THE CHARLES COTTER COLLECTION:
A STUDY OF THE CERAMIC AND FAUNAL REMAINS

A THESIS
by
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ABSTRACT

The Charles Cotter Collection:
A Study of the Ceramic and Faunal Remains (May 1988)

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Between 1509-1534 Sevilla la Nueva was the major port and capital of the Spanish colony of Jamaica. Lacking rich mineral resources, the island played an important role by supplying foodstuffs and animals to the Spanish conquistadors in the early colonizing ventures into Central America. Abandoned in 1534, and only rediscovered in 1937, Sevilla la Nueva was excavated by Capt. Charles Cotter between 1953-1968. The resultant collection of artifactual material consisted of Spanish and Arawak ceramics, masonry, beads, metal artifacts and faunal material.

The ceramic and faunal remains associated with the three major features demonstrated the function of each structure. These remains also illustrated the foodways of the early colonists and their adaptation to their new environment. Finally they indicated the level of foreign trade to this early colony.
ACKNOWLEDGEMENTS

During the course of my research, I have received help, advice and encouragement from many colleagues and friends. Firstly, I would like to thank the Directors of the Jamaica National Trust Commission, the Institute of Jamaica, and the Government of Jamaica for their kind permission in allowing me to assemble and study the artifacts excavated from Sevilla la Nueva by Capt. C. S. Cotter. In particular, I would like to acknowledge my sincere appreciation to Mr. Anthony Aarons, Director of the Old Naval Hospital Museum, for his enthusiastic encouragement throughout the project and his assistance in finding and assembling this enormous collection of material that was scattered through several government repositories and private homes across Jamaica. Mr. St.Clair Risden, Permanent Secretary of the Ministry of Mining and Energy, must also receive my sincere thanks for his assistance in arranging transportation and funding for part of this study. For their time and artistic ability, I would like to thank Miss Margaret Morden, Tyron Lindsey, and Fitzroy Taylor. Many thanks also to Father Francis Osborne, S.J., Mrs Blanche Blackwell, Mr Percy White, and Miss Julia Hairs for the time spent they spent with me reconstructing Capt. Cotter's excavations, and to Mr. Jim Lee, the President of the Archaeological Society of Jamaica for his hospitality and his assistance in my research.
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CHAPTER I
INTRODUCTION

In 1937, while riding across the fields of the Seville Estate near St. Ann's Bay, Jamaica (Figure 1), Mr. Geraint Casserly, the estate's manager, discovered an old well when his horse literally stumbled into it. Mr. Casserly notified, Mr. Charles S. Cotter, a friend and amateur archaeologist whom he knew to have a deep interest in locating the ruins of Sevilla la Nueva, the first Spanish settlement in Jamaica. Mr. Casserly and Mr. Cotter persuaded the Trustee of the Estate to fund a small excavation within the area of the well. The two men, joined by Mr. William B. Goodwin, a visiting historian, subsequently found several large limestone blocks that were finely carved in relief. These included two coats of arms, carved door jambs and sections of carved pilasters all in the style of the Renaissance grotesque (Cotter 1948: 231). These stones proved to be within the foundation walls of a large brick and stone structure that included an interior well.

From his knowledge of historical documents, principally the 1707 treatise of Sir Hans Sloane, Cotter knew that the town of Sevilla la Nueva lay under the canes of the estate of

This thesis utilizes Historical Archaeology as a model for style and format.
Captain Richard Hemmings which had subsequently become known as the Seville Estate. Sloane mentions a fort, governor's house and a partially complete stone church as being the main buildings and that Hemmings found miles of stone pavements and many wells in his fields. Sloane also noted that on the ground near the Governor's house he saw two Coats of Arms: a Ducal one and that of a Count that he supposed belonged to the Columbus family and the Proprietor of the island (Sloane 1707: lxvi). The two coats of arms and the discovery of two coins from the reign of King Ferdinand of Spain positively identified this structure as part of the first Spanish settlement in Jamaica, Sevilla la Nueva.

Professional commitments as an estate manager and member of the Jamaica Home Guard made it impossible for Mr. Cotter to pursue his interest in the Spanish townsite in the years following its rediscovery. However, Mr. Casserly and later Mrs. Blanche Blackwell did several test pits in the fields and uncovered evidence of other structures.

Convinced by several visiting archaeologists that he was the best available archaeological practitioner, Charles Cotter resumed his investigation of the townsite of Sevilla la Nueva in 1953. Working an average of 17 days per year between 1953 and 1968, Cotter discovered four major features and traces of others (Cotter 1970: 17). In the course of these excavations he uncovered a wealth of archaeological material, which upon his death in 1973, at age 91, he left as
a legacy to the people of Jamaica.

Unfortunately, neither his notes, nor his artifacts were ever studied in detail in his lifetime. A preliminary examination of the material revealed that a study of the collection in its entirety would be a vast undertaking. It consisted of thousands of ceramic sherds, faunal material, bricks, carved stones, Indian ceramics, glass beads, metal artifacts and miscellaneous. English ceramics and glass dating to the 18-19th centuries. Furthermore, the collection was scattered between several government repositories and private homes, it had never been properly sorted, numbered or cataloged.

Eight years after its receipt, the Jamaica National Trust Commission, the Institute of Jamaica and the Government of Jamaica granted permission to the author to study the ceramic and faunal elements of the Cotter Collection. After several months of work, all known elements of the Collection were amassed at the Old Naval Hospital Museum in Port Royal, Jamaica. Careful examination of Mr. Cotter's notes and correspondence revealed that with the exception of the glass beads, most of the material detailed by Cotter in his 1970 account of his excavation had been found (Cotter 1970: 22). Provenience notations were missing from some artifacts and full notations of Feature 3 and 4 are not included in the notes. However, Mr. P. White, Cotter's local field assistant, and Father Francis Osborne, a colleague, were able
to reconstruct some of the details of his work. Regardless, the existing foundations and descriptive data that can be derived from the collection is invaluable in reconstructing the lifeways of the original inhabitants.

Physical Description of Jamaica

Jamaica is the third largest of the four islands that comprise the Greater Antilles, the largest chain of islands in the West Indies. The island is 146 miles in length and ranges from 22 to 51 miles in width. Much of its 4207 square miles is mountainous, with over half the island more than 1000 feet above sea level. The main range is the Blue Mountains with Blue Mountain Peak being 7,402 feet. The coastal plains encircle the island and the mountains run east-west with the major rivers running north-south. There are over 120 rivers and streams on the island, but very few are navigable. Jamaica enjoys a tropical climate with major rainfalls in May and October. The eastern and northern coasts have an adequate water supply year round, but the southern savannas do suffer during the dry winter season. Over half the island’s surface is covered by white limestone, overlying yellow limestone. Below this the island is composed of granites, stratified shales, conglomerates, tufas and other igneous rocks. Although the upland areas have only a thin layer of soil, the alluvial plains that surround the island are covered by a deep rich loam. The north coast
of Jamaica borders directly upon the Cayman Trench and thus there is deep water very close to shore. A large shallow bank, rich in diverse types of marine life extends, south from the island for over 100 miles.

There are 2180 species of flowering plants and trees and 450 species of ferns that are indigenous to Jamaica (Howard 1950: 19). The island would have been almost completely forest covered in the early 16th century with only small agricultural clearings until the advent of European farming practices. There are over 200 species of birds in Jamaica, 25 of which are endemic to the island. The only land mammals native to the Greater Antilles are coneys (hutias) which are members of the rodent family and bats, of which there are 25 species known to the island. Turtles and manatees were the most common marine animals, but neither of these appear to have been important fauna for the early inhabitants (Lee, personal communication).

Prehistory of Jamaica

The time of the first migrations of native groups from South America to the Caribbean islands is as yet undetermined but it is generally thought to have been around 2000 B.C. The native peoples who inhabited the Lesser and Greater Antilles in 1492 spoke Cariban and Arawakan languages which were in widespread use by many tribes in eastern South America. The
Arawak groups that made up this movement probably entered the Caribbean comparatively late, about the time of Christ, reaching the Greater Antilles c. A.D. 250. Their material culture belonged to the final pre-Columbian age known as Late Prehistoric (Cruxent and Rouse 1969: 42). They made pottery, had stone and shell implements, cultivated plants and were skilled mariners.

Most of the Arawak village sites in Jamaica are located on the low lying hills that border the coastal plains. Almost all are located close to fresh water supply and land suitable for agriculture. Sites in Jamaica have been found as far inland as Moneague and in upland areas as high as Jack's Hill at 2000 feet (Black 1958: 12). Their patterns of occupation and their material culture most closely matches that of the Sub-Taino group found elsewhere in the Greater Antilles and in particular, Hispaniola (Howard 1956: 47).

The introduction of a number of important plants, most notably bitter cassava, a tuberous manioc that had to be grated to separate out its poisonous juices and leave it as an edible starch (Lee 1980: 2). Sweet potatoes, tubers, peanuts, yams, peppers and tobacco were also introduced to the islands by the Arawaks. Of these, tobacco was the only West Indian crop that the Europeans exploited on a widespread commercial basis over the next centuries (Faerron 1985: 2). Oviedo mentions that the Arawaks also had maize, but, the absence of grinding stones from pre-conquest sites suggests
that they only had a soft variety, unsuitable for grinding into corn flour (Parry and Sherlock 1971: 2). Protein in the Arawak diet was provided from wildlife, mostly birds, molluscs and fish as well well as conies, the only edible land mammal native to the islands. The Arawaks had dugout canoes and fished with nets, pots, lines and spears tipped with fish bones. Tools were made of polished stone or shell. The women were responsible for the production of all pottery: bowls, griddles and water jugs, additionally, they wove hammocks. The Arawaks were simple people, living peacefully on islands where they encountered neither threatening animals nor warlike tribes. Thus, they were totally unprepared for the onslaught of an advanced European culture bent on expansion and on exploitation of new lands. They dwindled before the impact of the aggressive Spanish colonizers and European diseases, to which they had no immunity. They could not adapt, and yet they had no place to retreat. Within less than 100 years they were extinct (Parry and Sherlock 1971: v).

History of Sevilla la Nueva 1509-1536

The Renaissance voyages of Discovery are among history's most significant events in terms of their effects on our modern world. They were undertaken by the Europeans at a time when their skills of seamanship, their vessels and their instruments of navigation had evolved to the point that they
could undertake voyages of long duration. The main objective for the rulers or financiers who backed these voyages was not discovery for its own sake, but the opening of oceanic routes to the fabled rich lands of the east: India, China and Japan. Discovery led to colonization and settlements and thus to overseas commitments that were to influence the rise and fall of nations in Europe for the next 500 years (Hale 1974: 11).

Christopher Columbus's first voyage west, across the Atlantic into an ocean known only through myths and fragmentary reports of islands, is perhaps the most momentous of all, not because of its length or daring, but because it led to the discovery of the Caribbean and the Americas (Hale 1974: 51).

The history of Jamaica and of Sevilla la Nueva in particular, is elaborately entwined with that of Christopher Columbus and his heirs. The island was discovered during his second voyage to the New World. Entering the present day St. Ann's Bay, which he named "Santa Gloria", on May 5, 1494, he declared that the island was the "fairest that eyes had beheld, mountainous and heavily populated" (Morison 1974: 126). The "Discoverer" returned to the bay in 1503 while on his fourth and last voyage; unable to make sufficient headway on the return passage to Hispaniola from Darien due to the waterlogged condition of his ships, he beached his two caravels at Santa Gloria. In palm-thatched huts atop their ships, Columbus and his crew endured provisioning problems,
hostile indians and a mutiny within their own company before being rescued twelve months later. Columbus returned to Spain in late 1504 and died some 18 months thereafter. Later, in a partial settlement of the lengthy legal battles that waged for almost thirty years between the "Discoverer's" family and the Spanish Crown, Jamaica was designated the property of the Columbus (Colon) family.

Soon after the death of his father, Diego Colon began to press the Spanish Crown for a restitution of his inherited rights: one tenth of the wealth from the lands discovered by his father and claim to the hereditary titles of Viceroy of the Indies and Admiral of the Ocean Seas. Although the crown did acknowledge his right to some of these claims, they were not promptly enforced. The death of Queen Isabella in 1504 and the short and troubled reign of Phillip and Juana made legal progress impossible until King Ferdinand was firmly established as regent in 1507. Although Diego Colon's claims for compensation far exceeded what the King wished to yield to the family, in 1508 the King did appoint Diego Colon to succeed Nicolas de Ovando as Governor of the Indies (Floyd 1973: 5). By this time however, the Crown had managed to curb the powers of this position to the extent that colonial policy and power was dictated from Spain (Sauer 1966: 178).

Diego Colon did manage to assert some power early in his Governorship, for in 1509 in an effort to forestall any further erosion of his family's claims in the New World, he
ordered Juan de Esquivel to occupy Jamaica before Nicuesa and Ojeda, operating with a royal grant, could exercise their option to use the island for food supplies and native slaves to support their colony on the Tierra Firma (Cundall and Pietersz 1919: 1). The Crown did not choose to contest Colon's appointment of Esquivel as his Lieutenant in Jamaica when it became aware of this development in 1511, partially because there was no immediate discovery of gold and, more probably, as it was already in litigation with the Columbus family and the Crown's claim to Jamaica was weak in light of the island's well documented discovery by Columbus in 1494 (Sauer 1966: 178; Wright 1921: 71).

Esquivel landed in 1509 with 80 citizens and their families and established Sevilla la Nueva at Santa Gloria, where Columbus had made his first landfall in Jamaica, and where he had been marooned for over a year on his final voyage of discovery (Cotter 1970: 15). It was known from Columbus's logs that the indians were numerous and cooperative and that there were abundant food resources on this part of the island (Floyd 1973: 109). In his report of 1511, Esquivel noted that "the conquest and settlement of Jamaica had cost little hardship and the lives of but four Christians, gold had not been discovered but there had been many conversions among the natives" (Wright 1921: 71).

Other reports on the tenure of Esquivel's governorship were not as favorable. Many reflect King Ferdinand's growing
impatience with Esquivel and his failure to find gold in Jamaica. The King urged Esquivel to put the Indians to work growing food to support the Spanish expeditions to Cuba and Castilla del Oro on the South American mainland, thus hastening the agricultural development of this colony (Wright 1921: 71). The demand for meat, yucea, maize, cacabi (cassava) bread and hammocks which the Spanish found in quantity in Jamaica was met in part by the Crown's two estates on the island (Wright 1921: 72).

Settlers during this time were given lots of 150 - 200 Indians apiece to use as laborers under the normal system of encomienda (Wright 1921: 72). Encomienda as it evolved in the Indies, however, did not involve a grant of land as it did in Spain, but rather it became a system by which the Spanish parcelled out lots of Indians to ensure a stable labor supply to meet their demands. The obligation of the Spanish to instruct their natives in Christian principals and become their patron was an empty gesture that did little to protect the Indians from exploitation by their conquerors (Haring 1975: 41). Although the initial settlement of the island appears to have been quiet, the Jamaican Arawaks soon rebelled against the cruelty of the forced labor system. The atrocities carried out by Esquivel caused him to be branded the "depopulator of Jamaica" by Las Casas (Wynter 1984a: 3).

Fortunately, Esquivel was not popular with the agents of the Crown and he was dismissed in 1513, at which time Colon
appointed his uncle by marriage, Francisco de Garay, as second Governor to Jamaica. Garay did not immediately go to Jamaica. Rather he sailed to Spain in order to negotiate an asiento, or form of business partnership between himself and the Crown, for a period of 5 years for the economic development of the island (Wright 1921: 78). Earlier in 1514, the King had appointed Pedro de Mazuelo as the Royal factor and later Treasurer of Jamaica. Mazuelo left Hispaniola for Jamaica in October 1514 with two caravels loaded with settlers and livestock and took up residence in Sevilla la Nueva and appears to have assumed control over local affairs to some extent in absence of a resident governor (Floyd 1973: 110; Cotter 1970: 16). Garay finally arrived to take up his position as Governor in May of 1515, bringing with him skilled farmers from Spain and additional livestock for his estates. Jamaica was not to be without the fractionalism and personal rivalries that disrupted the early years of the history of Hispaniola. Conflicts between Garay and Mazuelo began as soon as Garay landed at Sevilla la Nueva (Floyd 1973: 20; Wynter 1984b: 1).

Garay's first task was to make a census of the dwellings, animals and Indians allotted to the King's hacinedas on the island (Cundall and Pietersz 1919: 3). This report makes mention that there were only a small number of natives left on the island at this time, a result of both the cruelties of forced labor and the transportation of natives
from the island to Hispaniola (Sauer 1966: 180).

In his report to the Crown in 1518, Garay also reported that he had moved the town of Sevilla a short distance from the site selected by Esquivel, built a second fort (house), continued the conversion of the indians by the resident Franciscan friars and arranged for the sons of the local caciques to be taught to read (Wynter 1984a: 2). Subsequently, in August 1519, the King appointed Garay as Warden of his Fort with a salary of 20,000 maravedis per annum. Antonio Garay, later succeeded his father as warden of this fort (Wright 1921: 74). Sometime after this, but before his resignation as Governor in 1522, Garay constructed two sugar mills, which are mentioned in his will. He died in 1523 (Wright 1921: 76).

