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## **An Archaeological Assessment of St Eustatius, Netherlands Antilles**

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AN ARCHAEOLOGICAL ASSESSMENT OF  
ST. EUSTATIUS, NETHERLANDS ANTILLES

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A Thesis

Presented to

The Faculty of the Department of Anthropology

In Partial Fulfillment

Of the Requirements for the Degree of

Master of Arts

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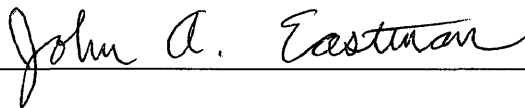
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1996

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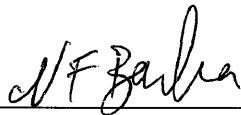
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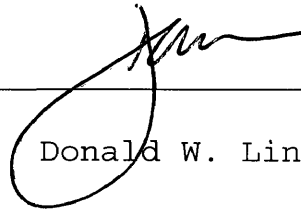
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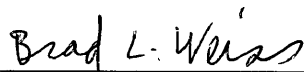
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## ABSTRACT

During the seventeenth and eighteenth centuries, the small Caribbean island of St. Eustatius thrived as an important trade center for the European colonies in the New World. Today the island is dotted with the ruins of plantations, forts, warehouses and other vestiges of human occupation, that have been studied by archaeologists for the last two decades. The present study summarizes information from dozens of archaeological reports and scholarly papers and assesses the current state of knowledge about the 288 documented archaeological sites on the island. This will provide planners and scholars with a concise document that will facilitate the coordination of research, preservation, and development goals in the coming years.

AN ARCHAEOLOGICAL ASSESSMENT OF  
ST. EUSTATIUS, NETHERLANDS ANTILLES



**CHAPTER 1:**  
**INTRODUCTION**

St. Eustatius, a small island in the northeastern Caribbean, was an important link in the trade network between Europe, Africa, and the New World colonies during the seventeenth and eighteenth centuries. Its landscape is still dotted with the ruins of scores of plantations, sugar mills, warehouses, and military structures from that era. Since 1981, participants in the College of William and Mary Archaeological Research Program, directed by Professor Norman Barka, have documented over 280 archaeological sites on St. Eustatius and conducted an architectural inventory of the structures in its main town, Oranjestad. This research program has generated a diverse corpus of data, including field notes, technical reports, scholarly papers, and master's theses. That body of work, along with both scholarly and popular studies by other researchers, forms the database for the current project.

begin  
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The objectives of this study are to summarize and assess

the current state of archaeological and historical research on St. Eustatius and to offer recommendations for future study and protection of the island's archaeological heritage. The distillation of basic information on each of St. Eustatius' known archaeological sites in one document provides two important benefits: archaeologists gain a summary of previous archaeological research to help set future research goals, and developers and government planners receive the information they need to accomplish their goals without damaging irreplaceable archaeological sites.

This introductory chapter will first provide background information on the physical environment of St. Eustatius. Basic concepts of archaeological research are explained, and the problem of integrating economic development with historic preservation is discussed. Finally, a brief overview of historic preservation activities on St. Eustatius is presented.

#### ENVIRONMENT AND PHYSIOGRAPHY

Located in the Leeward Islands, St. Eustatius, or Statia as it is commonly known, is part of the Netherlands Antilles, along with St. Maarten, Saba, Curacao, and Bonaire. St.

Eustatius is a volcanic island with a land surface of 21 square kilometers (km), measuring approximately 8 km northwest by southeast and almost 4 km southwest by northeast at its widest point. It is located in the Lesser Antilles between Saba and St. Kitts (Figure 1). The southern third of the island is dominated by a conical volcano known as the "Quill" which rises to just over 600 meters (m) above sea level (Figure 2). The northern portion consists of a series of steep rocky hills known as the Little Mountains or Northern Hills. The central third of the island and the lower slopes of the Quill form a moderately rolling plain known as the Cultivation Plain, lying at about 50 m above sea level (Josselin de Jong 1947:19). A few rocky coves ring the shoreline, and long narrow beach strands are found at both the leeward and windward ends of the Cultivation Plain. Steep cliffs surround most of the island, except at the northeastern and northwestern edges of the Cultivation Plain where the plain slopes gradually down to the beach. The town of Oranjestad overlooks the leeward anchorages of Oranje Bay and Gallows Bay as well as the leeward beach, which is known as Lower Town.

