumption usually require specialized artifacts that are different in appearance from those used for everyday eating and drinking. As noted in Chapter 4, elaborate gold and silver drinking vessels were portrayed in sumptuous still lifes and were part of the communal dining rituals of fraternal organizations, guilds, and municipal governments in the Netherlands (Schama 1987:179ff.; Segal 1988:69-70). Seventeenth century Dutch silver- and goldsmiths were highly skilled artists, organized into their own guild, who were patronized by wealthy individuals, the court, other guilds, and municipal governments (Den Blaauwen 1979:xvi-xviii). These groups commissioned silver and gold objects as a means of banking their monetary resources in a way that "displayed, just as clearly as a bag of money, the financial strength of their possessor" (Den Blaauwen 1979:xxix).

In New Netherland/New York there were no royal courts or guilds and, given the colonial situation, the municipal government had no spare money. Nevertheless there were some wealthy individuals who chose to put their portable assets into silver objects and at least fourteen silversmiths worked in New York City during the seventeenth century

(Naeve 1989:41). An article by Milo M. Naeve, a museum curator, about one such object (a covered cup) made in New York City between 1698 and 1720, probably for a member of the Van Cortlandt family, is informative. This cup, and at least three others, were made by New York silversmiths of Dutch descent for families of Dutch descent, circa 1675-1720. However, the style of these cups with covers is English, circa 1670-1690 (Naeve 1989:50), and their function, the serving of sillabub or posset, is also peculiarly English (as noted in Chapter 7), although these cups are smaller (circa 5-6 inches diameter) than the posset pot described in Chapter 7 and were probably designed for individual not communal consumption. Naeve speculated that the cups were possibly all modeled from an English-made prototype in the possession of either the Van Cortlandt or Philipse families. Both families were among the politically-active and wealthy elite. Naeve observed that

Circumstantial evidence reveals that style in silver was a significant issue in the late seventeenth and early eighteenth centuries for New Yorkers who were not English. Some ordered silver vessels in the Dutch tradition from the craftsmen responsible for the four cups in the English style ... but no silver in the Dutch style is known to the author in the same families as those associated with the four cups in the English style... style in their silver documents alliance with the politically dominant English. Prosperous but less prominent Dutch remained faithful to their ancestral culture and continued the Dutch tradition in silver (Naeve 1989:52).

A problem with this statement is that Naeve did not specify how he defined some families as "prosperous but less prominent." Another problem -- if these artifacts are to be considered in a study of foodways -- is that he did not establish a definite link between the function of these particular cups and the English custom of drinking posset/sillabub: it is possible that they served a different food-related function in New York or were intended

exclusively as objects of display and had no part in even ritual food consumption. Nonetheless, the possession by some members of the inter-related Van Cortlandt, Philipse, Bayard, Stuyvesant, and Livingston families of expensive articles in a distinctive English style, intended partly or completely for display, supports Goodfriend's assertion that Anglicization occurred first among the city's mercantile elite who had to interact successfully with the English if they wanted to continue to retain some political power (Goodfriend 1975:264).

It would be interesting to try to trace ownership of additional pieces of silver in both the Dutch and English styles in New York City families to see if there is actually a correlation between political allegiance and style of silver. The investigation would be both facilitated and complicated by the longevity of silver. A number of silver pieces are preserved in museums (especially the New-York Historical Society, the Museum of the City of New York, and The Metropolitan Museum of Art), but their original owners are often not known or only known through family traditions. Since these pieces were almost all made on commission, the original owners would have decided on their style and the political affiliations of these purchasers would be the pertinent question.

Maria Van Cortlandt, the widow of Jeremias van Rensselaer and manager of Rensselaerwyck, sent her son Kiliaen to Boston, rather than Amsterdam or New York City, to be trained as a silversmith (Ward 1984:142), even though her father and brother were in New York and her husband's brothers in Amsterdam. Presumably a silversmith could work in different styles once he had acquired an adequate knowledge of his craft, but his mother's (or uncle's) choice of Boston for Kiliaen Van Rensselaer's grandson and namesake suggests that the family thought English training would be beneficial to his career.