The period up to the end of Garay's governorship appear to have been relatively prosperous ones for Jamaica and the residents of Sevilla la Nueva. There was a steady buildup of agricultural resources and the second town, Oristan, was established on the south coast of Jamaica near Bluefields. There appears to have been a further decrease in the native population by a smallpox epidemic among the Indians and slaves in 1520 that prompted the King to decrease the amount of the royal share in the gold discovered on the island in an effort to benefit the people and encourage more settlement on the island (Crosby 1972: 47; Cundall and Pietersz 1919: 5).

The success of Cortez's expeditions into Mexico and the
disaster of Garay's own colonizing venture into New Spain caused a general decline in the fortunes and population of the island after 1522. For the next 15-year period the history of Jamaica was dominated by Pedro de Mazuelo, the Royal Treasurer to the island, and his efforts to dictate local policy to the detriment of the Church, the Garay family and town of Sevilla la Nueva.

By 1524, fortunes on the island had obviously taken a drastic decline and labor was in short supply. Petitions were sent to the Crown requesting permission to import 300 slaves directly, from Africa. Further, the settlers requested that the livestock and estates owned by the Crown and Garay be divided up and sold to them to alleviate their poverty. (Wynter 1984b: 4).

The formal dissolution of the partnership between Garay and the Crown was marked by the sale, completed in 1529, of their jointly held properties. It appears, however, that even before this date, Antonio Garay had a great deal of trouble securing his inheritance from the executors of his father's will and in particular Mazuelo, the Treasurer. Among other matters, Garay complained in 1526 that the Treasurer had taken all the machinery from his sugar mills in Sevilla la Nueva to use in his own mills on the south coast. The Crown ordered Mazuelo to replace these items immediately or face penalty of a fine of 10,000 maravedis (Wynter 1984b:}
5).

Despite the economic decline of the colony, the activities of the Church seem to have been strong. Peter Martyr, the Royal historiographer and an official of the Council of the Indies, was appointed Abbot of Jamaica in 1524. Although he never visited Jamaica, he ordered the construction of a stone church to be built in Sevilla la Nueva in 1525 (Wynter 1984b: 5). It appears that the Church also had its problems with Mazuelo. In 1526, the King, in answering complaints from Peter Martyr, directed Mazuelo to stop interfering with the construction of the church and immediately restore the Indian artisans to this project (Cundall and Pietersz 1919: 7).

More complaints against Mazuelo and other royal officials of the island appear to have gone unheeded until early 1533 when a residencia (a thorough investigation into the conduct and accounts of a royal official) was ordered on all the officials of the island (Wynter 1984b: 7). At this time it was the Spanish Queen who ordered that a special inquiry should be made into the Indians, cattle and other things that had been administered by Mazuelo since the death of Garay, as it had come to her attention that they were profiting greatly by not reporting the proper incomes (Cundall and Pietersz 1919: 8). Unfortunately, the Judge of Inquiry, Gil Gonzales de Avilia died shortly after reaching Sevilla la Nueva in June of 1534 before the audit of accounts was complete.
Mazuelo and his supporters had planned to move the center of island administration from the Sevilla la Nueva to the south coast and establish the settlement of St. Jago de la Vega on the wide plain by the Rio Cobre near his own sugar mills and estates. Such a move would undoubtedly be very profitable to himself but would mean financial disaster to what remained of the Garay estates at Sevilla la Nueva. Taking advantage of the death of de Avila, and what he hoped would be the end of the residencia into his affairs, Mazuelo moved quickly to put into effect his recommendations to remove the remaining 20 vecinos (householders) to the south coast. His report stated that in all the years since the founding of Sevilla la Nueva not 10 healthy children had been raised due to the nearby swamps and that no food could be grown in the area, but on the south coast near his sugar mill, there was good land and water, no mountains and a good harbor, and that the ships bound for Cartegna now stopped only on the south coast and not the north (Cundall and Pietersz 1919: 11). A formal decree granting Mazuelo the right to shift the capital was granted on July 28, 1534 was signed by Emperor Charles V. With this charter, Sevilla la Nueva, ceased to serve as the capital of Jamaica and shortly thereafter appears to have been abandoned.

The residencia into the affairs of the island was however, reactivated within the year. Mazuelo was found guilty of several counts of expropriation of funds from the
Crown. It appears from a final letter 10 December 1536, wherein the Treasurer resigns, that he is bankrupt and feels he has been poorly served for his 25 years of service to the Crown in Jamaica (Wynter 1984b: 12). His appeal to the Crown, however, came too late, as months earlier, the Crown had passed its right to civil and criminal jurisdiction, mineral and pasture rights to the Colon Family as partial payment of their claims against the Spanish Crown for the retribution due them under the provisions of Columbus's original charter (Cundall and Pietersz 1919: 12). From this point in history, despite the fact that the Crown did retain supreme jurisdiction over the island, Jamaica quickly recedes into the background of the expanding Spanish empire in the Americas.

Perhaps prophetically, Mazuelo's last letter to the Crown states that Jamaica "is another Sicily in Italy, for it provides all the neighboring countries as well as the Main and New Spain and is in the center of them all. If times should change whoever is Lord of Jamaica will be Lord of these places on account of its situation ....His Majesty should on no account part with it " (Cundall and Pietersz 1919: 13). Jamaica did fall to the English forces of Sir Oliver Cromwell in 1655, thereby giving Spain's greatest rival a strategic base of operations in the very center of her American Empire.
Historical Descriptions of Sevilla la Nueva

There are few contemporary Spanish descriptions of Sevilla la Nueva, the first being in a letter dated June 11, 1515, wherein Francisco de Garay, the second Governor of the island, mentions a "fortress" and two associated structures:

he (Mazuelo, the treasurer) could order everything he required from the former Lieut. Governor who gave him a house that is here and which had the name of Fortress with two dwellings behind which Juan de Esquival, a former Governor had made and which the Lieut. Governors who governed the island had used....And when Garay arrived in Jamaica with his wife and ....went straight to the house, Mazuelo told him that he, Mazuelo, was in possession of that fortress which the Mayors had given him. Seeing the long time that it took Garay to come to Jamaica and that all the Lieut. Governors had lived in that house, it seemed to Garay that it was right that he (Garay) should have it. Mazuelo promised he would give it to him in a few days and in the meantime he went to a neighbor's house and speaking later to Mazuelo about it, Mazuelo did not want to give him the said fortress and acted very badly towards him (Cotter 1970: 16).
During the early years of his Governorship, Garay moved the settlement of Sevilla la Nueva from the site where Esquivel established the town to a second place and built a second fort of which he was appointed warden (Wright 1921: 74). Antonio de Garay succeeded his father in the wardenship of said fort and in 1527 this structure was described as being so badly in need of repair that it threatened to fall in upon its garrison which, the Crown was informed should consist of at least two men (Wright 1921: 74).

In a letter of September 1526 the King to the Governor and officials of Santiago (Jamaica), the King discusses the almsgift of 100,000 maravedís that he granted so that a hospital could be built at Sevilla la Nueva. It appeared that the officials of the island had reported that there was no need for a hospital as the few sick that did come to Sevilla la Nueva were cared for in the homes of the vecinos of that town. The King therefore decided that the money should be used for the construction of a stone church (Wright 1921: 75).

In the 1528 report on the dissolution of the assets of the Crown/Garay partnership mention is made of two sugar mills belonging to the elder Garay. One of these mills produced 12,000 arrobas of sugar per annum, and the other was not yet complete (Wright 1921: 76).

Seventeenth century English descriptions of the remains
of the abandoned city supply us with greater detail on the actual structures. In 1688/89, Sir Hans Sloane observed: the ruins of the town called Sevilla, among which a church built by Peter Martyr of Angeria, of a sort of freestone...and bricks.... It had a fortified castle, the walls of pebbles and bricks four feet thick.... the church was not finished.... there had been a raised tower, part brick and part hewn stone, as also several battlements on it..... A great many wells are on the ground. (Sloane 1707: lxvi).
Obviously, there must have been a substantial amount of the town left after it was abandoned 150 years before. Edward Long, a later English chronicler reported:

Several fragments of the carved work in stone, such as moldings, festoons, cherubs, etc... are still to be seen here.... The ruins of two edifices one said to have been a castle the other dedicated to religious use are still remaining: the walls of which are several feet in thickness...... The castle and the church, being almost half a mile asunder may give us some idea of the intended extent and grandeur of this place... The Spanish habitations have long been demolished and the ground where they stood converted into canefields (Cotter 1970: 16).

Agricultural development of the rich plain that borders the north coast of the island gradually silted up sections of
St. Ann's Bay, thereby increasing the size of the Seville Estate. The remains of the Spanish townsite eventually disappeared and lay protected beneath the plantation fields until its rediscovery in 1937.
CHAPTER II
COTTER'S EXCAVATION OF SEVILLA LA NUEVA

Charles Cotter resumed his archaeological investigation of Sevilla la Nueva in 1953. Working an average of 17 days per year until 1968, Cotter discovered four major features and traces of 15 smaller buildings (Cotter 1970: 17). He kept careful field notes throughout the early years of his excavations that include detailed sketches of architectural features, inventories of the materials recovered, and rough maps of the areas in which he worked. All of this documentation and some of his correspondence to various foreign scholars have been preserved and were of immense help in reconstructing his field work.

Unfortunately, as neither Mr. Cotter's maps nor maps produced by subsequent surveys positioned the major features of the Spanish townsite relative to the established government benchmarks it was necessary to resurvey the lower fields of the Seville Estate to relocate Cotter's excavations. In 1981 the Institute of Nautical Archaeology conducted a survey of the estate, relocated Cotter's four major features, determined their geographical locations relative to government benchmarks, and established the land contours immediately surrounding those features to produce an overall site map (Figure 2) (Lakey, Thompson, Oertling and Woodward 1981: 16).
Overall Site Plan
Sevilla la Nueva
26 July 1981

FIGURE 2. Overall Site Plan - Sevilla la
Feature 1: Castle/Fort

The castle/fort was the structure found in 1937 by Mr. Casserly, and to this day remains the most prominent foundation at the site (Figure 3). Cotter imposed an arbitrary grid system across Feature 1 and most of the artifacts are provenienced to a 10-foot grid square. The stratigraphy of all the archaeological deposits must be reconstructed on a more general basis from Cotter's field notes, thus making it impossible to assess actual changes in ceramic style or distribution of certain ceramic groups through the 26 years of the site's occupation.

The "Castle/fort" consists of a two-room structure having brick and stone foundations (Figures 4,5a). The outside corners of the building and three sections of the north and east walls were constructed of brick, while the walls, measuring 1.25 to 1.28 m in thickness, are faced on both surfaces with rough limestone blocks and are filled with a rubble limestone (Lakey et al. 1981: 24). During the course of his excavations Cotter noted finding quantities of bricks at each corner of this structure, indicating that the walls had fallen outward. He also indicated that several paved brick sections of the walls might be doorways or perhaps sills for windows, a conclusion supported by the presence of refuse pits adjacent to these sections.

The large, rectangular Room 1 (19.2m x 6.3m), forming the western side of Feature 1, lies on a north-south
FIGURE 3, The Castle - Seyfilla la Nueva
The Castle
Sevilla la Nueva
19 July 1981
FIGURE 4. Cotter's plan of Feature 1, the Castle/fort, Sevilla la Nueva.
FIGURE 5. a, view of Feature 1, the Castle/fort from the northwest; b, view of Feature 2, the Associated Structure from the east.
axis. The southern end of this room has been destroyed by the construction of an English plantation road. A second, smaller room forms the eastern side of the building. It should be noted that Cotter's plan (Figure 4) portrays this eastern room as square, but while each of the sides measures 7.6 m, the diagonal measurement differs by .5 m, thus making the room a parallelogram.

Two large brick-lined shafts were incorporated into the construction of this feature. Shaft 1, designated the "well" is a circular feature situated in the northwest corner of Room 1 (Figure 6). In this well Casserly, Cotter and Goodwin discovered the carved limestone blocks during the initial excavations of 1937. Shaft 1 is 1.5 m square and 3.6 m deep, it is completely brick lined and rests on a footing of limestone blocks. The circular, brick paved opening is constricted to a diameter of .70m by two pairs of arches set at right angles to each other (Lakey et al. 1981: 28). Cotter noted that this constricted opening was surrounded by a 5 ft sq., inward sloping pavement presumably for draining, thus indicating that this shaft was used for water storage. In addition to the carved stones, Cotter found 7 pieces of iron hoop, 3.18 cm wide and .6 cm thick, apparently belonging to a water bucket long since eroded away (Cotter 1970: 18). There was also a considerable amount of ceramic and faunal material recovered from in and around the well and the north end of Room 1.
FIGURE 6. The Brick Shafts.
The Brick Shafts
Castle Structure
Sevilla la Nueva

brick wall
limestone wall
average brick size

meters
The second shaft, designated the "cellar" in Cotter's notes, is virtually the same size as the first and contains similar pairs of joist holes (Figure 6). The only apparent access to this shaft is a paved brick passage from the west corner of Room 2. Cotter felt that the additional feature of large square holes in the center of the north and south walls of this shaft may have accommodated some sort of windlass. Therefore, he felt that this shaft was used as a two storied cellar for storage of dry goods (Cotter 1970: 18). The cellar shaft yielded large quantities of faunal material, Spanish storage wares and Indian ceramics.

Cotter noted that he found sections of plastered walls, a gargoyle resembling a headless dog, carved coats of arms and other pieces of decorative masonry, and molded brick work from Feature 1. The diversity and quality of the artifacts indicate that this was an important structure within the town. Whether it was the original fort or Garay's palace may be determined from the following analysis of the artifacts.

Feature 2: "Associated Structure"

Feature 2, a brick structure, is located approximately 15.5 m west of the castle/fort (Figures 5b & 7). This structure faces east and for the most part is below the level of the surrounding terrain, although its top surface is slightly higher than the elevation of the floor of the Feature 1
FIGURE 7. Feature 2, Associated Structure, Sevilla la Nueva.
(Lakey et al. 1982: 31). Cotter excavated the area in front of this feature, uncovering a paved floor and a small brick-lined basin. Two small channels run from the back of the structure to the front along both the north and south sides and two slit-like openings on the front of the structure that Cotter consolidated with cement.

Cotter continued his excavation trench east from this feature towards the southern end of Feature 1 to ascertain whether these two structures were physically connected. While he did find a refuse dump containing Spanish copper coins and fragments of maiolica and earthenware pottery, there were no connecting walls. Perhaps prompted by the discovery a small 16th-century swivel gun and a military fork in the fields surrounding the castle/fort, Cotter described Feature 2 as a defensive work or gun emplacement protecting the southern approach to the castle (Cotter 1970: 17).

However, the various channels, the structure's depth below the castle and its associated basin are suggestive of a hydrological rather than a military function. A similar brick-lined basin was found in association with the fort at the 16th-century Spanish settlement of La Antigua Concepcion de la Vega on Hispaniola. The Hispaniola basin structure included gutters for the collection and discharge of water and is plainly part of the drainage system around the fort (Lakey et al. 1981: 32).
Feature 3: The Sugar Mill

In 1964 Cotter discovered a small sugar mill site some 300 m southwest of the castle structure. This may have been one of the two mills referred to in a letter in 1532 as belonging to Francisco de Garay, the second Governor of Jamaica (Cundall and Pietersz 1919: 8). The excavation of this feature between 1964 and 1967 revealed the remains of brick pavements and a pit containing three masonry arches. Fragments of plaster and brick uprights were found in each of the four corners of the mill pit (Figure 8). The base of the arches was 2.2 m below the present ground level and the arches were set 0.38 m apart. Cotter estimated that the arches were 1.7 m in height and had a span of 3 m (Figure 8). To ensure greater lateral support, the arches were built below the ground. Cotter hypothesized that this was an Egyptian type mill with two vertical gear wheels fitted into the spaces between the arches with a horizontal gear above. Such a mill would have been powered by man, mule or possibly a cow. No evidence of mill machinery was found during Cotter's excavation although it seems reasonable to assume that the Spaniards dismantled and moved the mill before abandoning the town (Lakey et al. 1981: 34).

The greatest concentration of artifactual material was found in the area immediately north of the mill pit where the brick pavement had been disturbed by the root system of a
FIGURE 8. a, C.S. Cotter's excavation plan of the Sugar Mill; b, Cotter's plan for the reconstruction of the Sugar Mill. (Photo courtesy of the Jamaica Journal).
coconut tree and by two irrigation ditches. Working north from the remaining pavement at the edge of the mill pit, Cotter encountered three deposits of charcoal and burnt brick suggesting an area where the cane liquor might have been processed. Between the charcoal deposits Cotter found further evidence of brick pavement which he supposed to be a cooling house. On the western edge of the excavation area, he uncovered a large deposit of broken sugar molds.

Cotter stated in his excavation notes that the bricks from the mill structure were slightly larger than those from the castle. However, the 1981 sampling indicated the bricks from both sites are of equal size. In addition to the large quantities of molds and brick fragments, Cotter recovered several iron spikes, a few sherds of white maiolica, Arawak pottery and hundreds of glass trade beads (Lakey et al. 1981: 34).

Feature 4: Cotter's NE Excavation Area.

While Feature 4 received the label of "Feature" because the area was excavated as such by Cotter, no discernable structural remains were apparent to the 1981 survey team. Feature 4 consisted of a rectangular shaped depression with lose bricks around the edges and two evenly spread piles of bricks. With no structural remains, and no notation in his notes regarding what he recovered from this area, a Feature analysis is impossible. Mr. Percy White, Cotter's field assistant recalled their finding a brick pavement, some
earthenware sherds, iron fragments and a cannon ball (White pers. com.).