The soils of the Cultivation Plain and the lower slopes

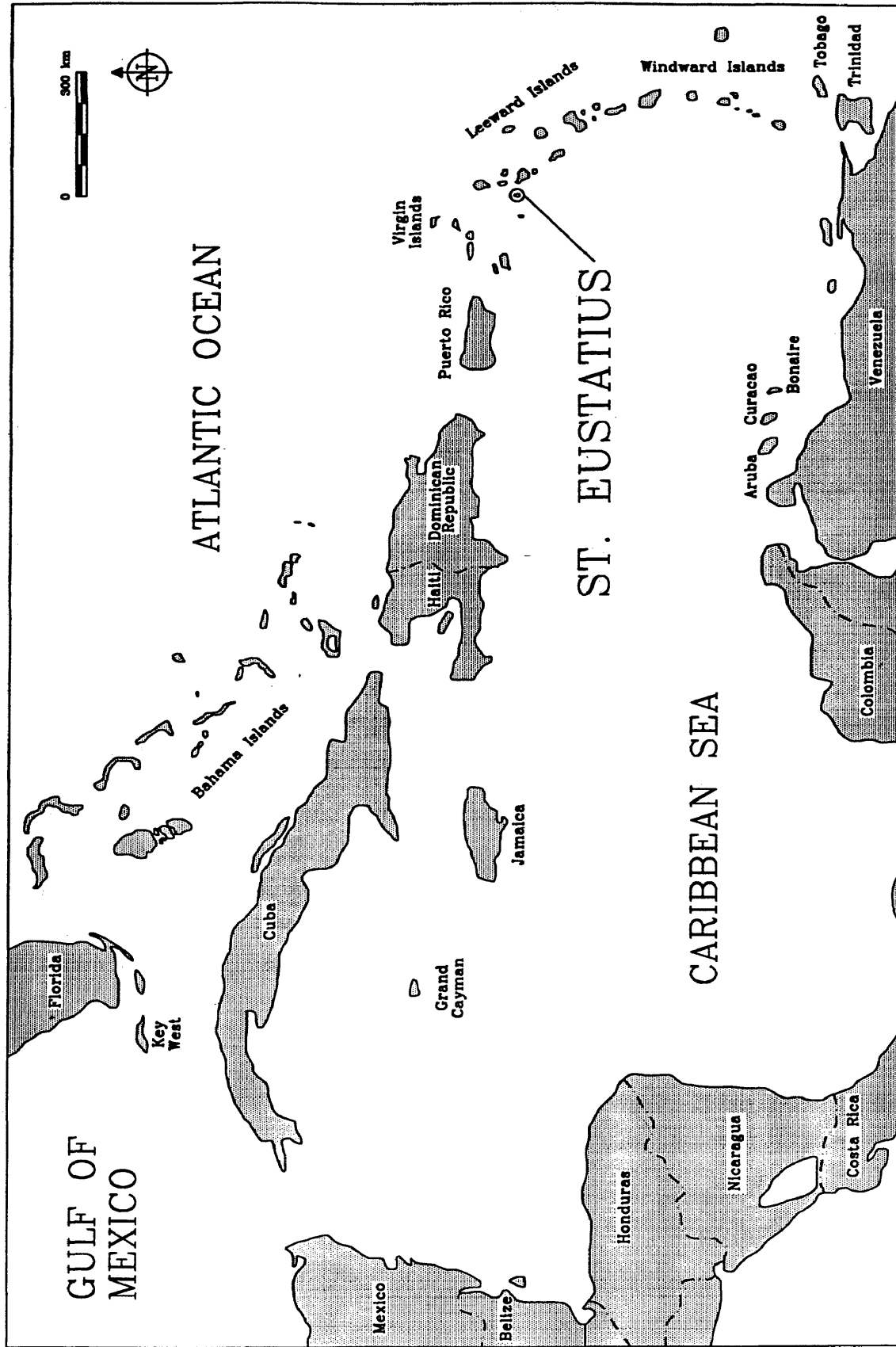


Figure 1. Location of St. Eustatius

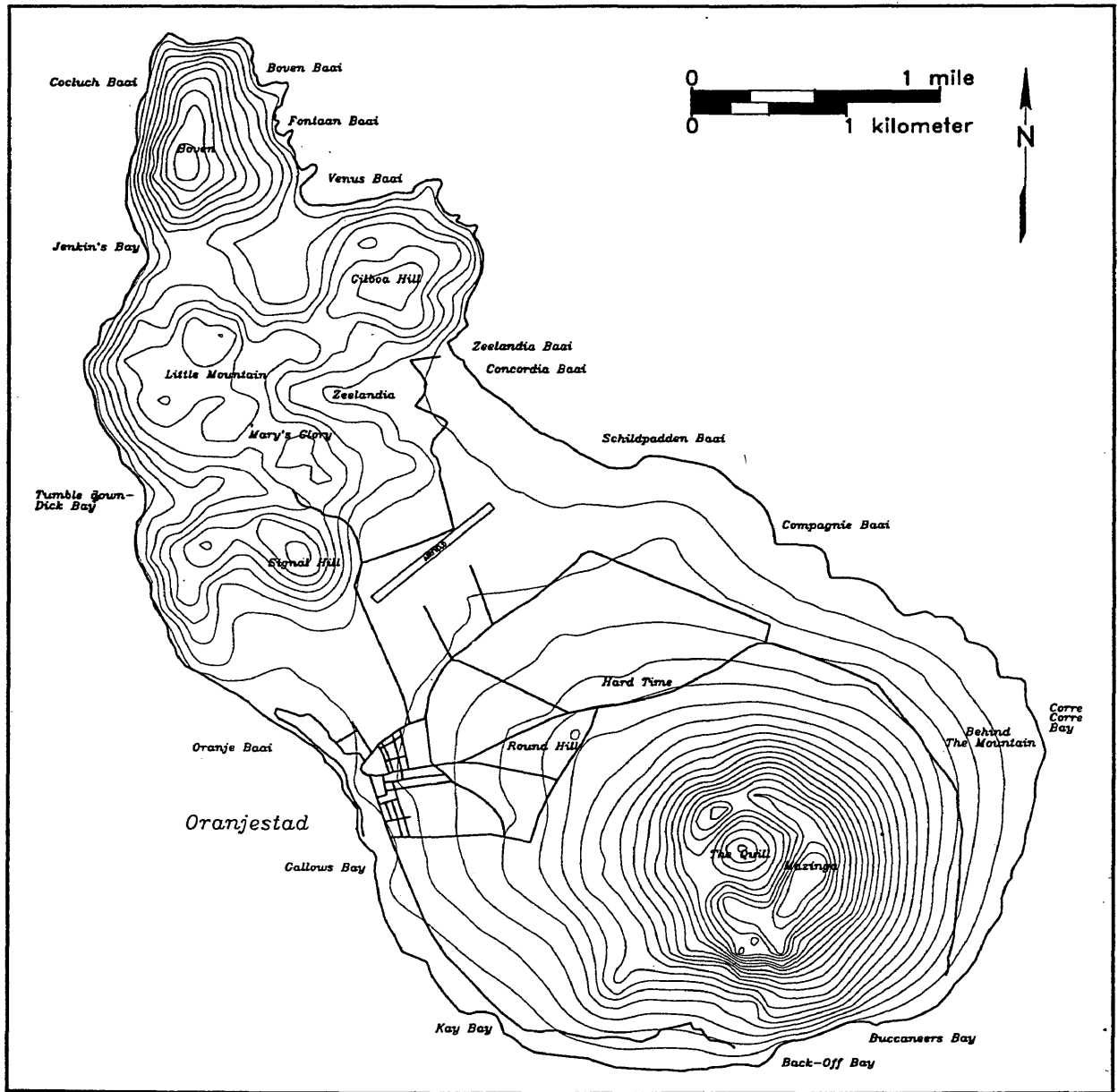


Figure 2.

Topographical Map of St. Eustatius

of the Quill and northern hills consist of a generous layer of sandy loam overlaying volcanic subsoil, providing fertile ground for agriculture (Josselin de Jong 1947:19). These areas were cultivated from the earliest colonial period into the early twentieth century, but have generally lain fallow for the past few decades. A persistent problem confronting agricultural development has been the lack of fresh groundwater. Other than a few modern wells located in the Cultivation Plain, the main source of fresh water is rainwater collected in plaster-coated cisterns. The rainy season generally occurs between June and December, but periodic droughts lasting over one year are not uncommon. The island has been buffeted by hurricanes several times in its recorded history, occasionally sustaining severe damage to buildings, crops, and commerce (Hartog 1976).

In prehistoric times, the Cultivation Plain was probably covered with a deciduous seasonal/dry evergreen forest that was cleared within the first decades of colonial settlement (Versteeg and Schinkel 1992:23). The present vegetation on St. Eustatius is characterized as Thorny Woodland, consisting mainly of acacia, cactus and manchineel, with Evergreen Seasonal Forest on the upper slopes of the Quill (Haviser

1981c). Sheltered within the crater of the Quill is a small but lush tropical rainforest (Hartog 1976:37). This environment provided the setting for a rich human history that will be presented in Chapter 2.

#### ARCHAEOLOGICAL RESOURCE MANAGEMENT

An archaeological site is the physical remains of past human activity, including structural remains, associated artifact scatters, and subsurface deposits. Archaeologists are trained to interpret the relationship between soils and artifacts to gain knowledge of the past. Because no two sites are exactly alike, each archaeological site should be viewed as a finite, nonrenewable resource. Once disturbed, the spatial relationships between the artifacts and their soil matrix that provide archaeologists with clues to the past are lost forever. Site integrity can be compromised by natural processes such as erosion, organic decay, and animal or insect burrowing, as well as cultural actions including vandalism, relic collecting, and development activities.

Even archaeological excavation can be viewed as destructive (Klein 1994; Beudet and Elie 1991:5), although the painstaking recordation of artifacts and their context

during excavation minimizes the adverse effect of the process. The photographs, notes, artifacts, scale drawings, and environmental data collected during excavation are preserved for analysis and interpretation. Results of analysis should be disseminated in a format that is accessible to both the scholarly community and the interested public. Artifacts and associated documentation should be curated to archival standards, ensuring their availability for future study or museum display. If a site cannot be preserved *in situ*, its information content must be preserved for future scholars armed with techniques and questions unforeseen by the present day excavator.