Another interesting piece of material culture is the kast¹. A kast is a

large, freestanding wooden cupboard or wardrobe, generally with two doors. Inside are two or three widely spaced shelves; the more elaborate pieces have a drawer in the base section (Kenny et al. 1991:1).

Kasten are a distinctively Dutch item of furniture.

Designed to hold household linens, they began to be made in the Netherlands in the late sixteenth century in a two-piece, four-door shape. After 1650, a one-piece style with two massive doors became the most common. Kasten are depicted in household interiors in genre paintings, as in De Hooch's "Woman Drinking with Soldiers" and "Interior with Figures" and a 1668 Steen "Dissolute Household." They generally have ceramics (porcelains or faience), glass, silver, or small sculptures displayed atop their massive cornices.

Kasten were imported from the Netherlands but they were also made in the New Netherland area beginning sometime in the last half of the seventeenth century (Kenny et al. 1991:14-15). The first locally-made kasten were in the simpler four-door style but more elaborate two-door pieces were made starting at the end of the century. They were made in the areas of the former New Netherlands until the first decades of the nineteenth century. Several regional styles developed during the years of their production in America: New York City and Brooklyn; Queens County; and the west side of the Hudson Valley into Bergen County, New Jersey (Kenny et al. 1991:16).

Kenny et al. (1991:4) state that "For those inhabitants of New York and New Jersey who valued their Dutch heritage and could afford the expense, the kast was an important material possession." They further state that

¹. Following the usage in Kenny et al. 1991, the word "kast" is not underlined or italicized even though its origin is Dutch.

From at least the time of the English takeover of 1664 on into the early eighteenth century, the city's wealthy Dutch merchants and political elite -- the people who undoubtedly exerted the greatest influence on the taste of the middle class -- were importing elaborately carved and veneered Baroque kasten from the Netherlands for use in their homes...It is not unlikely that by the 1690s middle-class burgers of modest means had begun asking local New York City joiners to produce kasten with some pretensions to the latest Dutch baroque style (Kenny et al. 1991:16).

This statement is interesting, even though it seems to assume that all Dutch-Americans shared the same material culture, differentiated only by wealth and thus quality and origin of artifacts. It ignores the probable material cultural correlates of anglicization and it contradicts to some extent Naeve's assertions about ownership of English-style silver. Both Kenny and Naeve are concerned with the wealthy political elite, but Kenny notes retention of a very Dutch piece of furniture and Naeve notes possession of English-style ornaments.

An explanation of the apparent disparity is that Kenny is mistaken in his assumption that the majority of Dutch-Americans shared the same material culture: Kenny speaks of the Dutch mercantile elite as a group and it is possible that closer examination would show that not all families in this category possessed kasten. More investigation of wills, inventories, and artifacts in museum and private collections needs to be done with several questions in mind. The basic question is whether the same families did own silver in the English style as well as Dutch- or locally-made kasten. In addition, what other silver vessel forms and styles did the families who owned the covered cups possess? Did any New York families own Dutch- or locally-made silver in distinctively Dutch forms such as brandewijnskom (brandy bowls), bekerschroef (glass holders), hansje in de kelders (tazzas [tall footed dishes] with a central figure), or knottekistjen (wedding caskets)

(Den Blaauwen 1979:370-373)? Did individuals who had become batavianized (Goodfriend 1975:264) purchase silver made in a Dutch style?

If both Kenny and Naeve are correct in their conclusions, some Dutch-American elite families had artifacts that symbolized both their Dutch heritage and their allegiance to the English. A simple interpretation could be that the silver was for public display and the kasten for private use, but this is not accurate because, based on the evidence of inventories, kasten were usually kept in the principal room, which was also the bedroom of the head of the household (Kenny et.al. 1991:9,16).

It might be possible to separate kasten as objects that fell within the domain of the women of the household from silver as objects that would have been more within the masculine sphere. If the association of kasten with women's sphere and silver with men's is valid, it suggests that the material culture of the Dutch-American elite was anglicized to a greater or lesser degree depending upon the gender affiliation of artifacts.

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