Cotter did not record his surface finds or make notations regarding any of the smaller features he discovered during the course of his work. This study will therefore concentrate on the analysis of those artifacts from the Castle/fort, associated structure and the sugar mill.
CHAPTER III
CERAMIC ASSEMBLAGE

Non-vessel Form Ceramics

Ceramic artifacts from Sevilla la Nueva as represented in the Cotter Collection can be divided into two categories: non-vessel form and vessel form ceramics. Of the non-vessel form ceramics there are three main groupings: construction materials, smoking materials and beads.

The construction materials consist of red earthenware buff colored bricks (ladrillos), red earthenware roof tiles (tejas) and plain red earthenware floor tiles.

Cotter excavated enormous quantities of the buff colored ladrillos at Features 1, 2, and 3. He included in his collection all the uniquely shaped bricks and a representative sample of the plain, oblong building bricks, the remainder of which were put in spoil piles around the perimeter of each feature. His field notes contain detailed sketches and notes as to how the bricks lay in relation to the foundations and walls of the various structures.

In general, the texture of these bricks is chalky, but those surfaces that have been exposed to the elements tend to be harder. Vegetable matter was used as a temper. The average dimensions of the oblong bricks were 29.42 cm x 14.5 cm x 4.85 cm. The standard deviation was very slight in each instant. In addition to the oblong construction bricks, there are two different types of molded
decorative bricks (Figures 9c, 10a), rounded bricks used in the construction of columns (Figure 11) and small hemispherical bricks that according to Cotter's field notes were motored together in pairs and used as some sort of architectural decoration (Figure 12b). There was a fifth type of brick used in the construction of floor gutters (Lopez, pers com.; Figure 9d), and one brick that had a decoration etched onto its upper surface (Figure 10b).

There was one very hard buff colored brick which was not used in any form of building construction, but it appears to be an early example of a gang mold for lead musket balls (Figure 12c). A locating pin which goes through one side of the brick would help secure the second half of the mold in the correct position. There is also a sprue from the outer edge to the first of the three depressions through which the lead was poured and smaller sprues leading to the other sections of the mold.

Early documents mention the names of stone masons and brick masons who were included on Columbus's second voyage to the Indies in 1494, and "Juan Rabe: Brick mason and other craftsmen" were recorded as persons who accompanied Nicolas de Ovando to Hispaniola in 1502 (Montas 1980: 23). Although qualified craftsmen and abundant clay resources were available to the early Spanish colonists, the importation of bricks and construction material from Spain continued through the first decades of the 16th century. Large quantities of
FIGURE 9. a, b, Two types of Spanish roof tiles; c, molded brick; d, molded gutter brick.
FIGURE 10. Spanish building materials. a, molded brick; b, brick with an inscribed decoration.
FIGURE 11. Spanish building materials. The fragment of rounded brick at the top of the photograph is 1/4 of a flat rounded brick used in the construction of a column. Four such fragments joined together fit the marble column base recovered from Feature 1, the castle/fort, Sevilla la Nueva.
FIGURE 12. a, semi-circular molded brick with a central hole; b, a reproduction of a sketch from C.S. Cotter's field notes demonstrating the manner in which two semi-circular bricks were joined together and fitted at the base of an arch; c, brick mushet-ball mold.
Ladrillos are noted on the cargo manifests of the fleet of Diego Colon in 1509 (Otte 1964: 487). Perhaps because of this, in 1510 Colon actually organized an expedition of master stone masons and brick masons to be sent to the Indies to oversee the planning and construction of buildings in the Indies. The Casa de Contratación in Seville did recruit 2 master craftsmen and 11 workmen, all of whom sailed from San Lucar de Barrameda to the New World in June 1510 (Montas 1980: 24). Certainly, there was abundant local material and skilled labor to establish a local brick-making industry at Sevilla la Nueva, but whether this was the case or not has yet to be established.

Roof tiles were also imported in large quantities in the cargo of the fleet of 1509 (Otte 1964: 478). The Cotter Collection contains 409 tiles sherds, representing two different types of roof tiles: curved Islamic tiles and flat tiles that are Roman in origin (Montas 1980: 170). The curved tiles are used on sharply sloping roofs (48 degrees). They were arranged in double rows, normally without mortar. The flat tiles, however, were used on less sloping roofs and were fixed in place with mortar, thus providing less resistance to hurricanes and rain (Montas 1980: 170). Figures 9a and 9b depict the difference in the curvature of the outer edge of these two types of tiles. All the tiles were in a very fragmented condition. The collection also contained a few flat red earthenware floor tiles, but no
glazed floor tiles were found at any of the structures excavated by Cotter.

The second type of non-vessel ceramic is smoking materials, of which there are two categories: coarse earthenware reed pipes of Spanish origin and English made white kaolin pipes and similarly made red clay pipes. The Spanish reed pipe (Figure 13a) was designed to be used with a hollow reed inserted into the base of the pipe. The lone, complete pipe is an elbow form type that has a well defined angle between the bowl and stem sections (Council 1975: 46). There is a faint incised linear pattern on the base of the stem of this pipe, the bowl however is completely plain.

The dimensions of the English pipes stems are recorded in Table 1 on page 47. The median date for this deposit of English kaolin pipes was determined to be 1737, based on Dr. Lewis Binford's formula to determine the mean date for ceramic pipes (Hume 1978: 299). Clearly, this material is intrusive to the Spanish townsie as it was deposited some 200 years after the town was abandoned. The red terracotta clay pipes are a local Jamaican variety post dating the mid-17th century and carrying on through the early 18th century.

The final group of non-vessel ceramics from Sevilla la Nueva is unique - decorated Arawak tubular clay beads (Figure 13b). The paste is very compact dark brown clay of
FIGURE 13. a, Spanish reed pipe; b, Arawak clay beads.
which the surface was burnished before the incised designs were added. Unfortunately, there is no provenience for these beads recorded in Cotter's field notes.

**TABLE 1**

**ENGLISH KAOLIN PIPE STEMS**

**BINFORD MEAN BORE DIAMETER DATA**

<table>
<thead>
<tr>
<th>DIAMETER</th>
<th>FRAGMENTS</th>
<th>PRODUCT</th>
<th>HARRINGTON'S DATES*</th>
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<tbody>
<tr>
<td>4/64&quot;</td>
<td>6</td>
<td>24</td>
<td>1750-1800</td>
</tr>
<tr>
<td>5/64&quot;</td>
<td>12</td>
<td>60</td>
<td>1710-1750</td>
</tr>
<tr>
<td>6/64&quot;</td>
<td>1</td>
<td>6</td>
<td>1680-1710</td>
</tr>
<tr>
<td>7/64&quot;</td>
<td>2</td>
<td>14</td>
<td>1650-1680</td>
</tr>
<tr>
<td>8/64&quot;</td>
<td>1</td>
<td>8</td>
<td>1620-1650</td>
</tr>
</tbody>
</table>

**TOTAL** 22 112 = X = 5.09

**BINFORD FORMULA:** Y = 1931.85 - 38.26X *

1931.85 - 194.778 = 1737.07

**MEAN DATE** for the Sevilla la Nueva White Kaolin Pipes: 1737.

*Hume 1978: 298

** Additionally, there were 6 Jamaican red clay pipe stems.
Ceramic Vessels: Introduction

Ceramic vessels are fragile, yet the physical nature of the material itself is durable and highly resistant to corrosion. Because of these physical qualities ceramics are usually found in abundance at archaeological sites and as such prove to be one of the most informative types of material culture available to the archaeologist (Deetz 1977: 46). Any discussion of ceramic vessels and their use must consider the place of ceramics in the cultures: their acquisition, use and ultimate disposal all result from certain aspects of the lifeways of their owners (Deetz 1973: 15).

The majority of the Cotter Collection consists of fragments of various types of ceramic vessels. A consistently high proportion of ceramic materials has been noted at all Spanish sites both in the Caribbean and Florida (Deagan 1983: 233) and this is attributed to the longstanding popularity of ceramics in the Mediterranean and in Spain in particular. In these regions, ceramics versus metal or wooden vessels had a wide range of functions including storage, cooking and tablewares. This was no less the case in 16th-century Spain. Additionally, the Amerindian peoples of the Caribbean had a highly developed ceramic industry of their own prior to the Spanish contact.

On the basis of technological and decorative criteria, the ceramic vessel fragments of the Cotter Collection can be
divided into seven main categories: Spanish tin-enamed earthenwares (maiolica); Spanish lead glazed earthenwares; unglazed Spanish earthenwares; Spanish Olive Jar; miscellaneous European earthenwares; Arawak pottery; and finally a unique class of ceramics peculiar to Jamaica - an Indo-Hispanic ware, hereafter referred to as St Ann's Bay Ware. Each of these categories may in turn be divided into several subsections dependent on the paste of the ceramic vessel or style of decoration and function. The relative proportions of each of these seven categories in the Cotter Collection is shown in Table 2 on page 50.

It should be noted that much of the research pertaining to the types of Iberian ceramics found at Spanish sites in the Caribbean is art historical in nature and is based on special collections found in museums, especially with regards to maiolica. Very little archaeological research has been conducted in respect to late medieval and Renaissance ceramics in Spain to back up the research done in recent years by Spanish colonial archaeologists in North and Latin America. Thus, dates for many types of Iberian derived ceramics are given from their earliest occurrence in a New World colonial context to their "terminus post quem" in a colonial context.

Maiolica

Tin-glazed earthenware - maiolica - is perhaps the most
### Table 2

**Ceramic Assemblage % Chart**

<table>
<thead>
<tr>
<th>SPANISH MAIOLICA</th>
<th>TOTAL</th>
<th>% OF</th>
<th>% OF</th>
<th>% OF</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>CLASS</td>
<td>EURO-</td>
<td>PEAN</td>
</tr>
<tr>
<td>Columbia Plain</td>
<td>179</td>
<td>93.72</td>
<td>7.28</td>
<td>4.17</td>
</tr>
<tr>
<td>Isabella Polychrome</td>
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<td>1.57</td>
<td>.12</td>
<td>.06</td>
</tr>
<tr>
<td>La Vega Blue on White</td>
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<td>.12</td>
<td>.06</td>
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<tr>
<td><strong>TOTAL</strong></td>
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<table>
<thead>
<tr>
<th>SPANISH LEAD–GLAZED EARTHENWARE</th>
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<tr>
<td>Honey Colored Ware</td>
<td>55</td>
<td>12.47</td>
<td>2.24</td>
<td>1.28</td>
</tr>
<tr>
<td>El Morro Ware</td>
<td>13</td>
<td>2.95</td>
<td>.63</td>
<td>.30</td>
</tr>
<tr>
<td>Green Basin Ware</td>
<td>8</td>
<td>1.81</td>
<td>.32</td>
<td>.18</td>
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<tr>
<td>Early Style Olive Jar</td>
<td>365</td>
<td>82.77</td>
<td>14.85</td>
<td>8.56</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td>441</td>
<td>100.00</td>
<td>17.94</td>
<td>10.26</td>
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<table>
<thead>
<tr>
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<td>.04</td>
<td>.02</td>
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<td>Sugar Moulds</td>
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<td>79.03</td>
<td>50.12</td>
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<tr>
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<table>
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<td>100.00</td>
<td>10.86</td>
<td>6.22</td>
</tr>
</tbody>
</table>

| **TOTAL EUROPEAN CERAMICS**    | 2458  | 100.00| 57.27|

| **TOTAL ARAWAK CERAMICS**      | 1797  | 41.87|

| **TOTAL ST. ANN'S BAY WARE**   | 37    | .86 |

**Total Ceramics - Vessel Forms 4292 100.00**
distinctive and most thoroughly documented type of Iberian ceramic in the New World. Maiolica, therefore, serves as an excellent chronological marker, as well as an indicator of social status and level of foreign trade, especially in the first half of the 16th century, prior to the establishment of the maiolica industry in the New World. Between 1504 and 1555, over 2800 ships sailed from Spain to the Indies, maiolica, listed as *loza blanca* on the early manifests was included on outward bound ships (Revello 1943: 773-80). More recently, excavations throughout the Spanish Indies confirm that all types of pottery, from the most common to the most exquisite that were available in contemporary Spain, were shipped to the New World.

The term maiolica (majolica) is Italian in origin. It was used in association with a particular tin-glazed ware that was traded to Italy from the Kingdom of Aragon via the island of Majorca. Maiolica was first introduced to Spain by the Muslim invaders who occupied the Iberian Peninsula between the 8th and 15th centuries. The metallic lusterware forms of maiolica were predominant during most of this period in Moorish Spain but by the 13th century the first truly Spanish tradition of maiolica emerged. Typified by green (lead) and mulberry (manganese) designs on a lead glaze background made opaque white by the addition of tin oxide. This tradition evolved in the areas under Muslim rule: Andalusia, Spanish Levant and Aragon – and spread to
Catalonia and Castile (Lister and Lister 1969: 5). In the
15th century the green/mulberry colors tradition gave way to
blue designs on white tin-glazed vessels and tiles. The
center of the maiolica industry gradually shifted to the
inland port environs of Seville - the wealthiest and most
populous city of Castile. By the mid-sixteenth century, the
Sevillian suburb of Talvera de la Reina boasted over 50
pottery workshops (Lister and Lister 1982: 45).

As it was the Castillian monarch, Queen Isabella, who
sponsored Columbus' momentous voyage, the Indies and its
trade were considered to be the exclusive possession of
Castile (Haring 1964: 8). Seville and her merchants, both
local and foreign, were quick to establish a monopoly on this
trade. Thus it is not surprising that most of the maiolica
found in the New World dating from the early 16th century is
Castillian and more probably Sevillian in origin (Lister and
Lister 1982: 45).

The distribution of Spanish maiolica in the New World
can be correlated with a number of different factors, most
importantly: the relative wealth of a community, the
accessibility of the townsite to the trade routes, and the
government control in Seville (Goggin 1968: 211). As the
production of maiolica vessels was costly both in regards to
the amount of time it took to form and decorate each
individual piece of tableware and in terms of the
expense of constituent materials, their presence at an
archaeological site is invariably considered as an indicator
of high status or wealth of the former occupants. Maiolica
vessels do not appear to have been used as trade items to the
indians of the Caribbean (Goggin 1968: 211), and only a few
sherds of this ware have been found at Arawak middens in
Jamaica (Goggin 1968: 36).

As the manufacture of maiolica in the New World did not
begin until several years after Sevilla la Nueva was
abandoned in 1534, the maiolica present in the Cotter
Collection is characterized exclusively by Iberian derived
wares. All these wares can be categorized in Goggin's
Medieval Tradition of Spanish maiolica which appears in the
New World after 1493 and remains the dominant style until c.
1550. These Medieval Tradition wares are also termed Morisco
wares by the Listers. They are characterized by relatively
thick and massive tableware vessels such as concave bottomed
plates and angular small bowls (escudillas), cylindrical
jars, small pitchers and shallow bowls (Lister & Lister 1982:
45). Although the most common type of this ware is
predominantly plain white or white with small amounts of
green, moresque decorative designs in blue or mulberry are
not uncommon (Goggin 1968: 207). This tableware was
manufactured by simple wheel throwing or by the clay being
drawn down over a jigger form spinning on the center of a
wheel (Lister and Lister 1982: 47)
Despite the large and obviously important status of some of the features excavated by Cotter at Sevilla la Nueva, maiolica only accounts for 4.43% of the ceramics in the Collection. The types of maiolica represented in the collection include: Columbia Plain, Caparra Blue, Isabella Polychrome, and La Vega Blue on White.

Columbia Plain Ware

The 179 sherds of Columbia Plain accounts for 94% of all the maiolica in the Cotter Collection. Columbia Plain ware is characterized by a soft, fine compact cream or pinkish colored paste covered with plain white tin glaze. This glaze may have a matte or glossy finish depending upon the amount of tin used in the enamel. Early examples of this type of maiolica may have an additional coating of green enamel that may cover all or half the surface of a vessel. Green bands and specks of green on the exterior of Columbia Plain vessels are also common decorative devices. There are examples of all the above detailed variations in the Cotter Collection. While plates and small carinated bowls or cups, escudillas, are the most common vessel forms of Columbia Plain found at Sevilla la Nueva, there are also examples of a large bowl or casserole, pitchers, tall flat based jars, open mouthed jars, and a variety of lids and handles. Some of these forms, the escudilla in particular, warrant closer examination.
Small carinated drinking bowls, escudillas, developed as a vessel form in the Medieval tradition but continued to be popular in later centuries as well (Fairbanks 1973: 159). The escudilla represents an early example of ceramic mass production, in that it was manufactured with a jigger or template to form the exterior profile. Its profile and the thickening of the vessel walls at the point of carination suggest that it was particularly well suited for stacking and thus being easily transported or shipped (Boone 1984: 78).

Despite the standardization of form, Boone noticed in studying 50 examples from the 16th-century Portuguese garrison town of Qsar-es-Seghir in Morocco (1458-1550) that certain features of the escudillas such as the presence of depression bases or ring-foot bases, matte or glossy glaze, rim diameter, presence or absence of handles and green highlights or green glaze seem to vary with time or possibly indicate a change in the place of manufacture (Boone 1984: 78).