Archaeology is but one of many avenues to understanding past lifeways and cultural processes. Oral history and the critical appraisal of documentary sources are other tools that can be used to recover the past. History, memory, and archaeology are the primary building blocks for constructing a comprehensive realization of the past (Lowenthal 1985).

An important problem to be considered in preserving the physical remains of St. Eustatius' past lies in the nature of the land itself. Most of the desirable tracts of land that are under development pressure today are those most heavily



utilized in the past and which, therefore, have the highest concentrations of archaeological resources. This leads to a direct point of conflict between those who wish to preserve the physical vestiges of the past and those who favor economic development. A society requires economic development to sustain itself, but should attempt to protect its cultural heritage at the same time. Preservation of the past and development for the future can be successfully integrated if planners and developers have sufficient information about the location and significance of archaeological resources to assess the effects of their programs early in the planning process. The present study provides that information for St. Eustatius.

#### IDENTIFICATION AND EVALUATION OF ARCHAEOLOGICAL SITES

The identification of archaeological sites begins with historical research and consultation with local residents to determine what is already known about the study area. Once this baseline is established, field survey can document known sites and begin to identify those that have been lost to memory. Field survey is conducted either by visual inspection of the ground surface or, in areas where the buildup of ground

cover may have obscured the surface, through the excavation of shovel tests at regular intervals. Once an archaeological site has been identified, its physical boundaries must be established and the integrity of its archaeological deposits evaluated by limited subsurface testing.

The relationship of an archaeological site to the history and cultural development of the area should be established in order to place it within a regional historical context. Meaningful interpretation of an archaeological site requires an understanding of the events and trends that shaped the human history of the area at the local, regional, and global scales. For example, a sugar plantation site may be viewed as representing the daily lives of the individuals who lived and worked there, or as a microcosm of the global sugar production industry that spanned hundreds of years. The use of historical contexts facilitates the assessment of a large number of seemingly diverse sites, allowing them to be grouped and studied in terms of their common elements and the historical milieu that produced them. By analyzing sites within historical and thematic clusters, management and research goals can be achieved in a consistent fashion.