From the collection at Qsar-es-Seghir, Boone determined that these six attributes fell into two general categories: those that prevail in a particular time period or those that seem to be related to a particular stylistic variant in their manufacture (for example: inset bases) and are associated with a time period only secondarily (Boone 1984: 82). He determined that glaze and base types are strongly associated with each other and even more strongly associated with a
particular time period. Ring bases are restricted to the post-1520 contexts and inset bases are found on all bowls predating this period. 70% of the bowls with inset bases have a glossy glaze, while the matte glaze is normally restricted to ring-footed bowls. Rim diameters are also standardized within base categories while paste color does not show any clear association. Handles are most typically associated glossy-inset based bowls and green highlights with glossy glaze (Boone 1984: 83).

There were fragments of 20 escudillas in the Cotter Collection Collection, all of which are associated with Feature 1, the Castle/Fort. Only 5 bowls were complete enough to be compared to those found at Qsar-es-Seghir.

Of the 5 complete escudillas from Sevilla la Nueva (Figure 14a-c,e,f), four (or 80%) had inset bases with a matte glaze and 1 bowl had a ring base with a glossy finish, whereas 71% of the bowls with inset bases from Qsar-es-Seghir had a glossy finish and 83% of the ring-footed bowls had a matte finish (Boone 1984: 82). None of the bowls from Sevilla la Nueva had handles of any form and the coloration of the paste does not appear to be associated with any particular base style. No pronounced green decoration appeared on any of the Cotter Collection bowls but green tints, perhaps caused by impurities in the glaze are associated with 3 of the 4 matte glazed bowls. Three of the bowls with inset bases had a rim diameter of 13 cm, while the fourth had a diameter of
10 cm (Figure 14a), all four fit into Boone's middle period (1492-1520). The ring-footed bowl has a diameter of 15 cm (Figure 14b) and fits into Boone's late style escudilla c.1520-1550 (Boone 1984:85).

Although the characteristics of the bowls found at Sevilla la Nueva differ from those found at the Portuguese garrison in Morocco, they follow the trends established by Boone for his middle to late period bowl attributes. He felt that sometime after 1520 there was a stylistic change towards the matte finish and ring-footed bowls. This change, took place in the middle of the 25 year span of Sevilla la Nueva's existence. It appears from the small Jamaican collection of escudillas, that the tendency towards a matte finish occurred somewhat before the adoption of the ring-foot modification to the bowl, and that for most of the period between 1509-34, the inset base still the norm.

Goggin also noted from his extensive work in the Caribbean that the inset bases appear to be an earlier variant and that this base treatment gives way to the ring-foot base sometime before the middle of the 16th century (Goggin 1986: 121). This was also the case observed at Nueva Cadiz (Willis 1976: 112) and Convento di San Francisco (Council 1975: 64).

The Cotter Collection contained some 22 plate sherds of Columbia Plain ware. At least 6 different plates are represented, all having the characteristic medieval form of inset bases with an accompanying interior hump in the center
of the plate (Figure 15a-e). The inset base measured 5 cm in
diameter in all cases, the diameter of the one complete plate
was 24 cm. Four of the 6 plates had a glossy white glaze
with green tints while several of the associated plate sherds
were glazed entirely with a green enamel.

The use of green coloring in and on tin-enameded
earthenware was apparently a Moorish decorative device that
was retained by the Spanish artisans after the Moors
were driven from Spain in the 15th century (Goggin 1986:119). 21% of the 89 miscellaneous Columbia Plain sherds had
evidence of green glaze, 42% were plain white and 37% were
too weathered to be accurately judged.

The Cotter Collection contained base fragments belonging
to a Columbia Plain ring-footed straight-sided jar, probably
an albarello (Figure 16c). Both the name and the shape of
these jars come from the Arabic ceramic tradition. These
jars were eventually adopted throughout western Europe. In
Spain the tall cylindrical albarello jars, some with a slight
tapering through the middle, were common from the 14th
century. The taller jars were used for powders, balsams and
spices, the shorter ones for ungents (Protheringham 1951:
171). Later examples from the area near Seville are known to
have small domed lids topped with a small knob (Lister and
Lister 1976: 13). There are several fragments and two
complete maiolica lids in the collection that may have been
used in conjunction with this type of jar (Figure 17a, c-f).
FIGURE 15. Columbia Plain: plates
FIGURE 16. a, b, Columbia Plain: jarro fragments; c, Columbia Plain: albarello base; d, Columbia Plain: cup; e, Columbia Plain: handle fragment.
FIGURE 17. Maiolica lids.
Cotter recovered two examples of small Columbia Plain open-mouthed jars or jarros from the area around the vaulted well of Feature 1. A single green line is used to accent the exterior edge of the rim on both jars. Figure 16a illustrates the most complete of these jars. The interior of these vessels was white with green tints throughout. Jarros with single handles were used for pouring, while those with paired handles often served as measures for grain or other dry goods (Lister and Lister 1976: 54). Figure 16b represents part of a small jarro or pitcher with a flat base and flaring sides.

The same decorative technique of concentric green lines was present on the largest of the Columbia Plain vessels in the Collection, that being a serving bowl or casserole (Figure 18). This vessel was recovered from the area around the vaulted well of Feature 1. The areas of white glaze between the raised bands of green glaze on this bowl are heavily tinted with green. A large fragment of a Columbia Plain handle with the same pale green highlights was also found at the castle/fort (Figure 16e).

The last identifiable Columbia Plain ware vessel is a small lug-handled cup (Figure 16d). Having a diameter of just 6 cm, it does not have the pronounced carination on its side to allow its classification as an escudilla. It appears instead to be a small cup for drinking.
Caparra Blue Ware

There are 4 body sherds, a rim and a base sherd of Caparra Blue ware in the Cotter Collection. This type of maiolica is distinguished by compact paste and a solid blue exterior glaze with a thin white tin-glaze on the interior. Recently, the Listers have redefined this ware as Guadalquivir Ware - Plain (Lister and Lister 1982: 61). This unique blue maiolica appears to be a Sevillian imitation of a particular 16th century Genoese maiolica that had a blue background glaze owing to the addition of a small amount of cobalt being added to the normal tin enamel solution. The name, Caparra Blue ware is taken from the original settlement of Caparra in Puerto Rico where it was first found in small amounts. It is present in small amounts at almost all early 16th-century Spanish sites in the New World but rarely in post 1550 contexts (Goggin 1968: 135). Goggin noted that the only known vessel form of this type of maiolica is the albarelo or drug jar. However, it is possible that the base sherd (Figure 19b) and some of the body sherds of this type of ware belong to a flat-based, straight-sided vessel, while the rim sherd, appears to belong to a wide-mouthed round-sided vessel (Figure 19c); and recent excavations of the 16th-century levels of Mexico city also suggest that additional vessel forms may be a possibility (Lister and Lister 1982: 61).
FIGURE 19. a, feldspar-inlaid ware sherd; b, Caparra Blue base sherd; c, Caparra Blue rim sherd of a jarro.
Isabella Polychrome

A second, distinctly early 16th century maiolica, Isabella Polychrome, is represented in the Cotter Collection by 3 sherds. All these fragments have a paste similar to that of Columbia Plain ware. They are decorated by dull blue and manganese purple painted decorations on a white enamel surface. The two body sherds are small and comparatively chunky, one being 12.5 mm thick. Both have fragments of purple and blue enamel on their exterior surfaces. The third is a base sherd belonging to a straight-sided, flat-based albarello or pitcher. This sherd is decorated with thick purple dashes underlined by a thin blue line that would have typically continued around the base of the jar. It has been observed that this type of ware was normally decorated with concentric lines of blue and purple and that the area between these lines near the rim or base of a vessel served as a decorative zone of conventionalized patterns, such as floral motifs or a careless reproduction of Arabic calligraphy (Lister and Lister 1982: 52). This ware had a wide distribution between the 13 and 15th centuries in Muslim Spain and North Africa and is not common in post-15th-century Old World contexts. Although the decorative devices and coloration are from the Hispano-Moresque tradition, the name of this type of maiolica is derived from the town of Isabella, founded in 1493 by Columbus in present day Haiti (Goggin 1968: 128). It is rarely found in post-1550 contexts.
in the New World (Fairbanks 1972: 153).

La Vega Blue on White

Three sherds of La Vega Blue on White make up the remainder of the maiolica in the Cotter Collection. Goggin visited Cotter's excavation on February 1, 1962 and identified the blue and white maiolica as examples of La Vega Blue on White (Cotter n.d.: 92). The paste of these sherds is similar to that of Columbia Plain. They are decorated with blue paint on a white enamel background. This type of maiolica takes its name from the site of La Vega Vieja on Hispaniola, although like all the other types of early 16th-century maiolica in the Collection it was probably manufactured in southern Spain. Goggin gives it a chronological range of 1525-1575 (Goggin 1968: 131)

The most interesting sherd is a complete lid belonging to a small jar (Figure 17b). Cotter includes this in the material from Sevilla la Nueva, but there are no provenience markings (Cotter 1970: 21). The other fragments are two small body sherds, one of which was found at Feature 3: the Sugar Mill; the other was found in the main refuse pit to the west of Feature 1.

Honey-colored Ware

The most numerous type of lead-glazed tableware in the Cotter Collection is Honey-colored ware or melado ware which is represented by 55 sherds or 1.28% of the vessel-form
ceramics. Honey-colored ware has a cream colored paste that is similar yet harder and less chalky than that of the Columbia Plain maiolica. This ware takes its name from the coloration of its thick lead glaze that varies from a light olive-yellow to a rich honey brown. The glaze sometimes appears slightly opaque, giving rise to speculation that minute quantities of tin may have been added to the glaze. Chemical analysis of glaze from two samples of this ware did not reveal any tin in the composition of the glaze (Appendix 1). Some Honey-colored ware vessels may also be decorated with a crude design or linear pattern painted in a dark brown slip under the glaze (Goggin 1968: 227).

Honey-colored ware occurred in abundance in the ceramic assemblages from the townsites of Isabella (1493-1503) and Nueva Cadiz (1498-1545) where it represented 7% of the ceramic assemblage (Willis 1976: 126) and in smaller amounts at other early 16th-century sites. Honey-colored ware appears to be restricted to pre-1550 contexts and as such, it is considered a reliable time marker (Fairbanks 1973: 167). This theory is supported by its complete absence from the 16th-century ceramic assemblage of St. Augustine, Florida, which was founded in 1562 (Deagan 1978: 39). The common forms of this type of ware are tablewares: plates, small bowls and pitchers (Willis 1976:127).
FIGURE 20. Honey-colored ware. a–d, rim sherds; e, f, base sherds.
FIGURE 21. Honey-colored ware. a, b, albarello bases; c, jarro base.
The small amount of honey-colored ware found at Sevilla la Nueva also appears to belong to the tableware category. Of the 55 sherds, 42 are small body sherds having an average thickness of 5.79 mm. There are 5 rim sherds, all belonging to bowls or to an open-mouthed jar or pitcher (Figure 20a-d). Two of the base sherds also appear to belong to wide-bodied vessels like pitchers, (Figure 21b-c), while the remaining three appear to belong smaller, straight-sided vessels, perhaps drug jars (Figure 20e-f; 21a).

El Morro Ware

El Morro ware is a type of utilitarian lead-glazed tableware first described by Hale Smith in 1962 following his excavations at the site of El Morro, San Juan, Puerto Rico (Willis 1976: 128). This ware can be described as having a reddish yellow or brown uniform paste evenly tempered with sand and a thin lead glaze applied to the interior and sometimes the exterior rim area of a vessel. The glaze color may range from a yellow orange to brown to olive green and is usually so thin that the granular texture of the paste pushes through. There were only 13 sherds of this type of ware in the Cotter Collection, representing 0.30% of the ceramics. Unfortunately, none of these were diagnostic of any vessel form. At Nueva Cadiz where El Morro ware amounted to 6.7% of
the ceramic assemblage, shallow flat bowls were the most common form (Willis 1976: 129). Basins with strap handles, bowls and wide mouthed-pitchers of this same ware were reported from the Convento de San Francisco on Hispaniola where it was the single largest category of lead-glazed earthenware (Council 1975: 95).

Unlike the types of maiolica found at Sevilla la Nueva and Honey-colored ware, the presence of El Morro ware is not restricted to the first half of the 16th-century. It occurs straight through to the 18th century contexts of both the Convento de San Francisco and St. Augustine's in Florida. The environs of El Morro in Puerto Rico have been suggested as a possible site of manufacture for this ware, but as this site was not established until 1539, four years after Sevilla la Nueva was abandoned, it is more probable that the specimens found in Jamaica are from an Iberian source. Furthermore, at Sevilla la Nueva the need for these forms of tablewares is met by the similar pieces in other categories of ceramics such as Honey-colored ware, coarse unglazed earthenwares or St. Ann's Bay Ware.

Green-glazed Basin Ware

Eight large sherds from the Cotter Collection have a paste similar to, yet harder than that of maiolica. They are glazed on the interior only, with a thick, dark green, matte finish lead glaze. Goggin termed this type of
lead-glazed earthenware, Green-glazed basin as it is the
distinctive fabric of a large (often 3 feet in diameter) flat
bottomed, steep-sided basin called a lebrillo (Goggin 1968:
201). The thickness of the vessel wall of these large basins
appears to be proportional to their size, often reaching 30
mm (Willis 1976: 124). Body sherds belonging to this type
of ware in the Cotter Collection ranged from 14.8 mm to 23.6
mm in thickness. The lone base sherd was 16 mm thick. There
was one folded type rim sherd that corresponds to Type C from
Nueva Cadiz (Willis 1976: 125, fig. 22-C).

Lebrillos were used primarily as wash basins or in the
kitchen for the mixing of bread dough or sausage (Lister and
Lister 1982: 96). Most of the examples in the Cotter
Collection were recovered from the area in and around
Features 1 and 2, but, one large sherd was recovered from
the Abbey church of St Peter Martyr, located 1 km southeast
of Feature 1 (Figure 1). While the function of those
basins found in the vicinity of Features 1 and 2 is probably
related to the preparation of food or the maintenance of
personal cleanliness, the example from the Abbey may well be
associated with the performance of the sacraments.

Green-glazed basin ware is found throughout the
Caribbean, at Panama la Veija in Panama, and in large
quantities at the 15-16th century Portuguese garrison of
Qsar-es-Seghir in Morocco. There is mention of 2 pilas verde
in the manifest of the Santa Maria Antiqua in the fleet of
Diego Colon in 1509 (Otte 1964: 9).

Green Basin Ware accounted for 9% of the ceramic assemblage at Nueva Cadiz but only .7% at Puerto Real in Area 35, and .18% at Sevilla la Nueva (Willis 1976: 124; McEwan 1983: 66). The small amount of this ware at Sevilla la Nueva and Puerto Real may be due to the fact that these towns are situated in bays, near rivers, where the residents had ample fresh water close at hand to bathe and wash their clothing. European grains did not grow well in the Caribbean, therefore unless a community was affluent enough to import grains for making breads, native cassava bread had to be used as a substitute. The dirth of the basic utensil for mixing bread dough, ie. the green-glazed basins and the presence of native cassava griddles in the assemblage from Feature 1, indicates that flat cassava cakes did replace European breads as a basic starch and also suggests that Arawak women were responsible for food preparation within the Spanish homes.

Feldspar-inlaid Ware

Represented by only one small sherd, Feldspar-inlaid ware comprises .02% of the ceramic vessel assemblage. There are no throw marks in evidence on the dark red, smooth, compact paste of this sherd (Figure 19a). This apparently is typical of feldspar-inlaid ware and leaves question as to whether this well executed ware is wheel thrown, hand-made or
molded (Fairbanks 1966: 432). The outstanding feature of this ceramic ware is the designs fashioned by inlaid fragments of white feldspar which are usually accompanied by other decorative devices such as incised lines and rouletting with dies and stamps - decorative devices not usually associated with Spanish ceramics (Fairbanks 1973: 169). Common early vessel forms of feldspar inlaid ware from other Caribbean sites include tall cylindrical jars with separate lids and small pitchers with matching saucers.

Fairbanks suggests that the origin of this ware in the 16th and 17th centuries was Iberian, even possibly western Spain, as examples of feldspar-inlaid ware occur at the 17th-century Portuguese site of Fort Jesus in Mombasa (Fairbanks: pers com.) as well as throughout the Spanish Caribbean and Mexico from the 16th- through 19th-century contexts. It may have been produced in the New World after the abandonment of Sevilla la Nueva, for fragments of this ware were found in and about the kilns at Panama la Vieja (Fairbanks 1973: 168).

Miscellaneous Glazed European Ceramics

Miscellaneous glazed earthenwares account for 1.07% of the Cotter Collection. Of the 46 sherds, 17 belong to a flat bottomed, single handled pitcher (Figure 22b). The paste of this vessel is like that of the early style olive jars: the course earthenware, amphora-like storage jars which were used
FIGURE 22. Miscellaneous Spanish earthenware. a, handle sherd; b, single handled pitcher.
throughout the Spanish colonial period for transporting liquids. The paste of the early style olive jars varies for light pink to terracotta and has a pale yellow exterior surface. The interior of these storage jars was frequently coated with a green lead glaze. The single handled pitcher from Sevilla la Nueva has a green lead glazed interior and the fragments of glaze on the exterior indicate that at least part of the outer surface was glazed as well (Figure 22a). The connected handle and body fragment (Figure 22a) that is also of olive jar type paste may well belong to this type of pitcher. The handle is triangular in cross section and tapers towards the lower end. The vessel was found near the vaulted well in Feature 1 and is clearly a piece of tableware despite the paste of the vessel being identical to that of Olive Jar ware. Examples of jarros and basin type vessels with this type of paste have been reported from Nueva Cadiz, Concepcion de la Veja and Santo Domingo in the Dominican Republic and Caparra in Puerto Rico (Deagan 1987: 36).

The remaining 29 sherds belonging to this category of ware are undiagnostic lead-glazed sherds of compact grey paste or red paste with a black glaze, probably English in origin.

Unglazed Spanish Earthenware

The 94 sherds of unglazed earthenware included in this category are wheel thrown and well fired. The paste of their
clays is similar to that of other Iberian wares. It is clear for extant manifests of ships sailing to the New World from Spain that vaso de loza (earthenware vessels) were shipped as cargo items (Otte 1964: 493). Vaso de loza from Sevilla la Nueva included such diverse vessels as: spanish water jars, shallow bowls, a stopper, a mortar and other miscellaneous sherds of storage jars.

There are two examples of aquamanils in this category of ceramics, the smallest of which was found at Feature 1; the other had no provenience markings. Aquamanils are tall-necked, rounded, flat-based jars, with or without handles that are commonly used for water storage and have a characteristic drain hole near their base. Normally, these are unglazed to permit evaporation for cooling the liquid contents (Lister and Lister 1976: 11). There would be a small stopper, probably wooden, in the spigot hole which would be removed to serve or decant the liquid contents of the jar.

The small aquamanil (Figure 23) has a hard compact paste similar to that of the early style Olive Jars although slightly pinker. The exterior surface is smooth but not wiped. The vessel thickness is 9 mm and there is evidence of a flat base, although not enough remains to accurately determine its thickness. The spigot hole is 8.4 mm in diameter. The larger aquamanil consists of 24 sherds. The paste is light red and there are throw marks on both the
FIGURE 23. Unglazed Spanish earthenware; small sherds.
exterior and interior surfaces of the sherds. The thickness of the vessel walls is 20 mm near the base; further up the sides, where the vessel began to flare outwards, the thickness is 12.7 mm. The diameter of the spigot hole is 9.1 mm.

There are fragments of three shallow, flat-based bowls (Figure 24b,d). In both cases the paste is pale brown, coarse and sandy in texture. There were between 5.4 and 6.4 mm in thickness. One bowl was found with the Spanish material in the vaulted well of Feature 1, Cotter did not record provenience notations on the others.

The Collection also includes one small fragmented mortar from Feature 1 (Figure 25c). The mortar is made of very fine compact buff colored earthenware. Its base is 2 cm thick with an estimated diameter of 7 cm. Too little remains to accurately determine a full profile for this vessel. Mortars would have been used in the preparation of spices for food and also in the preparation of drugs and powders. Diego Fernandes de Moron, passenger on the Santa Maria Antiqua in 1509, brought a cargo of 400 earthenware vessels, 140 baskets of tiles, 40 green glazed olive jars, 100 mortars and 2 green basins. Obviously, mortars were imported as popular trade items (Otte 1964: 483).

The collection contains 9 horizontal lug type handles of olive jar paste (Figure 24a). These are triangular in cross section and are slipped onto the exterior of the vessel,
FIGURE 24. Unglazed Spanish earthenware. a, lug handle; b–d, shallow bowls.
FIGURE 25. Unglazed Spanish earthenware. a, small cup; b, stopper; c, mortar.
parallel to the "throw marks" on the vessel's interior. These probably belong to an open bowl or casserole.

A large crudely fabricated stopper of very fine soft maiolica type paste is included in the category of unglazed Spanish earthenware (Figure 25b). Traces of slip and red paint are visible on the exterior surface. The diameter of this stopper is somewhat uneven is be 4.5 cm. The height is 3.83 cm. It may have been used to cover a drug jar or open-mouthed jar or pitcher.

A small round-bottom cup or part of an unglazed goblet with the same paste as that of early style olive jar was found in the dump east of Room Two in Feature 1 (Figure 25a).

Although there was one large earthenware handle sherd from the Sugar Mill, the remaining miscellaneous body and rim sherds are from unknown proveniences or from Feature 1.

Early Style Olive Jars

Fragments of early style olive jars accounted for 13.82% of the ceramics in the collection, thus comprising the second largest grouping of Iberian ceramics in the assemblage. The term "olive jar" is the name most commonly used by North American archaeologists to describe the large Spanish coarse earthenware jars with restricted necks that were customary used for shipping and storing liquid substances (Goggin 1960:3). In the most recent publications, however, these
jars are discussed in terms of their Spanish name, *botijas* (James 1985: 42). The tradition of "amphora" shaped storage jars originated in the eastern Mediterranean in the middle Neolithic period and was spread west to the Iberian peninsula by the Greek and Roman colonizers. The practice of employing ceramic storage jars as shipping containers survived in the Spanish culture through the 19th-century. It is not surprising, therefore, that this ware is frequently the most ubiquitous type of ceramic found at Spanish colonial sites that border or are near the major shipping routes (Fairbanks 1973: 143).

The sturdy olive jar was commonly reused as a water jar or storage container for flour, corn and other dry goods. These containers were also used as building materials, either as light weight filling material for roof vaults in many of the Caribbean churches and other structures (Goggin 1960: 6; Fairbanks 1973: 144) or broken into floor or pation fill (Deagan 1987: 32).

It is generally believed that olive jars, especially the early (1500-1580) and middle (1580-1800) style jars, were manufactured in the southern provinces of Spain near the ports of Seville and Cadiz, through which most of the goods destined for the New World were transshipped. Termed *botijas* or *botijuelas* in the documents, these jars were used as containers for wine, vinegar, olive oil, honey, olives, chick peas, capers, lard and tar (Otte 1964: 482-503; Goggin
FIGURE 26, a, b, two diagrams of an Early Style Olive Jar; c, diagram of the construction of an Early Style Olive Jar; d, profile view of a sherd from Zone C of an Early Style Olive Jar.
cases was badly eroded. There is evidence of a red painted inscription on the shoulder of the almost complete olive jar (Figure 27). Numerous olive jar sherds with fragments of red painted lines have been recovered from early Spanish sites in the New World thus suggesting that this may have been a common system of marking these vessels. However, too few complete red painted inscriptions have been found to understand their exact significance (Goggin 1960: 11).

It has been noted that the early style olive jars are comparatively thin, averaging 7 mm in thickness, while the middle style olive jars average 9-12 mm in thickness. 42% of all the olive jar sherds in the collection were measured and while 7 mm was the average thickness, it should be noted that the green glazed sherds were thicker than the unglazed examples and the brown glazed sherds were usually less than 6 mm thick. Additionally, the thickness of the sherds varied greatly depending upon the section or zone of the hemisphere from which the fragment originated as shown in Table 3 on page 90. Figure 26c represents a sherd from Zone C, the central seam, and Figure 27, the most complete olive jar in the collection. Both the sherd and jar measured 11 mm in thickness at the seam, dropping to 6 mm throughout the rest of the hemisphere.

There are 15 rim sherds in the collection representing 11 different vessels (Figure 28). All of which have a thick
FIGURE 27. Early Style Olive Jar. The most complete example from Feature 1 - the castle/fort.
### TABLE 3

SHERD THICKNESS VS LOCATION OF SHERD & TYPE OF GLAZE

ZONE A: The closed ends of the Hemispherical Sections of the Early Style Olive jar.

<table>
<thead>
<tr>
<th>glaze type</th>
<th>mean</th>
<th>standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>unglazed</td>
<td>4.9 mm</td>
<td>1.1 mm</td>
</tr>
<tr>
<td>brown glaze</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>green glaze</td>
<td>5.12 mm</td>
<td>2.47 mm</td>
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</table>

ZONE B: Body Sherds of the Early Style Olive Jar

<table>
<thead>
<tr>
<th>glaze type</th>
<th>mean</th>
<th>standard deviation</th>
<th>sample size</th>
</tr>
</thead>
<tbody>
<tr>
<td>unglazed</td>
<td>6.81 mm</td>
<td>1.24 mm</td>
<td>108</td>
</tr>
<tr>
<td>brown glaze</td>
<td>5.69 mm</td>
<td>.79 mm</td>
<td>45</td>
</tr>
<tr>
<td>green glaze</td>
<td>7.31 mm</td>
<td>1.89 mm</td>
<td>96</td>
</tr>
</tbody>
</table>

ZONE C: Central Seam of the Early Style Olive Jar

two examples: 11 mm thick. FIGURE 26d, FIGURE 27
FIGURE 28. Early Style Olive Jar: rim sherds
emerald green lead glaze on the interior surface. The
diameter of the lip of the four most complete rims ranges
from 3 to 3.5 cm. The height of these necks varies from 2.9
to 3.3 cm. There are 9 strap handle fragments, all of which
have a faceted surface (Figure 29).

If the assumption that the glazed olive jars were used
to transport vinegar or more often wine is correct, one must
conclude that as 61.8% of the sherds are glazed the
residents of the Castle/Fort at Sevilla la Nueva were partial
to this beverage. Since there is only one small fragment of
a crystal goblet, the residents of the castle/fort most
probably used small maiolica escudillas or unglazed
earthenware cups as drinking vessels.

It has been shown that the frequency of glazing on olive
jar sherds was higher in the 16th-century contexts in St.
Augustine than the 18th-century sites (Deagan 1978: 35).
Further to this, Table 4 demonstrates that the frequency of
glazing is higher at the early 16th-century sites that were
abandoned before 1550, thus supporting Deagan's theory that
glazing is less frequent through time at 16th-century
terrestrial sites.

While it has been noted that olive jars were reused as
water jars and for storing all manner of dry condiments and
foods, the presence of 8 burnt olive jars sherds from Sevilla
la Nueva suggests that here they were also used as cooking
vessels.
TABLE 4
OLIVE JAR VARIABILITY BETWEEN SEVILLA LA NUEVA
AND OTHER 16TH-CENTURY SPANISH SITES

<table>
<thead>
<tr>
<th>SITE NAME</th>
<th>DATE OF SETTLEMENT</th>
<th>% GLAZED</th>
<th>% UNGLAZED</th>
<th>% OF TOTAL ASSEMBLAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>JAMAICA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sevilla la Nueva</td>
<td>1509–1534</td>
<td>61.8</td>
<td>38.2</td>
<td>13.82</td>
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<tr>
<td>CUBAGUA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nueva Cadiz *</td>
<td>1498–1545</td>
<td>44</td>
<td>56</td>
<td>38.5</td>
</tr>
<tr>
<td>HAITI</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Puerto Real **</td>
<td>1503–1578</td>
<td>26.5</td>
<td>73.5</td>
<td>9.7</td>
</tr>
<tr>
<td>FLORIDA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>St. Augustine ***</td>
<td>1565–1821</td>
<td>15</td>
<td>75</td>
<td>34.6</td>
</tr>
</tbody>
</table>

* WILLIS 1976: 123
** MCEWAN 1983B: 69
*** DEAGAN 1978: 39
Sugar Molds

During the course of excavating Feature 3, the Sugar Mill, Mr. Cotter recovered some 3000 fragments of sugar molds (Cotter, n.d. 104). 1232 sherds of these molds are in the collection, accounting for 50.12% of the European ceramics or 28.71% of all the ceramics in the collection. The molds are very hard coarse earthenware with coarse, compact, sand tempered paste that is rough on both the interior and exterior surfaces. The molds have a wide orifice, and a long conical body that ends in a basal hole (Lister and Lister 1981: 74). The molds from Sevilla la Nueva were mostly light reddish brown in color (Figure 30).

Conical sugar molds were used during the final stages of sugar production when the syrup extracted from the cane was poured into the mold to crystallize. Any excess liquids would drained out the basal hole. Frequently, the molds were broken in the process of releasing the sugar cones. The broken sherds were either left in piles around the mill, as was the case at Sevilla la Nueva, or reused as filler in building construction (Lister and Lister 1981: 74). These molds were the predominant type of ceramic vessels recovered from the sugar mill. Only a few sherds of Arawak pottery, Iberian earthenware and maiolica were found. It should be noted that these molds have a typically industrial function and are not representative of the foodways of the community. Nonetheless, they are a unique and important type of Iberian
FIGURE 30. Complete sugar mold.
derived ceramic vessel that played an important role in the
development of the major industry of the Indies.

Six different rim types were noted among the 191 rim
sherd fragments (Figure 31: 1-6). Additionally, a study of
the nose fragments showed that the small hole in the bottom
of the cone could either be formed by flaring outwards
or conversely tapered towards the opening. The diameter of
this hole was fairly standard and ranged from 11.8 mm to 13
mm with the majority measuring 12 to 12.5 mm. The length of
this hole was variable and depended upon the thickness of the
actual mold.

At least two different mold shapes were determined. The
almost complete mold (Figure 30) measured 29 cm in length and
had a type 2 rim with fairly straight sides, although the
thickness of the ceramic body becomes greater near the nose
end. The second form, with a type 6 rim, had slightly
bulging sides but was roughly the same overall length. The
ceramic body of this second mold was uniform throughout its
length and closely resembles the complete mold recovered in
more recent archaeological excavations of this feature
(Lopez: 1984 per com ).

The history of sugar in the Antilles is well documented
from the first importation of canes to Hispaniola from the
Canary Islands in 1493 by Columbus (Ratekin 1954: 1). The
existence of sugar was known from classical times but it was
not introduced into Europe much before the 12th century
FIGURE 31. The two different types of sugar mold nose fragments and the six rim variations of the sugar molds found at Sevilla la Nueva.
(Singer 1956: 372). Sugar plantations were introduced throughout to the Mediterranean islands and then to the Atlantic islands by the Spanish colonizers. The various stages of sugar production, including the use of cone shaped molds is illustrated in Figure 32.

Throughout the 16th century the Spanish crown tried to encourage the cultivation of sugar in the Antilles by providing loans for mill machinery and equipment. Exemptions on duty for this equipment and exemptions on export taxes for sugar were regularly granted to the residents of the Antilles (Haring 1919: 755, 757, 766).

Some archaeologists have thought that these vessels may have been made in the New World (Lister and Lister 1981: 74). It appears, however, that they were also being imported from Spain or perhaps Portugal throughout the 16th century, for as late as 1597 Cuban plantation owners were applying for permission to purchase and import 30-40,000 sugar molds from Abero, Portugal, which was a source for superior sugar equipment. The petition was rejected; the planters were granted money and instructed to purchase this equipment via regular channels in Seville (Sanchez 1958: 332-334). If sugar molds had been available in the New World, it would seem improbable that planters would have to go to such great lengths to import such a large bulky and fragile cargo from Spain.
Figure 340.—Sugar-production. In the distance the canes in a sugar-plantation are cut down and loaded on an ass which brings them to the factory. There they are chopped into short pieces and shovelled into baskets which are emptied into the hopper of a water-driven mill. The product runs into a hand-press and the expressed juice is evaporated in cauldrons over fires. It is then ladled into cone-shaped moulds where it crystallizes. Finally the moulds are emptied and the saleable cones displayed. From Stradanus, Nova Reperta, Venice, 1570.

Figure 32. Sixteenth-century Venetian Sugar Factory. (Photo courtesy of the Jamaica Journal)
Miscellaneous English Ceramics

In addition to the large amounts of Spanish and Amerindian ceramics found in association with the four features at Sevilla la Nueva, Cotter found a large quantity of 18th-19th century English ceramic material scattered on the surface of sites, especially around Feature 1. This material accounts for 5.14% of the sherds from the site. Using South's mean ceramic data formula suggests a date of 1807 for this material. Since all these ceramics postdate the Spanish occupation of this site it is beyond the scope of this thesis to discuss this material (see Table 5).

| ENGLISH CERAMICS |

<table>
<thead>
<tr>
<th>Type</th>
<th>Quantity</th>
<th>Dates</th>
<th>Median Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delft ware</td>
<td>17</td>
<td>1620-1720</td>
<td>1670</td>
</tr>
<tr>
<td>Lead Glazed Slipware</td>
<td>9</td>
<td>1670-1795</td>
<td>1733</td>
</tr>
<tr>
<td>Scraffito ware</td>
<td>1</td>
<td>1650-1710</td>
<td>1680</td>
</tr>
<tr>
<td>White Salt-glazed stoneware</td>
<td>2</td>
<td>1740-1775</td>
<td>1758</td>
</tr>
<tr>
<td>Blue Transfer - Pearlware</td>
<td>25</td>
<td>1795-1840</td>
<td>1818</td>
</tr>
<tr>
<td>Blue Transfer - Creamware</td>
<td>1</td>
<td>1765-1815</td>
<td>1790</td>
</tr>
<tr>
<td>Blue Transfer - Whiteware</td>
<td>46</td>
<td>1830-1860</td>
<td>1845</td>
</tr>
<tr>
<td>Creamware</td>
<td>7</td>
<td>1762-1820</td>
<td>1791</td>
</tr>
<tr>
<td>Handpainted ware</td>
<td>8</td>
<td>1780-1820</td>
<td>1800</td>
</tr>
<tr>
<td>Blue Shell Edge - Whiteware</td>
<td>2</td>
<td>1830-1860</td>
<td>1845</td>
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<td>1780-1830</td>
<td>1805</td>
</tr>
<tr>
<td>Flow Blue ware</td>
<td>16</td>
<td>1840-1870</td>
<td>1855</td>
</tr>
<tr>
<td>Stampeware</td>
<td>6</td>
<td>1850-1870</td>
<td>1860</td>
</tr>
<tr>
<td>Mocha Ware</td>
<td>3</td>
<td>1795-1890</td>
<td>1843</td>
</tr>
<tr>
<td>Annular ware</td>
<td>10</td>
<td>1790-1820</td>
<td>1798</td>
</tr>
<tr>
<td>Green Transfer - Whiteware</td>
<td>4</td>
<td>1830-1870</td>
<td>1850</td>
</tr>
<tr>
<td>Green Transfer - Pearlware</td>
<td>1</td>
<td>1795-1840</td>
<td>1818</td>
</tr>
<tr>
<td>Black Transfer - Whiteware</td>
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<td>1850</td>
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<tr>
<td>Black Transfer - Pearlware</td>
<td>1</td>
<td>1795-1840</td>
<td>1818</td>
</tr>
<tr>
<td>Red Transfer - Whiteware</td>
<td>2</td>
<td>1830-1870</td>
<td>1850</td>
</tr>
<tr>
<td>Misc. Whiteware</td>
<td>13</td>
<td>1830-1870</td>
<td>1850</td>
</tr>
<tr>
<td>British Stoneware</td>
<td>40</td>
<td>1690-1775</td>
<td>1733</td>
</tr>
<tr>
<td>Misc. earthenwares</td>
<td>2</td>
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<td>—</td>
</tr>
<tr>
<td>Burnt Glazed ware</td>
<td>1</td>
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<td>—</td>
</tr>
</tbody>
</table>

TOTAL 227 sherds.