Once a site's location, dimensions, and cultural-

historical affiliation have been established, it must be evaluated to determine if it is worthy of preservation and study. Many factors need to be considered in assessing site significance, so it is helpful to have standardized, objective criteria to guide this stage of the preservation process. While the Netherlands Antilles has not developed a standard procedure for evaluating cultural resources, the National Register of Historic Places (NRHP) guidelines used in the United States provide a useful and productive model for assessing significance. The NRHP criteria for evaluation state that:

The quality of significance in...history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

- A) That are associated with events that have made a significant contribution to the broad patterns of our history; or
- B) That are associated with the lives of persons significant in our past; or
- C) That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a

significant and distinguishable entity whose components may lack individual distinction; or

D) That have yielded, or may yield, information important in prehistory or history. (U.S. Department of the Interior 1991:2)

Implicit in these guidelines is the importance of the historic context in evaluating archaeological data and in defining the relevant research questions pertaining to a certain period or place. Where the historical record is sparse, nonexistent, or biased, the cumulative knowledge gained through archaeology may provide the context for understanding subsequent discoveries. Criterion D of the NRHP guidelines emphasizes the significance of sites that may provide important information, such as prehistoric sites and those associated with poorly-documented social groups. History has traditionally emphasized the lives and activities of the dominant class at the expense of women and various social and ethnic groups. Increasingly, specialized thematic studies are ameliorating past omissions by focusing on particular minority groups (Orser & Fagan 1995:202). Virtually nothing has been written about the daily lives of slaves on St. Eustatius, especially in proportion to their

vast numbers and the vital contributions they made in the history of the island, the region, and the world economy. Since most of St. Eustatius' citizens today are descendants of slaves, the study of slavery might prove to be an important issue in future studies of the island's archaeological sites.

Archaeologists need to communicate the relevance of their work and interpretations to the descendants of the past societies they study. Archaeology and historic preservation can foster a sense of collective pride and a confirmation of group identity, thus encouraging community revitalization through increased awareness of a shared past (Lowenthal 1985). Historical ruins on the cultural landscape can evoke a sense of the passage of time, acting in concert with oral tradition to remind people of their cultural heritage. Conversations with many island residents indicated that the historical ruins are indeed important to them for this very reason, as anchors to their heritage.

#### HISTORIC PRESERVATION ON ST. EUSTATIUS

The contribution that archaeology can make to the general quality of life requires that sites be actively studied and interpreted for the public benefit. Two local preservation

groups, the St. Eustatius Historical Foundation (SEHF) and the St. Eustatius Monuments Board (SEMB), have taken great strides toward conserving their rich heritage. The St. Eustatius Historical Museum, administered by the SEHF, features award-winning exhibits on important aspects of the island's history, featuring many artifacts recovered through archaeology. The museum is housed in a restored eighteenth-century merchant's home in Oranjestad, and is a good example of the adaptive reuse of historic structures. A walking tour booklet developed by the SEHF highlights the island's historic structures and ruins for the benefit of tourists. A proposal has been developed for a living history museum similar to Colonial Williamsburg and Plimouth Plantation, but that project is still in the planning stages (Richter n.d.).

Ishmael Berkel of the Monuments Board has commemorated a more recent era by opening a museum that recreates the 1920s home and store of his parents, originally located in the heart of Oranjestad.

Both the Historical Foundation and the Monuments Board have given immeasurable assistance over the years to visiting archaeologists and other researchers. They also serve in an advisory role to the Island Government when planned

undertakings threaten historic properties (McAlester 1994). St. Eustatius is fortunate to have these two volunteer groups serving as intermediaries between citizens, the government, and the international scholarly community.

Finally, the government-sponsored Historic Core program has funded the renovation of several dilapidated historic structures in the center of Oranjestad, which are then leased for businesses or residences. Through these various programs, St. Eustatius is seeking to capitalize on its history and cultural resources while retaining its slow-paced lifestyle and avoiding the pitfalls of unrestricted tourism.

If the local and international efforts to study and interpret the island's archaeology are to succeed, some form of legal protection for archaeological sites is necessary. The laws of the Netherlands Antilles prohibit uncontrolled excavation, wanton destruction, and the use of metal detectors on sites on government land (Bennet-Merkman 1994). The Federal Monument Law, enacted in 1989, directs each of the individual island governments in the Netherlands Antilles to develop an Island Monument Law specifying which sites and structures are to be protected (van der Hoeven 1993). To date, the Island Government of St. Eustatius has not enacted

such an ordinance. Consultations between local preservation groups and government officials must continue toward the goal of developing and enacting an historic preservation planning process. The present study provides the basic information needed to develop a comprehensive historic preservation plan for St. Eustatius. Copies will be distributed to government officials, the Historical Foundation, the Monuments Board, and other interested parties.

It has been over ten years since the first summary of St. Eustatius' archaeological record was prepared (Barka 1985), and much new information has been recovered during this period. The body of this archaeological assessment includes five major components. Chapter 2 presents a historical context for interpreting the archaeological record. Chapter 3 reviews the archaeological investigations that have been conducted on the island over the years. Chapter 4 provides a brief description of each site, drawn from published and unpublished sources. Chapter 5 summarizes the findings of previous studies, relating documented archaeological sites to appropriate anthropological and historical research domains. Chapter 6 outlines a program to integrate historic preservation and land management planning on St. Eustatius.



Provisional significance ratings for each site are listed in Appendix A, but it is expected that these ratings will be modified as the additional research recommended in Chapter 5 is conducted. With the most current information concentrated in one document, the study and preservation of St. Eustatius' rich and varied archaeological resources will be greatly facilitated in the years to come.