*South 1977: 210-212; Price 1979: 31
Aboriginal Ware

42.73% of the collection is aboriginal pottery, classified as Meillac ware (Howard 1950: 136). This is the largest single category of ceramics in the assemblage, almost all of which was found at Features 1 and 2 - the Castle/fort.

The Meillac series of pottery appears to have been developed post A.D. 1200 and is found in southwestern Haiti, southern Cuba and Jamaica, ie, those areas bordering the Windward Passage (Rouse 1982: 48). This ware is of coiled construction, the coils being set and then shaped by anvil and paddle technique versus scraping (Howard 1950: 140). The pottery varies from brick red through dull brown and even black. A dull polish is usually applied to the exterior surfaces of most vessels. Temper is not normally added to the clays, the sand or marl particles that are in evidence appear to have been part of the original clay. The paste of the sherds found in the collection all conform to this type of ware.

The walls of the Meillac ware are usually thin averaging 8 mm (Howard 1950: 141). The shapes of Jamaican vessels are basically limited to boat shaped or round bowls. Both these bowls have symmetrically rounded bottoms and frequently have distinctive shoulders (Figure 33). Regardless if the bowl has a shoulder or not, the sides of these vessels invariably curve inwards towards the rim so that the opening of the bowl is smaller than the greatest diameter of the vessel.
FIGURE 33. Arawak ceramics. a, boat vessel; b, round bowl.
(Howard 1950: 138). This shape is commonly referred to as a carinated bowl.

The rims of Jamaican Meillac ware are normally rounded or slightly rectangular in shape (Figure 34 a-e). The second variant is the filleted rim which has a strip or thin fillet of clay applied along the exterior edge (Figure 34 f-h) or less frequently, along the interior edge (Figure 34-1). Decorated rims are rare but when they are encountered, they are more elaborate than elsewhere in the Caribbean at this time. Decorative devices include: incised designs (Figure 35a), cross hatching (Figure 35 c), and closely spaced parallel incisions placed along the rim to create a seared effect (Figure 35 b,d). There is one example of the more massive rims of the Montego Bay ware which is characterized by oblique parallel lines running down to the shoulder from the rim (Howard 1950 144-145). Finally, there is one sherd that has a perforation just above the appliqued shoulder ridge below the rim (Figure 35f). This type of perforation was primarily utilitarian, as it permitted the bowl to be suspended (Howard 1950: 151).

Excavations at Jamaican Arawak sites have indicated that although the rounded rims are always present in greater amounts, there is a tendency in the later levels of all the Arawak sites around the Jamaica towards an increase in the amount of filleted rims (Lee: 1984 per com). 56.14% of the rims from Sevilla la Nueva are plain, while 36.84% are
FIGURE 34. Arawak ceramics. a-e, rounded rims; f-j, filleted rims.
FIGURE 35. Arawak ceramics. a–e, decorated rim sherds; d, three views of a rim fragment of a hanging bowl.
filleted and 7.02% of them are decorated. All the decorative forms and types of Arawak pottery appear in the collection from Sevilla la Nueva, where it appears that there was not a simplification in forms or degradation of quality in the aboriginal ceramics as has been noted elsewhere during the initial contact period (Willis 1976: 143).

The collection includes three round, plain-rimmed bowls, the two largest having a distinctive shoulder. The two largest bowls have a polished exterior: one has a diameter of 23 cm the other 32 cm (Figure 33b). The bottom of the smaller bowl, with a diameter of 16.5 cm, has been blackened from use over a fire (Figure 38c). There is also a large fragment belonging to a boat-shaped bowl (Figure 33a). This vessel has a filleted rim and an upraised prow at the remaining end. The incised wedge knobs on either side of the prow are the only form of decoration. The presence of smoke patches on the lower regions of this bowl indicates that this vessel was used for cooking.

The assemblage contains one round, spouted bowl that is unique in Jamaica (Lee: 1984 pers com). The three different views in Figure 36 demonstrate that in the inverted position, this bowl resembles a turtle. Obviously not part of the normal aboriginal cooking ware, this bowl may have had some ceremonial function, of course, this is pure speculation.

Figure 37 depicts the well defined neck and spout of an Arawak water bottle. Although no precise chronological
FIGURE 36. Arawak ceramics - three views of the spouted bowl.
FIGURE 37. Arawak ceramics - water jug rim sherd.
sequence has been developed for these bottles, it is thought that the neck and spout became more pronounced during this terminal period (Lee: 1984 pers com). Water bottles were typically well fired on the outside, but due to their small aperture their interior surfaces were poorly finished.

The aboriginal ware assemblage also includes 16 fragments of Arawak cassava griddles or burens. These are flat, circular platters, 30-60 cm in diameter, made of very coarse tempered earthenware. These clay platters are typically suspended above a fire by a few rocks. Jamaican burens usually have a smooth upper surface that at times may have been burnished, and a rough, heavily pitted underside. The griddle fragments range from 12.2 to 22.5 mm in thickness. Owing to the thickness of the burens they are frequently friable due to their low temperature firing (Lee 1980: 2). The single rim sherd had a slightly upturned or bevelled outer edge, which is common to Jamaican burens.

The fact that Cassava burens are found at all Arawak sites in the Caribbean attests to the universal usage of cassava as a dietary staple among these Indians (Lee 1980: 1). The Spanish called cassava "the bread of the Indies". Wheat did not grow well on the Caribbean islands and imported supplies of grain were limited, cassava bread, was somewhat reluctantly adopted into the Spanish diet early in the conquest period (Faerron 1985: 2). Cassava was readily available and it had the advantage over traditional grain
breads, in that it could be stored for months without spoiling (Lee 1980: 2).

The bulk of the Arawak pottery was found in the area of the cellar and in the northern end of Room 2 in the Castle/fort with second major concentration around the well and in the two refuse dumps north of the Feature 1. This indicates that the aboriginal ceramic vessels obviously played an integral role as utilitarian ware in the foodways of the Spanish inhabitants. The presence of cassava burens further reflects the adoption of some of the aboriginal foodways by the Spanish and may also indicate that Arawak women were used as domestic slaves. There is no evidence to suggest that the Spanish who inhabited Feature 1 (a residence obviously belonging to personages of high social standing) took Indian women to be their wives. In St. Augustine documentary and archaeological evidence suggests that those households that included Indian or mestizos (people of mixed blood) within a formal family structure were relegated to the bottom of the social scale (Deagan 1983: 104).

St Ann's Bay Ware

From the time Esquivel effected the conquest and settled Jamaica, the Spanish, under the system of encomienda, had a large aboriginal work force under their command. While native wares were used by the Spanish, it is
evident from the material in the Cotter Collection that native potters were also being put to work to produce a new type of ceramic ware called St Ann's Bay Ware that combined Old World ceramic forms with the New World ceramic technology. Thirty-two sherds and 7 vessels can be identified in this category, termed St/ Ann's Bay Ware. However, the presence of this type of Indo-hispanic ware demonstrates a degree of cultural interaction at the domestic level not exhibited elsewhere at early 16th-century "conquest period" sites in the Caribbean, but present in later 16th-century St. Augustine, Florida (Deagan 1978: 33).

Thirty-five fragments of the St. Ann's Bay ware has sandy pale to yellowish brown paste. This type of ware is hand formed in contrast to the wheel thrown tradition of Spain. Included in this group are 6 base sherds from small bowls that either have a triangular wedge crudely pushed onto the rounded base (Figure 38a) or show evidence where this wedge has been sheared off. Figure 38b depicts the most complete of these bowls, which has a diameter of 11 cm, while two others have a diameter of 16 cm, similar to that of the maiolica escudillas, after which they may have been modeled. There are also two rims/shoulder fragments of small open mouthed jars or pitchers. One of these fragments has the remains of a small round handle that was attached just where the neck meets the shoulder of the jug (Figure 39a). There are also 18 fragments of small round handles.
FIGURE 38. St Ann's Bay ware. a, base of a bowl with an attached foot ring; b, c, bowls.
FIGURE 39. St. Ann's Bay ware. a, pitcher rim; b, pedestal cup.
Two of the remaining four pieces of St. Ann's Bay ware in the Cotter Collection are compete vessels: a small jug and a pedestal cup. The pedestal cup (Figure 39b) is of coil construction and appears to be the same paste as the majority of the Arawak sherds in the collection - dark brown to black with a dull polish on the exterior surface. The interior of the pedestal cup actually is more highly polished than the exterior. It has a solid base. The jug (Figure 40c) is also of coil construction and has the same paste as the cup. Finger indentations are clearly visible on the interior of the 6 mm thick vessel walls. The handle is not completely round but similar in shape and thickness to the other handle fragments of the St. Ann's Bay ware. The base has a flat outer rim and a slightly depressed center. Both these vessels were found in Room one of Feature 1 and were obviously used as Spanish tablewares (Cotter n.d.: 39; White: pers com.).

The two last remaining of the collection that could be classified as St. Ann's Bay Ware are a small cup, decorated with parallel incised lines around the rim (Figure 40a) and a spout for an unknown type of vessel (Figure 40a). While both are decorated in the same manner as Arawak pottery, their non-Indian shapes indicate that they are locally made copies of Spanish wares.
FIGURE 40. St. Ann's Bay ware, a, cup; b, spout; c, jug.
CHAPTER IV
FAUNAL REMAINS FROM SEVILLA LA NUEVA

Although Mr Cotter excavated four major features at Sevilla la Nueva, the fauna available for study were limited to the area around the castle/fort and cellar. In addition, there were many small faunal samples from unmarked proveniences. The analysis of these remains is rudimentary and tentative as there is very little information regarding the context of the material. Mr. Cotter did not use a screen during his excavations and he only mentions bones sporadically through his notes. The data from the castle/fort and cellar of Feature 1 and that from the unmarked proveniences is tabulated in Tables 6, 7, 8, 9, and 10. The following discussion of the diet and food preparation techniques of the Iberian occupants of Feature 1 are limited to over all generalizations, based on findings from the entire site and not from any specific activity area.

Methods

The methods employed in the study of the faunal remains from Sevilla la Nueva are those standard to most zooarchaeological analyses. Identifications were made by Ms Bonnie G. McEwan based on the comparative collection at the Zooarchaeology Laboratory, Florida State Museum in Gainsville, Florida. The following report is based on the paper written by Ms B.G. McEwan in 1982.
The minimum number of individuals (MNI) (White 1953) were determined at the time of identification, as were the bone counts and weights. Biomass estimates were calculated from the bone weights in an attempt to access the relative dietary contribution of the species present. Table 6 summarizes the species present at Sevilla la Nueva.

Results

The Castle/Fort: Feature 1.

Table 7 contains a summary of the animal remains from the Castle/Fort. Ninety-five percent of the total biomass is that of domestic mammals. Pig accounts for 33% of the total biomass; sheep 9% and goat 4%. Over half of the mammalian bone remains from this site were unidentifiable, but they all fall into the medium-large size range which suggests that they may be comprised largely of pig remains as well. Domestic chicken was also identified from the Castle/fort, but it accounts for less than 1% of the total assemblage.

Fish comprises the final 3% of the assemblage from the Castle/fort. Two genera of fish were identifiable from the assemblage: Epinephelus, spp. (grouper) and Lutjanus, spp (snapper). Both of these fish are found in abundance along the north coast of Jamaica, where deep water is within 300 meters of shore.

The Cellar: Feature 1.

The cellar of Feature 1 constitutes a separate grouping of
### TABLE 6

**SPECIES LIST: SEVILLA LA NUEVA**

<table>
<thead>
<tr>
<th>SCIENTIFIC NAME</th>
<th>COMMON NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Homo sapiens</em></td>
<td>human</td>
</tr>
<tr>
<td><em>Canis familiaris</em></td>
<td>domestic dog</td>
</tr>
<tr>
<td><em>Equus caballus</em></td>
<td>domestic horse</td>
</tr>
<tr>
<td><em>Sus scrofa</em></td>
<td>pig</td>
</tr>
<tr>
<td><em>Bos taurus</em></td>
<td>cow</td>
</tr>
<tr>
<td><em>Caprinae</em></td>
<td>sheep/goat</td>
</tr>
<tr>
<td><em>Rattus rattus</em></td>
<td>rat</td>
</tr>
<tr>
<td><em>Gallus gallus</em></td>
<td>domestic chicken</td>
</tr>
<tr>
<td><em>Castor sp.</em></td>
<td>beaver</td>
</tr>
<tr>
<td><em>Epinephelus striatus</em></td>
<td>Nassau grouper</td>
</tr>
<tr>
<td><em>Lutjanus spp.</em></td>
<td>snappers</td>
</tr>
<tr>
<td><em>Sphyraena barracuda</em></td>
<td>barracuda</td>
</tr>
<tr>
<td><em>Pomadasyidae</em></td>
<td>grunts</td>
</tr>
<tr>
<td><em>Coregonus sp.</em></td>
<td>whitefish</td>
</tr>
</tbody>
</table>
### TABLE 7

SUMMARY OF FAUNAL REMAINS FROM THE CASTLE/PORT

<table>
<thead>
<tr>
<th>TAXA</th>
<th>#</th>
<th>MNI</th>
<th>WT</th>
<th>BIOMASS</th>
<th>% of total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>grams</td>
<td>kgs</td>
<td></td>
</tr>
<tr>
<td>Sus scrofa</td>
<td>29</td>
<td>5</td>
<td>177.3</td>
<td>4.3328</td>
<td>.32</td>
</tr>
<tr>
<td>Canis familiaris</td>
<td>1</td>
<td>1</td>
<td>.6</td>
<td>.0349</td>
<td>.00</td>
</tr>
<tr>
<td>Bos taurus</td>
<td>2</td>
<td>2</td>
<td>39.0</td>
<td>1.1295</td>
<td>.08</td>
</tr>
<tr>
<td>Caprinae</td>
<td>1</td>
<td>1</td>
<td>17.1</td>
<td>.5086</td>
<td>.04</td>
</tr>
<tr>
<td>Mammalia, med-lg.</td>
<td>159</td>
<td>0</td>
<td>323.8</td>
<td>6.9744</td>
<td>.51</td>
</tr>
<tr>
<td>Epinephelus spp.</td>
<td>6</td>
<td>2</td>
<td>13.5</td>
<td>.3096</td>
<td>.02</td>
</tr>
<tr>
<td>Lutjanus sp.</td>
<td>1</td>
<td>1</td>
<td>.9</td>
<td>.0252</td>
<td>.00</td>
</tr>
<tr>
<td>Osteichthytes</td>
<td>5</td>
<td>2</td>
<td>9.1</td>
<td>.1956</td>
<td>.01</td>
</tr>
<tr>
<td>Gallus gallus</td>
<td>1</td>
<td>1</td>
<td>2.8</td>
<td>.0521</td>
<td>.00</td>
</tr>
<tr>
<td>Aves</td>
<td>3</td>
<td>1</td>
<td>1.4</td>
<td>.0277</td>
<td>.00</td>
</tr>
</tbody>
</table>

208 16 585.5 13.5904 .98

### TABLE 8

SUMMARY OF FAUNAL REMAINS FROM THE CELLAR: FEATURE 1

<table>
<thead>
<tr>
<th>TAXA</th>
<th>#</th>
<th>MNI</th>
<th>WT</th>
<th>BIOMASS</th>
<th>% of total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>grams</td>
<td>kgs</td>
<td></td>
</tr>
<tr>
<td>Sus scrofa</td>
<td>23</td>
<td>8</td>
<td>222.8</td>
<td>4.9576</td>
<td>.30</td>
</tr>
<tr>
<td>Equus caballus</td>
<td>1</td>
<td>1</td>
<td>7.8</td>
<td>.2714</td>
<td>.02</td>
</tr>
<tr>
<td>Rattus rattus</td>
<td>12</td>
<td>6</td>
<td>2.4</td>
<td>.1057</td>
<td>.01</td>
</tr>
<tr>
<td>Caprinae</td>
<td>4</td>
<td>3</td>
<td>49.6</td>
<td>1.3415</td>
<td>.08</td>
</tr>
<tr>
<td>Mammalia,med.</td>
<td>28</td>
<td>0</td>
<td>97.0</td>
<td>2.0390</td>
<td>.12</td>
</tr>
<tr>
<td>Mammalia,lg.</td>
<td>12</td>
<td>2</td>
<td>175.4</td>
<td>3.7666</td>
<td>.23</td>
</tr>
<tr>
<td>Mammalia,med-lg.</td>
<td>83</td>
<td>0</td>
<td>202.9</td>
<td>4.1501</td>
<td>.25</td>
</tr>
<tr>
<td>Epinephelus striatus</td>
<td>1</td>
<td>1</td>
<td>.5</td>
<td>.0088</td>
<td>.00</td>
</tr>
<tr>
<td>Epinephelus sp.</td>
<td>1</td>
<td>1</td>
<td>.6</td>
<td>.0107</td>
<td>.00</td>
</tr>
<tr>
<td>Sphyraena barracuda</td>
<td>1</td>
<td>1</td>
<td>2.4</td>
<td>.0570</td>
<td>.00</td>
</tr>
<tr>
<td>Osteichthytes</td>
<td>1</td>
<td>0</td>
<td>.8</td>
<td>.0246</td>
<td>.00</td>
</tr>
</tbody>
</table>

167 23 762.2 16.7330 1.01
faunal material as was divided by Cotter himself. The animal remains from the cellar are summarized in Table 8. Similar to the castle assemblage, domestic mammals account for 99.4% of the biomass. Pig is again the most abundant species (305), sheep/goat 8%, horse 2% and rat 1%. Unidentified mammalian remains of the medium-large range account for 60% of the total assemblage. Although there were a few crab claws, which may be intrusive, fish remains were the only other faunal material in the cellar and these amounted to less than 1%. * Epinephelus striatus (Nassau grouper) and unidentifiable grouper and * Sphyraena barracuda (barracuda) were the only species present.