## CHAPTER 2:

### THE HUMAN HISTORY OF ST. EUSTATIUS

#### PREHISTORIC OCCUPATION

The Caribbean islands were first peopled by migrants from the Orinoco River region of South America (Rouse 1992). Prevailing winds and the outflow of the Orinoco River probably carried coastal fishing peoples northward past Tobago to the southern end of the Antillean chain (see Figure 1). The islands stretch in a continuous line of sight from there to Cuba, fostering the exchange of people, goods, and ideas. Archaeological, linguistic, and ethnohistorical evidence indicates a series of migrations from the mainland resulting in the continuous blending of cultural traits between established islanders and newly-arrived immigrants (Haviser 1981c).

A lithic-based paleoindian culture has been identified in the western Caribbean, but the earliest evidence of human activity in the region of St. Eustatius is for the Ortoiroid

(Archaic) Culture, beginning around 2000 B.C. (Rouse 1992:30-33). As time passed, the population grew while exploiting an increasingly diverse subsistence base of conuco agriculture and marine resources. Early occupation levels contain tools of shell and flaked or ground stone, with a gradual introduction of undecorated ceramics (Haviser 1981c).

The Saladoid Phase of migrations, characterized by zoned, crosshatched, and incised ceramics, began in the Orinoco Basin of Venezuela early in the first millennium B.C., with the first wave of migrants reaching St. Eustatius between 0-300 A.D. (Rouse 1992:31-34). A slightly later phase of Saladoid development is marked by the introduction of red-on-white painted ceramics between 300 and 500 A.D. It was long thought that St. Eustatius was abandoned shortly after 500 A.D., but recent research indicates that these ceramics were still being used on the island as late as 800 A.D. (Haviser 1981c; Versteeg and Schinkel 1992:71). In addition to pottery, the prehistoric inhabitants of St. Eustatius used a wide array of tools and decorative items made from stone, bone, shell, and coral (Josselin de Jong 1947; Versteeg & Schinkel 1992). Extensive dietary evidence, indicating a reliance on marine resources, birds, and small mammals, has been recovered from

middens at the Golden Rock site (Versteeg and Schinkel 1992) and the Godet site (Figueredo 1975).

Primary settlements were usually located close to an expanse of flat arable land, with thatched roof houses of post-in-ground construction grouped together in small villages. A high conical roof is postulated for these structures, based on ethnographic analogy and the patterns of postholes and postmolds identified through archaeological excavation. Other structures would have included a men's house, work huts, and drying racks. Burials were generally flexed, with a few simple grave goods and no obvious orientation, other than a tendency to avoid a westerly orientation (Versteeg and Schinkel 1992:183).

Beyond the main settlements, satellite sites included procurement stations located near necessary resources and observation posts situated on the windward coasts to spot approaching vessels (Haviser 1981c). The latter were necessitated by conflicts between established communities and more aggressive bands of immigrants, known in historic times as the Caribs, who often raided and decimated settlements. St. Eustatius was abandoned sometime after 800 A.D. for reasons that remain unclear.

## THE EARLY COLONIAL PERIOD: 1636-1816

The first permanent settlement of St. Eustatius began in 1636. The next 180 years would witness the development of the region by the major European imperial states, the growth of plantation agriculture, the rise and fall of the busiest free trade port in the New World, and the construction of fortifications to protect the island's riches. Traded back and forth between the European powers throughout this period, St. Eustatius would finally revert to Dutch control for good in 1816, just as the economic and political conditions that had brought fame and fortune to the island changed forever. This early colonial period was the most illustrious time in the island's history, when most of the sites documented in the present study were built and used by planters, merchants, and slaves.

Spanish accounts mention St. Eustatius as early as 1493, but the Spanish never attempted to colonize it due to its small size, lack of precious metals, and unreliable water supply. Spain was the undisputed master of the Caribbean for most of the sixteenth century, except for occasional raids by privateers employed by Spain's many enemies (Rogozinski 1992:57). Meanwhile, the merchants of the Netherlands were

Spanish  
colonization  
1493

building a trade empire by means of innovative shipping strategies, consolidation of capital, and advantageous geographic position. In the late sixteenth century the Netherlands began a struggle for independence from Spain that would continue intermittently for much of the next hundred years. As Spanish power began to wane, Dutch commercial activity expanded to include the lucrative West African slave trade and illegal commerce with isolated Caribbean colonial settlements (Rogozinski 1992:58-59).

Seeking a new supply of salt for the Baltic herring industry, Dutch merchants mined the salt pans of St. Martin and the Venezuelan coastal islands in the late sixteenth and early seventeenth century, despite the threat of Spanish interception (Goslinga 1971:116-118; Israel 1989:61-63). As they became more familiar with the local waters, Dutch vessels would hide in remote bays, alternately preying upon Spanish shipping and trading much-needed goods to Iberian settlers in return for local products (Rogozinski 1992:58-59). These sporadic privateering activities were suspended during a twelve-year truce from 1609 to 1621. When the truce ended, Dutch activity in the Caribbean was formally renewed under the auspices of the West India Company (WIC).

As Spanish power waned through the 1620s, most of the seafaring powers of Europe established colonies on the small Caribbean islands that had been ignored by the Spanish (Rogozinski 1992:57-58). These fledgling colonies were not only chronically undersupplied but were also prevented by monopolistic laws from trading with other countries. The Dutch, however, operating under the principal of *mare liberum*, carried on trade wherever they could make a profit (Tuchman 1988:40). In addition, WIC vessels continued their harassment of Spanish shipping, sometimes selling the prize cargoes at greatly reduced rates. The Dutch capture of the Spanish treasure fleet in 1628 spelled the end of Spanish dominion and a new era of opportunity for the ambitious countries of northern Europe.

The WIC needed reliable bases where ships could stockpile trade goods and replenish stores. St. Eustatius had been explored by various parties in the early decades of the seventeenth century, but was not settled until 1636. A contingent of 50 Dutchmen under a patent from the WIC chose the island because it was uninhabited, contained an anchorage protected from trade winds, and was well-situated for trade with the English settlements at Antigua and St. Kitts (Attema

1976:56-8; van den Bor 1981:40). The Dutch settlers reinforced the remains of a small earthen fort left by a French exploring party in 1629, christening it Fort Oranje. They quickly set to work building homes and planting crops. While its primary function was that of a trading post, the colony's charter included a mandate to produce tobacco, and the first crop was delivered to the market at Flushing in 1638 (Goslinga 1971:263; Hartog 1976:21). Throughout the colonial era, cash crops constituted the bulk of St. Eustatius' agricultural output, but food usually had to be imported. St. Eustatius, like most WIC outposts, was more important as a trade port than as a center of agriculture or settlement (Delle 1989:180; Rogozinski 1992:59).

By the 1640s, most of the major European nations had established colonies in the Caribbean, initially growing tobacco and cotton but shifting to sugar production during the third quarter of the seventeenth century (Goslinga 1971; Israel 1989). In his book *Sweetness and Power*, anthropologist Sidney Mintz (1985) documents the increasing importance of sugar in European society after 1650, noting its transformation from a luxury to a necessity and its growing role in international politics. The shift to sugar production



was spearheaded by Dutch planters who had learned the trade during the WIC's ill-fated occupation of the Portuguese sugar plantations in Brazil. By the early eighteenth century, sugar cultivation claimed most of the arable land on many islands. Most of these small plantations consisted of a small house for the overseer and his family, a well or water cistern, and simple slave quarters. A few boasted their own sugar mill and processing facilities, features which have been well documented on St. Eustatius (France 1984; Barka 1987; Delle 1989). In many cases, a cistern and a rubble-pile house ruin are all that remains to mark these small farms. While sugar plantations covered most of the cultivable land on St. Eustatius, the island's output was only a fraction of the huge volume traded through its port (Hartog 1976:37).

The plantation economy was fueled by slave labor that was supplied by the WIC through a central depot in Curacao. By the early eighteenth century, the center of trade had shifted to St. Eustatius due to its more central location in the Caribbean colonial sphere. A slave house was built within the walls of the Waterfort on the Lower Town beach in 1726 to quarantine slaves in transit to market (Hartog 1976:50). Slave quarters were extremely spartan, as indicated by a

contemporary visitor's sketch of slave huts at one of the island's plantations (Attema 1976: Plate 12). This sketch suggests the rather impermanent construction of these huts, a factor that would cause their archaeological footprint to be extremely faint. As in most Caribbean colonies, slaves outnumbered whites from the earliest census onward, often by as much as two to one (van den Bor 1981). The institution of slavery was a fact of life on St. Eustatius from the first settlement until its abolition in 1863, and traffic in slaves played an important role in the growth of the Lower Town commercial district throughout the second half of the eighteenth century.

St. Eustatius was fortified from its first settlement, but was never able to defend itself against invaders. During the European wars of the seventeenth and eighteenth centuries, the island was repeatedly invaded, conquered, and used as a pawn in treaty negotiations. From the Anglo-Dutch War in 1665 to the end of the Napoleonic Wars in 1816, the island changed hands between England, France, and the Netherlands no less than twenty-one times. Accounts left by the invaders usually noted the rundown condition of the fortifications, including rotting gun carriages, lack of ammunition, and crumbling

fortifications. As defensive goals and strategies evolved, the later conquerors often renovated the extant batteries and built new ones at vulnerable points on the coast (Howard 1991). As a consequence of these repeated renovations, it is often difficult to determine if a particular battery was built by the English, French, or Dutch.

The first series of invasions, between 1665 and 1713, were conducted by privateers whose chief interest was plunder and destruction (Kandle 1985:33-43). Following the 1713 Treaty of Utrecht, the Netherlands and its colonies entered a period of neutrality and relative peace, during which St. Eustatius reached its pinnacle as a trading center and earned the nickname "The Golden Rock" (Hartog 1976:35-48). The later phase of conquests, from 1780 to 1816, suggest efforts by organized military forces to exploit the island's position as a trade center (Howard 1991).

Most white residents lived in the island's only town, Oranjestad, at the top of the cliffs overlooking Oranje Bay. This area is known to this day as Upper Town, while the former trade zone on the beach at the base of the cliffs was known as Lower Town. The vast majority of houses were constructed of wood upon mortared stone foundations, and thus were regularly

destroyed by the hurricanes that battered the island every few years. A 1986 architectural survey of Oranjestad identified only one surviving eighteenth-century wooden house (Sanders 1988). It is likely, however, that many modern houses in Oranjestad are constructed on eighteenth-century foundations. A few substantial houses were built entirely of stone or brick by wealthy merchants and government officials, such as the Doncker House in Oranjestad and Gov. Johannes de Graaff's country house at Concordia. Several churches and government buildings in Upper Town were also built of stone or brick.

Throughout its history, St. Eustatius functioned as a neutral trade port under WIC authority, and its preeminence in the world trade of the late eighteenth century has been amply chronicled by many scholars (Jameson 1903; Hartog 1976; Dethlefsen 1982; Kandle 1985). As the British-French rivalry intensified through the mid-eighteenth century and mercantile laws increasingly restricted intercolonial trade, St. Eustatius came to be known as the place where merchants could buy or sell almost anything. Raw materials from every colony in the New World were traded from the hundreds of warehouses that lined the Lower Town beach, along with manufactured goods from virtually every country in Europe. Smuggling was widely

and innovatively practiced in order to bypass what were perceived as oppressive mercantile laws (Schmidt and Mrozowski 1988). Correspondence between colonial merchants and their agents in St. Eustatius often contained explicit instructions for skirting mercantile laws, including falsification of ships' papers, mislabelling of cargoes, use of hidden compartments, and numerous other strategies for evading colonial tax authorities (Crane 1992; Kandle 1985).