Unmarked Proveniences: Sevilla la Nueva

A considerable amount of the material in the Cotter Collection does not its provenience recorded. The boxes with the materials were merely marked Sevilla la Nueva. Although the variety of contexts represented by these proveniences probably accounts for the high species diversity relative to the cellar of the castle/fort of Feature 1, the outstanding characteristic of this material is, again, the overwhelming predominance of domestic mammals, especially pig (28%). Other domestic mammals include horse (8%), sheep/goat (5%), and cow (4%). 54% of this total assemblage was unidentifiable mammal remains (Table 9).

Fish, which includes: grouper, snapper, barracuda and grunt accounts for less than 1% of the Faunal assemblage.
<table>
<thead>
<tr>
<th>TAXA</th>
<th>#</th>
<th>MNI</th>
<th>WT</th>
<th>BIOMASS</th>
<th>% of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bos taurus</td>
<td>4</td>
<td>3</td>
<td>168.1</td>
<td>3.5175</td>
<td>.04</td>
</tr>
<tr>
<td>Sus scrofa</td>
<td>175</td>
<td>23</td>
<td>1299.2</td>
<td>21.9406</td>
<td>.28</td>
</tr>
<tr>
<td>Equus caballus</td>
<td>8</td>
<td>6</td>
<td>286.4</td>
<td>6.1536</td>
<td>.08</td>
</tr>
<tr>
<td>Canis familiaris</td>
<td>3</td>
<td>1</td>
<td>7.3</td>
<td>.2574</td>
<td>.00</td>
</tr>
<tr>
<td>Castor sp.</td>
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<td>.00</td>
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<tr>
<td>Caprinae</td>
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<td>7</td>
<td>133.9</td>
<td>3.5677</td>
<td>.04</td>
</tr>
<tr>
<td>Artiodactyla</td>
<td>1</td>
<td>1</td>
<td>.8</td>
<td>.0439</td>
<td>.00</td>
</tr>
<tr>
<td>Mammalia, med.</td>
<td>791</td>
<td>5</td>
<td>1706.1</td>
<td>27.6693</td>
<td>.35</td>
</tr>
<tr>
<td>Mammalia, lg.</td>
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<td>1</td>
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<td>10.1731</td>
<td>.13</td>
</tr>
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<td>4.7712</td>
<td>.06</td>
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<tr>
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<td>1</td>
<td>.6</td>
<td>.0195</td>
<td>.00</td>
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<tr>
<td>Epinephelus spp.</td>
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<td>4</td>
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<td>.00</td>
</tr>
<tr>
<td>Sphyraena barracuda</td>
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<td>9.7</td>
<td>.1934</td>
<td>.00</td>
</tr>
<tr>
<td>Lutjanus spp.</td>
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<td>2</td>
<td>2.8</td>
<td>.0727</td>
<td>.00</td>
</tr>
<tr>
<td>Pomadasyidae</td>
<td>1</td>
<td>1</td>
<td>.9</td>
<td>.0220</td>
<td>.00</td>
</tr>
<tr>
<td>Osteichthytes</td>
<td>10</td>
<td>3</td>
<td>7.1</td>
<td>.1741</td>
<td>.00</td>
</tr>
<tr>
<td>Gallus gallus</td>
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<td>3</td>
<td>7.1</td>
<td>.1254</td>
<td>.00</td>
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<tr>
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<td>3</td>
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</tr>
<tr>
<td>Vertebrata</td>
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<td>6.1</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>1158</td>
<td>70</td>
<td>4381.3</td>
<td>79.2876</td>
<td>.98</td>
</tr>
</tbody>
</table>
There are two exotic species in the assemblage from unmarked proveniences: whitefish (Coregonus, spp.), which has a circumpolar distribution in Eurasia and North America. This freshwater species is represented by a single vertebra. The other exotic species in the collection is a single left mandible of a beaver (Castor, spp.). It is not known whether this is a mandible of a North American beaver (C. canadensis) or a European beaver (C. fiber), but it appears rather small for an adult C. canadensis and was therefore thought to belong to a C. fiber. This mandible was in excellent condition relative to the other faunal material in the collection, which suggests that it may not be part of the New Seville assemblage.

Molluscs: Unmarked Provenience, Sevilla la Nueva

Cotter recovered a considerable amount of marine and terrestrial molluscs during the course of his excavations of Sevilla la Nueva. Shell middens are a common feature along the coasts of Jamaica. It is impossible to discern through Cotter's notes if these shells were from a midden that predated the Spanish settlement, or were an integral part of the Spanish faunal collection. The species in the collection are identified in Table 10.

Summary

The three assemblages - castle/fort, cellar and unmarked bones - reveal an overwhelming predominance of domestic
<table>
<thead>
<tr>
<th>NAME</th>
<th>TOTAL</th>
<th>% OF COLLECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MARINE SPECIES</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cittarium pica</td>
<td>102</td>
<td>42.85</td>
</tr>
<tr>
<td>Codakia orbicularis</td>
<td>84</td>
<td>35.29</td>
</tr>
<tr>
<td>Charonia variegata</td>
<td>1</td>
<td>.42</td>
</tr>
<tr>
<td>Stombus gigas</td>
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<td>2.52</td>
</tr>
<tr>
<td>Cassis tuberosa</td>
<td>2</td>
<td>.84</td>
</tr>
<tr>
<td>Strombus misc.</td>
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<td>8.82</td>
</tr>
<tr>
<td>Fasciolaria tulip</td>
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<td>.42</td>
</tr>
<tr>
<td>Nerita perionda</td>
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<td>.42</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>218</td>
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<tr>
<td><strong>TERRESTRIAL SPECIES</strong></td>
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<td>Pleurodonte julia</td>
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<td>4.62</td>
</tr>
<tr>
<td>Pleurodonte oxytene</td>
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<tr>
<td>Pleurodonte carmelta</td>
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<td>.42</td>
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<tr>
<td>Pleurodonte fuscubris</td>
<td>2</td>
<td>.84</td>
</tr>
<tr>
<td>Pleurodonte unident</td>
<td>2</td>
<td>.84</td>
</tr>
<tr>
<td>Drymæus immaculatus</td>
<td>1</td>
<td>.42</td>
</tr>
<tr>
<td>Aperosroma ?</td>
<td>1</td>
<td>.42</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>20</td>
<td>8.40</td>
</tr>
</tbody>
</table>
European mammals - imported foods. The only land mammal native to the Antilles was a type of guinea pig, the cooney. There are no examples of the cooney present in the assemblage. Locally derived fish, molluscs, marine mammals and wild birds were also available as food resources. Of these, fish and molluscs were utilized by the inhabitants of Sevilla la Nueva.

Historical records indicate that the Spaniards in the New World preferred and attempted to maintain Iberian lifeways. This is evident in both the material culture and foodways (Sauer 1966:71). Horses, dogs, pigs, cattle, chicken, sheep and goats were first brought to the New World by Christopher Columbus in 1494. With no American predators or diseases, and left to feed on the rich grasses and fruits of the Antilles, these animals reproduced at unprecedented rates, especially the pigs (Crosby 1972: 75). The reliance, then, of the inhabitants of the castle/fort at Sevilla la Nueva on domestic imported mammals would be expected. Jamaica, like Hispaniola, became a commissariat for the Spanish conquistadors and their invasion of Mexico and Central America (Crosby 1972:77).

The faunal assemblages in the Cotter Collection is highly fragmented. This trait, in combination with the fact that very few of the bones are charred, suggests that most of the meat was boiled rather than roasted. Traditional Iberian food preparation techniques emphasize boiling versus
roasting meats (B. McEwan 1982: 6).

The unreliability of regular supply ships and the limited amount of goods that could be transported from Spain to the New World, undoubtedly served to minimize the availability of certain foodstuffs. Those households or establishments with the greatest socioeconomic status therefore were expected to have greatest access to imported goods. In 16th-century Spain, pork was the most expensive domestic meat, followed by beef, chicken and then mutton and fish (Reitz 1981: 2). The faunal assemblage of the Cotter Collection conforms to this pattern, in that it reflects upper status Iberian food preferences (pork) and traditional preparation techniques (boiling). The almost total absences of fish in the diet is not unexpected, in that fish was a common food for both the Arawaks and Spanish peasantry. Fish abstinence may have been viewed as a form of status reinforcement among the individuals who had access to imported foodstuffs (McEwan 1982: 8). Area 35, an upper status domestic site at Puerto Real, an early 16th century Spanish townsite on the coast of Haiti, exhibited the same pattern of a predominance of domestic mammals and fragmented, unburnt bones as found at Feature 1 in Sevilla la Nueva (McEwan 1982: 7).

With regards to those elements of the faunal remains that may be construed as being Amerindian - 91.58% of these are marine species versus land species. Furthermore it
should be noted that the collection is totally lacking in indigenous terrestrial animals such as cooneys, birds or bats. The Arawak elements of the faunal sample from Sevilla la Nueva appear to be analogous with those from Bengal and Rio Nuevo, two other Arawak sites located on the north coast of Jamaica, in that marine species, both molluscs and fishes predominate. As deep water is located very close to shore at all three sites, bank and reef fishes predominate. The presence of a stone net weight in the Sevilla la Nueva assemblage indicates that the indians may have maintained their traditional fishing practises even after the arrival of the Spanish and may, in fact, have been put to work as fisherman procuring supplies for their conquerors. Greater percentages of terrestrial species are found at the south coast Arawak townsite of White Marl, situated five miles inland. Eighty-eight percent of the sample from Bellevue, an Arawak site located even further inland from White Marl is comprised of terrestrial species demonstrating the heavy reliance and adaptation of the native peoples to the exploitation of locally available resources (Wing 1977:2).

None of the shell material showed any indication of being burnt, suggesting that boiling or steaming was the preferred method for preparation of the shellfish.

An Arawak conch shell scraper was also found on the site, along with a bone handle for a European implement with a round tang (Figure 41).
FIGURE 41. a, shell scraper; b, bone handle.
CHAPTER V
CONCLUSION

In the historic record, the 16th-century town of Sevilla la Nueva was both a port and an administrative center of what became the first predominantly agricultural colony of the Spanish New World. As such, this town could be considered unique in the early contact period as almost every other community was being established in regions rich in mineral wealth or in areas that were of strategic importance as in the case of St. Augustine in Florida. Although Jamaica lacked the lucrative mineral wealth of the other islands, it did have an abundant supply of Indian labor and fertile soil. Agricultural development began to flourish as supplies were needed to support other more promising, colonizing ventures.

The early Spanish cultural development of Jamaica was centered on the small farms and the Royal hacienda at Sevilla la Nueva that was established by Esquivel and later expanded by the second governor, Garay. Under the system of encomienda, these farms were supported by local Indian labor obtained from the surrounding villages. The faunal assemblage reflects the successful introduction of Old World domestic fauna. Historic documents indicate that quantities of locally produced foodstuffs were shipped to the newly established centers in Central America and Cuba. The community appears to have enjoyed some degree of prosperity. Superficially, the diversity of the ceramics and the great
number of richly carved masonry blocks recovered from the castle/fort supports this impression. However, when the ceramic vessels which illustrate the foodways of this community are compared to other contemporary 16th-century sites in the Caribbean, a very different picture of the community's economy emerges.

Traditionally, archaeologists have treated ceramic and faunal remains as two separate entities, but both are integral parts of the foodways system of a culture (McEwan 1983: 99). Their individual roles within this system is dictated by their availability, need, function and social status of their owners. Foodways, in this instant, is a term used by archaeologists to define "the whole interrelated system of food procurement, distribution, preservation, preparation and consumption shared by members of a particular group" (Deetz 1977: 50). Under closer scrutiny the ceramics and faunal remains tell us a great deal more about the foodways of the residents of Sevilla la Nueva, and the castle/fort in particular.

Only one of the four features excavated by Capt. Cotter is a domestic dwelling. Too little remains of the NE Feature to interpret its function, and Cotter made no note of any artifacts coming from this area. The identification of the Sugar Mill is self-evident from the types of artifacts associated with the structural remains: thousands of broken cone molds, bricks, piles of charcoal and masonry arches.
Whereas the presence of the mill has given us a special insight into what was to become the sustaining industry of the Antilles during the 16th century, it does not add to our knowledge of the foodways of the early Spanish settlers.

Features 1 and 2, the castle/fort and associated structure, together represent a substantial domestic dwelling. The nature and diversity of the Iberian and aboriginal ceramics from these features has already been discussed in detail. Their role in the foodways of the community follows.

In the early years of the Spanish expansion and colonization, prior to the establishment of organized agriculture and local industries, the Spanish settlers were dependent upon Spain for most of their needs. Historic records indicate that the settlers preferred and attempted to maintain Iberian lifeways in regards to religion, administrative organization and, more particularly, material culture and diet (Sauer 1966: 71; Foster 1960: 2). The high production costs of some wares such as the tin-enameded maiolicas, and the cost and limited space available to transport fragile commodities such as ceramic vessels from Spain served to limit the distribution of ceramics among the colonists relative to their social and economic positions in the New World (McEwan 1983: 62). Thus, availability of certain types of ceramic vessels to less affluent communities was limited.

The limited availability of refined ceramic vessels,
however, did not negate the need of containers to serve various utilitarian functions within the society. Iberian settlers were, therefore, forced to procure a locally fabricated functional equivalent if a specific vessel was needed but not available. While Jamaica was not rich in mineral resources, it did have a large, ceramic producing aboriginal population, which through encomienda was available to the colonists as forced labor in their fields, towns and homes. As 59% of the ceramics from the castle/fort complex are aboriginal wares, it is evident that the Spanish colonists at Sevilla la Nueva were dependent upon locally fabricated Indian pottery as cooking and tableware vessels in their kitchen assemblage. It appears that the Arawak pottery was adopted wholesale into the Spanish foodways. The appearance of native wares in a utilitarian role also indicates the probable presence of native women serving in the households of this Spanish town. Native women would not necessarily consider the modification of forms for cooking vessels (Deagan 1983: 234).

The presence of native women serving as domestics in the Spanish households of Sevilla la Nueva is further supported by the incorporation of some of the native foodway technology into the material assemblage and diet as is evidenced by the cassava burens, a shell scraper, a stone weight for fish
nets, local reef and deep water fish and both marine and terrestrial molluscs.

The acute shortage of Spanish ceramic vessels does not appear to be limited to utilitarian wares. The appearance of St. Ann's Bay ware indicates that the colonists had to organize native potters to produce vessels suitable to Spanish needs and tastes. The jugs, open mouthed jars with handles, and small cups that were hand made, not wheel thrown, out of clays that were used to make Arawak utilitarian wares, were obviously produced as tablewares for the Spanish community.

The ceramic variability between Sevilla la Nueva and other 16th century Spanish sites in the New World is summarized in Table 11. These data reveal that both Nueva Cadiz and Area 35 from Puerto Real had access to a greater variety of "luxury wares". Both these towns enjoyed a buoyant economy based on rich mineral resources, pearls, or cattle and were located in the mainstream of the Spanish expansion in the Caribbean. In the case of Nueva Cadiz, the residents were not dependent on local aboriginal ceramics for use as utilitarian wares.