Trade activities were centered on the narrow strip of beach facing the anchorage in Oranje Bay. Warehouses, cooperages, ship repair facilities, and a slave depot were located there by the mid-eighteenth century. A stone seawall was built a short distance offshore, facilitating the unloading of materials and the allowing the construction of warehouses in the protected shallow water (Dethlefsen 1982:80; Dethlefsen et. al. 1982:13). Rapid development between 1740 and 1780 elevated St. Eustatius to a position as the leading marketplace of the Caribbean, with over 600 stores and warehouses crowding the narrow beach of Lower Town. As many as 3000 ships called at St. Eustatius' port each year, and merchants from every nation in Europe conducted business there (Hartog 1976:33-48). By maintaining a neutral position in the

numerous European wars of the period, the Dutch ensured their role as the world's merchants.

St. Eustatius was an important link in the triangle trade between North America, Africa, and the Caribbean. Throughout the eighteenth century, the merchants of Newport and other American coastal cities grew fabulously wealthy bringing molasses from the Caribbean to New England where it was processed into rum, which was then traded for African slaves to be sold in Caribbean ports (Crane 1992: 11-46). As relations between England and the North American colonies deteriorated in the 1760s, St. Eustatius became an important source of exotic foreign goods and, increasingly, armaments for the American colonists.

England viewed this affront to its mercantile control over its American colonies with growing consternation, questioning whether the Dutch were in fact maintaining their neutrality. In 1777, under Governor Johannes de Graaff's administration, St. Eustatius became the first foreign nation to fire a salute to a vessel under the United States flag (Hartog 1976:65-76; Tuchman 1988). The open manner in which St. Eustatius' merchants flaunted their illegal commerce with America severely strained King George III's willingness to

respect Dutch free trade principles. Finally, in 1781, Admiral George Rodney was dispatched to St. Eustatius to capture the island and cut off the rebels' source of armaments and supplies. Rodney's force spent three months plundering the island's riches, deporting the Jewish merchant population, and stripping the island of its wealth (Hartog 1976:84-95; van den Bor 1981:50-51). The closing of St. Eustatius' port threw the Caribbean trade network into chaos for several months before a French force recaptured the island and eventually returned it to Dutch control (Hartog 1976:95-98).

Merchants quickly returned to the Golden Rock, and by 1790, trade had surpassed previous levels. The island's population peaked at this time, with 5140 slaves and 2984 whites and freedmen (Hartog 1976:52). During the period 1781-1816, St. Eustatius passed back and forth between Dutch, French, and English control eight times. As many as 500 warehouses remained in use at Lower Town during the first quarter of the nineteenth century, but the island's Golden Era of prominence and prosperity was about to end.

The Netherlands and its colonies, including St. Eustatius, came under the control of Napoleonic France in 1795, and French economic policies wreaked havoc with St.

Eustatius' trade activity. Particularly damaging was the imposition of taxes on what had traditionally been a free trade port (Hartog 1976:101-102). The island reverted to Dutch control for good at the conclusion of the Napoleonic Wars in 1816, by which time trade patterns in the Caribbean had shifted elsewhere. The United States had built up its manufacturing base and its direct trade relationships with Europe, and no longer needed to smuggle goods through a third party. Perhaps most importantly, the center of the world's sugar industry had shifted from the Caribbean region to Indonesia and other centers (Delle 1989; van den Bor 1981:49-55). The population of St. Eustatius had dwindled from over 8000 in 1790 to 2668 by 1818 (Hartog 1976:102). St. Eustatius sank into a period of economic stagnation and isolation after 1816 that would last well into the second half of the twentieth century.

#### ECONOMIC COLLAPSE AND ISOLATION: 1816-1960

By the second quarter of the nineteenth century, the heyday of the Caribbean sugar economy was over. St. Eustatius was especially hard hit, and most of the small marginal plantations were abandoned. Historical maps show that 88



small plantations dotted St. Eustatius in 1742, but only ten remained a century later (Delle 1989). The Netherlands was the last European nation to cling to the institution of slavery, a fact that was not lost on the slaves. A mid-nineteenth-century slave revolt had to be suppressed with force of arms and great loss of life (Hartog 1976:52). When news of abolition reached the island in 1863, the slaves walked off the farms and took up residence in abandoned houses in Oranjestad, declining to perform farm work even for wages. Former slaves raised food crops in small garden plots, a practice reflected in today's communal gardens.

As abandoned plantations and warehouses decayed, many were torn down to obtain construction materials for new homes or to sell the building stones to neighboring islands (Hartog 1976:116; van den Bor 1981:55). Many plantation structures and shoreline warehouses were reduced to foundation outlines during this period.

Throughout the nineteenth and early twentieth centuries, the region sank into desperate poverty. Many residents migrated to other Caribbean islands for employment, particularly to oil refining jobs on Curacao during the 1930s. Several attempts to revive agricultural production early in

the twentieth century failed for a variety of reasons, including an insufficient infrastructure, small labor force, and poor planning (van den Bor 1981:57-60). Commercial agriculture was limited to small crops of cotton, sisal, and indigo grown for export (Hartog 1976:128-131). The ruins of a sisal factory built south of Oranjestad between 1905 and 1928 stand in mute testimony to this last failed attempt to revive commercial agriculture. Local subsistence level farming has been the only agricultural activity on the island for most of the twentieth century.