Olive jars and storage wares account for the majority of Iberian ware at St. Augustine, followed by coarse earthenwares and then maiolicas or "luxury wares". St.
<table>
<thead>
<tr>
<th>Ceramics Types</th>
<th>Sevilla la Nueva</th>
<th>Nueva Cadiz</th>
<th>Puerto Real</th>
<th>St. Augustine</th>
<th>Florida **</th>
<th>SA26-1(S)</th>
<th>SA34-1(N)</th>
<th>SA26-1(N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maiolica</td>
<td>4.43%</td>
<td>13.34%</td>
<td>18.2%</td>
<td>3.7%</td>
<td>7.6%</td>
<td>5.4%</td>
<td>5.8%</td>
<td>6.4%</td>
</tr>
<tr>
<td></td>
<td>*</td>
<td>6.24</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Olive Jar</td>
<td>13.82</td>
<td>24.68</td>
<td>9.8</td>
<td>35.3</td>
<td>15.7</td>
<td>31.7</td>
<td>41.0</td>
<td>27.6</td>
</tr>
<tr>
<td></td>
<td>*</td>
<td>19.31</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spanish Course</td>
<td>33.89</td>
<td>14.24</td>
<td>10.5</td>
<td>7.7</td>
<td>4.3</td>
<td>6.5</td>
<td>11.0</td>
<td>3.7</td>
</tr>
<tr>
<td>Earthenwares</td>
<td>*</td>
<td>7.28</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other European</td>
<td>5.14</td>
<td>10.80</td>
<td>.7</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>.7</td>
</tr>
<tr>
<td>Wares</td>
<td>*</td>
<td>7.22</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Aboriginal</td>
<td>42.73</td>
<td>37.50</td>
<td>60.9</td>
<td>51.6</td>
<td>69.2</td>
<td>55.9</td>
<td>40.9</td>
<td>62.3</td>
</tr>
<tr>
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<td>59.93</td>
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<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

* Totals for Feature 1/2 less the sugar molds from Feature 3.
** Totals for Puerto Real and St. Augustin's (McEwan 1983: 72).
*** Totals for Nueva Cadiz (Willis 1976: 110,141).
Augustine, a military outpost reliant on government subsidies and an inconsistent supply of goods from Spain, obviously had a reduced level of prosperity and thereby the ceramic assemblages from this community exhibit a reduced diversity in the material stratification than can be predicted for Puerto Real given the nature of the deposits excavated from a high income status household (Area 35) (McEwan 1983: 74).

On the basis of the discovery of the highly decorate stone reliefs found at Feature 1 at Sevilla la Nueva, it is understood that this structure is either the fort or possibly Garay's "palace" - which was the residence that the Spanish Governor lived in while in Jamaica. Based on the material cultures from equivalent structures at other Caribbean port sites, such as Nueva Cadiz or Area 35 from Puerto Real (Table 11), one would expect to find a more prestigious ceramic assemblage associated with this structure, rather than one predominated by coarse utilitarian wares, both Iberian and Arawak. If this assemblage represents what is predicted to be the most affluent in the community, then the residents of this early Spanish Jamaican community did not enjoy a level of prosperity equivalent to townships on other nearby islands, but, instead, appear to have existed in a state of reduced economic resources similar to St. Augustine which forced the community to adopt and develop local ceramic equivalents rather than importing goods from Spain. If the comparison of high status residences from Jamaica to those at
St. Augustine (SA 34-1S and SA 26-1N) is valid, then one might predict that other assemblages from Sevilla la Nueva will also exhibit a markedly reduced economic stratification based on the composition of European wares, as is the case at St. Augustine (McEwan 1983: 71). Intrasite comparisons at Sevilla la Nueva must wait until the completion of further excavations.

The utilitarian nature of the ceramics in the material assemblage of the residents of the castle/fort as represented in the Cotter Collection is demonstrated in Table 12. Cooking wares predominate, followed by industrial ceramics and storage wares.

The pattern of depositional activities can be used in the functional interpretation of historic ruins. Specific areas of a site, or rooms of a building, may reveal differences in artifact frequencies relating to behavioral or industrial activities, such as foodways, that occurred in that space (South 1977: 88). There are two distinct types of depositional activity occurring at the castle/fort at Sevilla la Nueva. The first is floor deposits, which consist of those artifacts which accumulated above the recognized floor or living surface, possibly resulting from the activities which occurred in that particular space. The second is that there are waste pits or dumps, areas which are set aside for the specific purpose of refuse disposal (Boone 1980: 166).

The depositional activities of the residents of the
TABLE 12

QUANTITATIVE SUMMARY OF THE FUNCTIONS OF THE CERAMIC VESSELS
IN THE COTTER COLLECTION

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>NUMBER OF CERAMICS</th>
<th>% IN COLLECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>TABLEWARES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maiolica, Honey-colored ware, El Morro ware, Feldspar Inlaid ware, miscellaneous glazed and unglazed earthenwares, English earthenware</td>
<td>656</td>
<td>15.28%</td>
</tr>
<tr>
<td>COOKING</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aboriginal wares</td>
<td>1797</td>
<td>41.86</td>
</tr>
<tr>
<td>STORAGE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Olive Jar ware and drug jars (mixed)</td>
<td>599</td>
<td>13.95</td>
</tr>
<tr>
<td>HEALTH &amp; CLEANLINESS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Green Basin ware</td>
<td>7</td>
<td>.16</td>
</tr>
<tr>
<td>RELIGIOUS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Green Basin ware</td>
<td>1</td>
<td>.02</td>
</tr>
<tr>
<td>INDUSTRIAL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sugar molds</td>
<td>1232</td>
<td>28.70</td>
</tr>
<tr>
<td>TOTAL</td>
<td>4292</td>
<td>99.97%</td>
</tr>
</tbody>
</table>
castle/fort with regard to tablewares, specifically maiolica and honey-colored ware, are detailed in Figure 42. While it is evident that there were sherds of this ware scattered lightly across both rooms and to the north and east sides of Feature 1, Cotter found the majority of the tablewares in the large waste pit to the west of the north door of Room 1, around the well in Room 1 and in trash pits to the south of room one and the east of Room 2. Cotter noted the he did not find any Arawak material in the latter. The storage vessels, i.e. olive jars (Figure 43), were also concentrated in these areas, although the two most complete jars were found in or near the cellar in Room 2. Additionally, discreet dumps of storage wares are evident along the southern periphery of the castle/fort leading towards Feature 2, and outside the north wall of Room 1. For the most part Arawak remains occur in all the same refuse pits as the Spanish wares (Figure 44). The largest concentration of aboriginal wares, however, occurs in Room 2, around the cellar and just outside the entrance on the north side of this room.

Taking each room separately, it is evident that Room 1 has the largest concentration of tablewares and some storage wares: specifically the majority of the escudillas and plates came from the northern end of this room, as did the olive jar remains and drug jars. Olive jars were used to store wine or oil or perhaps water from the well. This room also contains some Arawak bowl fragments. Thus, one might predict that at
FIGURE 44. Distribution of St Ann's Bay ware and Arawak ceramics at Features 1 and 2, Sevilla la Nueva.
FIGURE 44. Distribution of St Ann's Bay ware and Arawak ceramics at Features 1 and 2, Sevilla la Nueva.
least the northern end of this room was utilized for dining and perhaps storing beverages, spices, and powders. The majority of the aboriginal wares or coking vessels and a significant proportion of the storage wares, however, came from Room 2, indicating that food preparation activities were centered in this area, or perhaps just outside, as Cotter did not mention any large areas of charcoal or evidence suggestive of a hearth inside this structure. The complete olive jars did come from the region of the cellar, where perhaps they were being used to store dry goods, oil or water for cooking.

It has been observed that in the 16th- and 18th-century levels of St. Augustine the Spanish residents tended to dispose of refuse in discreet pits away from their dwellings. These pits are most frequently located in abandoned wells, or near their kitchens. Further it has been noted that faunal remains are mostly concentrated around the wells or to the rear of the house structure (Deagan 1983: 255). Figure 45 details in general the main ceramic and faunal dumps associated with Features 1 and 2. While the main entrance appears to have been the west side of the structure, where there are two doors, the east and southern sides appear to be the back sides of the building. Faunal remains are concentrated around the internal well, cellar and on the north side of Room 1 and Room 2. Ceramic remains are concentrated in discreet pits around the circumference of
FIGURE 45. Distribution of the ceramic and faunal remains at Features 1 and 2, Sevilla la Nueva.
Feature 1, with the heaviest concentrations being in the area of the well, cellar and northwest and north of Room 1. Thus, it would be accurate to assess the trash disposal patterns of the residents of Sevilla la Nueva as being roughly comparable to those observed in the 16th century levels of St. Augustine.

At the time this study was begun, the Cotter Collection comprised the most complete and fully annotated collection of materials from Sevilla la Nueva. Subsequent work has been carried out in these areas between 1983-1987, but, the material recovered from Features 1 and 2 appears to mirror that discussed in this paper (Lopez pers com.: 1984). Thus the interpretation of the ceramic and faunal remains from the castle/fort and its associated feature should remain basically the same. The area surrounding the Sugar Mill has been subject to extensive post-Cotter excavations, which has revealed several other structures of the mill complex. Thus a final statement regarding that Feature, and that of the NE Feature, would be premature based on the limited amount of material recovered by Cotter in these areas.

Acculturation can be thought of as both the processes and results of the contact between two cultures, with the term results implying that changes occur as a result of this contact (Foster 1960: 7). Columbus's momentous voyage of 1492 opened the floodgate of Spanish exploration and colonization of a large part of the New World. Although this
event brought the Spanish culture into direct contact with peoples of completely different cultural traditions, in the Antilles this contact of cultures is distinguished by the marked disparity in power and cultural complexity the Spanish maintained over the primitive Arawak peoples (Foster 1960: 7). Within 20 years of the "Discovery", most of the Caribbean had been conquered and subdued by Spanish force of arms. Historic documentation notes the rapid decline in the native populations of the Antilles due to the cruelty of encomienda and their susceptibility to Old World diseases. This was no less the case in Jamaica, although, the ceramic and faunal remains in the Cotter Collection that are associated with the castle/fort indicate that the local Indian slaves were incorporated into the Spanish households with their culture relatively intact. Arawak women using their own wares and utensils appeared to have performed their tasks in a traditional manner, while at the same time adopting Spanish fauna and possible food preparation techniques. Whereas the availability of imported Iberian goods, with the exception of domestic animals, which were raised on the island in large numbers, appears to have been limited. The Spanish settlers, the dominant group in the cultural exchange occurring at Jamaica, were forced to adopt aboriginal wares, and in some cases foodways, to meet their needs. The resulting society of Sevilla la Nueva was one that was forced to become highly acculturated to its new
environment to a degree hitherto not exhibited at other early
16th-century Caribbean island sites but mirrored later at the
military garrison at St. Augustine, Florida.
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Council, Robert Bruce.

Crosby, Alfred W., Jr.

Cruxent, Jose M., Irving Rouse

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Wynter, Sylvia

APPENDIX I

GAMMA-RAY SPECTRA PEAK ANALYSIS

SAMPLE ONE: HONEY-COLORED WARE. ISABELLA DR

<table>
<thead>
<tr>
<th>CENTROID CHANNEL</th>
<th>PEAK AREA</th>
<th>BASE AREA</th>
<th>LEFT BOUND</th>
<th>RIGHT BOUND</th>
<th>PERCENT ERROR</th>
<th>CENTROID (KEV)</th>
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<tr>
<td>145.90</td>
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<td>55</td>
<td>143</td>
<td>152</td>
<td>59.88</td>
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<td>167.57</td>
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<tr>
<td>200.33</td>
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<td>216.64</td>
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<tr>
<td>807.15</td>
<td>23</td>
<td>30</td>
<td>806</td>
<td>810</td>
<td>81.16</td>
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SAMPLE TWO: HONEY-COLORED WARE. NUEVA CADIZ

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<td>696</td>
<td>701</td>
<td>65.27</td>
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SAMPLE THREE: MAIOLICA SHERD. SEVILLA LA NUEVA

<table>
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<th>CENTROID CHANNEL</th>
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<th>BASE AREA</th>
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The above results from INSTRUMENTAL NEUTRON ACTIVATION ANALYSIS of two samples of Honey-colored ware and one sample of maiolica were collected by Dr. Dennis James, Research Chemist, Center for Trace Characterization, Department of Chemistry, Texas A & M University, College Station, TX.

In notes that accompanied the results, he suggested that there was no visible sign of tin in the samples of honey-colored ware or at least it was 20-100 times less than the amount of tin in the maiolica sample.
TO:  Joseph J. Simmons  
c/o Institute of Nautical Archaeology  
P.O. Drawer AU  
College Station, TX

From: Robyn P. Woodward  
P.O. Box 1717  
Grand Cayman, BWI

I hereby request permission to reprint your maps from the following unpublished manuscript:  
"THE 1981 SURVEY OF SEVILLA LA NUEVA"  
AUTHORS: Denise Lakey; Bruce Thompson; Thomas Oertling; Robyn Woodward.

Fig.1: The map of St. Ann's Bay, Jamaica

These figures will appear without change in the following "The Charles S. Cotter Collection: an Analysis of the Ceramic and Faunal Remains" to be submitted by Robyn P. Woodward, Fall 1987, an Unpublished MA Thesis, for the Department of Anthropology, Texas A&M University.

The undersigned agrees as follows:
1. Full credit will be given Joseph J. Simmons
2. This permission does not allow use of this material in any other edition that the above specified.

Sincerely,
Robyn P. Woodward

The foregoing application is hereby approved, subject to the conditions stated above.

Joseph J. Simmons

Date of Approval: 8/24/87
TO: Bruce F. Thompson  
c/o Institute of Nautical Archaeology  
P.O. Drawer AU  
College Station, TX

From: Robyn P. Woodward  
P.O. Box 1719  
Grand Cayman, BWI

I hereby request permission to reprint your maps from the following unpublished manuscript:
"THE 1981 SURVEY OF SEVILLA LA NUEVA"
AUTHORS: Denise Lacey; Bruce Thompson; Thomas Gerling;  
Robyn Woodward.

Fig. 2: Overall Site Plan, Sevilla la Nueva, 26 July 1981

Fig. 3: The Castle: Sevilla la Nueva, 17 July 1981

Fig. 4: the Sugar Mill, Sevilla la Nueva, 21 July 1981

These figures will appear without change in the following "The Charles S. Cotter Collection: an Analysis of the Ceramic and Faunal Remains" to be submitted by Robyn P. Woodward, Fall 1987, an Unpublished MA Thesis, for the Department of Anthropology, Texas A&M University.

The undersigned agrees as follows:
1. Full credit will be given Bruce F. C. Thompson
2. This permission does not allow use of this material in any other edition that the above specified.

Sincerely,

Robyn P. Woodward

The foregoing application is hereby approved, subject to the conditions stated above.

Bruce Thompson  
5 Aug 1987  
Date of Approval
TO: Thomas Oertling  
c/o Institute of Nautical Archaeology  
P.O. Drawer AU  
College Station, TX  

From: Robyn P. Woodward  
P.O. Box 1719  
Grand Cayman, BWI  

I hereby request permission to reprint your maps from the following unpublished manuscript:  
"THE 1981 SURVEY OF SEVILLA LA NUEVA"  
AUTHORS: Denise Lakey; Bruce Thompson; Thomas Oertling; Robyn Woodward.  

Fig. 8: The Brick Shafts, Feature one.  
Fig. 11: Associated Structure Feature two  

These figures will appear without change in the following "The Charles S. Cotter Collection: an Analysis of the Ceramic and Faunal Remains" to be submitted by Robyn P. Woodward, Fall 1987, an Unpublished MA Thesis, for the Department of Anthropology, Texas A&M University.  

The undersigned agrees as follows:  
1. Full credit will be given Thomas Oertling  
2. This permission does not allow use of this material in any other edition that the above specified.  

Sincerely,  

Robyn P. Woodward  

The foregoing application is hereby approved, subject to the conditions stated above.  

Thomas J. Oertling  

August 4, 1987  
Date of Approval
VITA

Robyn Patricia Woodward was born on May 10, 1954 in Vancouver, British Columbia, Canada, where she attended York House School for 9 years. She attended Santa Catalina School in Monterey California for High School and completed her Canadian Grade 13 at Neuchatel Junior College in Neuchatel, Switzerland in 1973.

In 1977, she graduated with a BA (Honors) in the History of Art from Queen’s University in Kingston, Ontario. During this time she worked as an assistant at the Agnus Etherington Art Gallery. In 1979 she graduated from University College, in Cardiff, Wales with a BSc (Hons) in Conservation of Archaeological Materials. Robyn served as a volunteer conservator with the Institute of Nautical Archaeology in Bodrum, Turkey for one year before starting graduate work at Texas A & M University in Anthropology in the fall of 1980.

After participating in the 1981 Nautical Archaeology Field School in Port Royal, Jamaica in 1981, Robyn was appointed as an INA Research Associate. She returned to Jamaica in January 1982 and worked as the administrator for INA’s three projects on that island for 3 years. She married Phillip P. Janca in 1984. Since 1985, Robyn has been and owner/director of Research Submersibles Ltd, P.O. Box 1719 Grand Cayman, BWI, and more recently, she has been appointed the co-chairman of the Archaeological Group of the Historic Preservation Committee of the National Trust of the Cayman Islands.