In a 1938 effort to stimulate agriculture, the government bought Concordia plantation and built 14 small houses with 2.5 hectares of land each, but the project failed due to the isolation of the settlement and general lack of enthusiasm among the populace (Hartog 1976:132-133; van den Bor 1981:66).

By 1948, with emigration for employment at a peak, St. Eustatius' population had dropped to 921, its lowest point since the seventeenth century (Hartog 1976:127).

#### RENEWAL AND MODERNIZATION SINCE 1960

The Dutch government has long been the main employer and generally the sole benefactor of the population. Since the

early 1960s, many efforts have been made to modernize the island's infrastructure. Main roads were paved in the late 1960s, an electrical generating station was built in 1965, and the airstrip built in 1946 was upgraded to handle small commercial aircraft. A suburban housing tract, begun in the Jeems district in 1963, proved more popular than the earlier project at Concordia and has gradually spread across the central Cultivation Plain toward Fair Play. The pier in Gallows Bay has been enlarged several times in a continuing effort to improve cargo loading capacity and access to tourist cruise ships (Hartog 1976:143-157).

Since the late 1970s, Statia Terminals Co. has built dozens of oil storage tanks in a remote corner of the Northern Hills (see Figure 2). While Statia Terminals has brought much-needed foreign currency to the island, its social and environmental impacts have not yet been gauged. Jobs promised to residents have gone to foreigners who bring alien values and influences to this isolated and tightly-knit society. Although the company's agreement with the island government stipulates that archaeological sites and historic structures on Terminal property are to be protected, some have been severely impacted or completely destroyed. In recent years,

Statia Terminals' management has grown somewhat more sensitive to the importance of the sites and structures on its land, but not all employees share that sentiment. Few heavy equipment operators on the island are trained to recognize and avoid archaeological sites, which can be irreparably destroyed in a matter of minutes.

In recent years, an emerging national consciousness and heightened ethnic pride has led to renewed interest in protecting resources associated with the island's colonial "Golden Era." The activities of the Historical Foundation and the Monuments Board have contributed to this increased sense of pride among island residents about their rich history. In addition, the knowledge gained through the William and Mary Archaeological Research Program has attracted attention in archaeological and historic preservation circles in the United States, benefitting the island through increased heritage tourism.

St. Eustatius has a rich historical and cultural legacy preserved in its ruins and archaeological sites, but these are gradually being impacted by development. Several American retirees have built homes on the Cultivation Plain and the lower slopes of the Quill in recent years, but most are

sensitive to the significance of the former plantations on their property and avoid disturbing the ruins. Large lots and skyrocketing land values help to minimize the damage to historical sites on these privately-owned tracts, but no laws exist to protect sites on private land (Bennet-Merkman 1994). Sites on government land have some legal protection, but with no mandated historic preservation process to guide or restrict developers, important sites are sometimes bulldozed before any review or study has been conducted. A persistent misconception is that only above-ground monumental structures such as church ruins and forts are important, but a vast amount of information lies buried beneath virtually every house lot on the island. The potential for future research at these residential sites will be discussed in greater depth in Chapter 5.

Today, the greatest single threat to the historical heritage of St. Eustatius is a government-sponsored airport expansion plan that would require the demolition of Concordia, the former estate of colonial governor Johannes de Graaff. Arguably the most famous man in the island's history, de Graaff was governor during the American Revolution and ordered the first salute by a foreign nation to a vessel flying the

American flag (Tuchman 1988). The government claims that the present house was built in the 1930s on old foundations (Woodley 1994), but it is obviously much older than the nearby houses that remain from the 1938 development. A recent study of the property established that not only is the house of eighteenth-century construction, but its features and outbuildings correspond with de Graaff's 1814 probate inventory (Barka 1996:44-47). Concordia is not only the estate of the island's most illustrious historical figure, it is one of the best-preserved plantation complexes on the island. Potential avenues of research and conservation for this important and irreplaceable historic site are discussed further in Chapters 5 and 6.

#### SUMMARY

This brief overview has identified several central themes that have shaped the history of St. Eustatius. Following several millennia of prehistoric occupation, the island was abandoned for several centuries prior to the arrival of Europeans. The development of the colony through the seventeenth and eighteenth centuries saw the growth of large-scale plantation agriculture, slavery, international commerce,

warfare and defense, the social and spiritual lives of thousands of European colonists, and the many adaptations they made to life in a new environment. Many structures were repeatedly razed by invaders in the seventeenth century. After a "Golden Era" of large-scale international trade and incredible prosperity, the island slipped into profound poverty and utter obscurity through the nineteenth and much of the twentieth century, with sporadic efforts at economic revival. In recent decades, St. Eustatius has begun to regain its position in the regional economy and to capitalize on its historical legacy. The next chapter will describe the efforts that have been undertaken to study and document the material remains of the island's rich history.

**CHAPTER 3:**  
**ARCHAEOLOGICAL RESEARCH ON ST. EUSTATIUS**

Archaeological research has been carried out on St. Eustatius for over seventy years, recovering a wealth of information on both prehistoric and historic occupations. The first archaeological investigations on St. Eustatius were conducted in 1923 by J.P.B. Josselin de Jong. After searching the island for evidence of prehistoric sites, he excavated at seven locations on the Cultivation Plain (Josselin de Jong 1947:23). Three of his sites were in the vicinity of Golden Rock plantation (Areas A, B, and C), three near Concordia plantation (Areas D, E, and F), and Area G near the southwest border of Schotsenhoek plantation (Figure 3). In addition to these sites on the Cultivation Plain, de Jong noted what appeared to be plain prehistoric pottery near the Pisga plantation ruins in the northern hills. However, the sherds were subsequently determined to be a locally-made ware dating to the nineteenth century (Haviser 1981c).



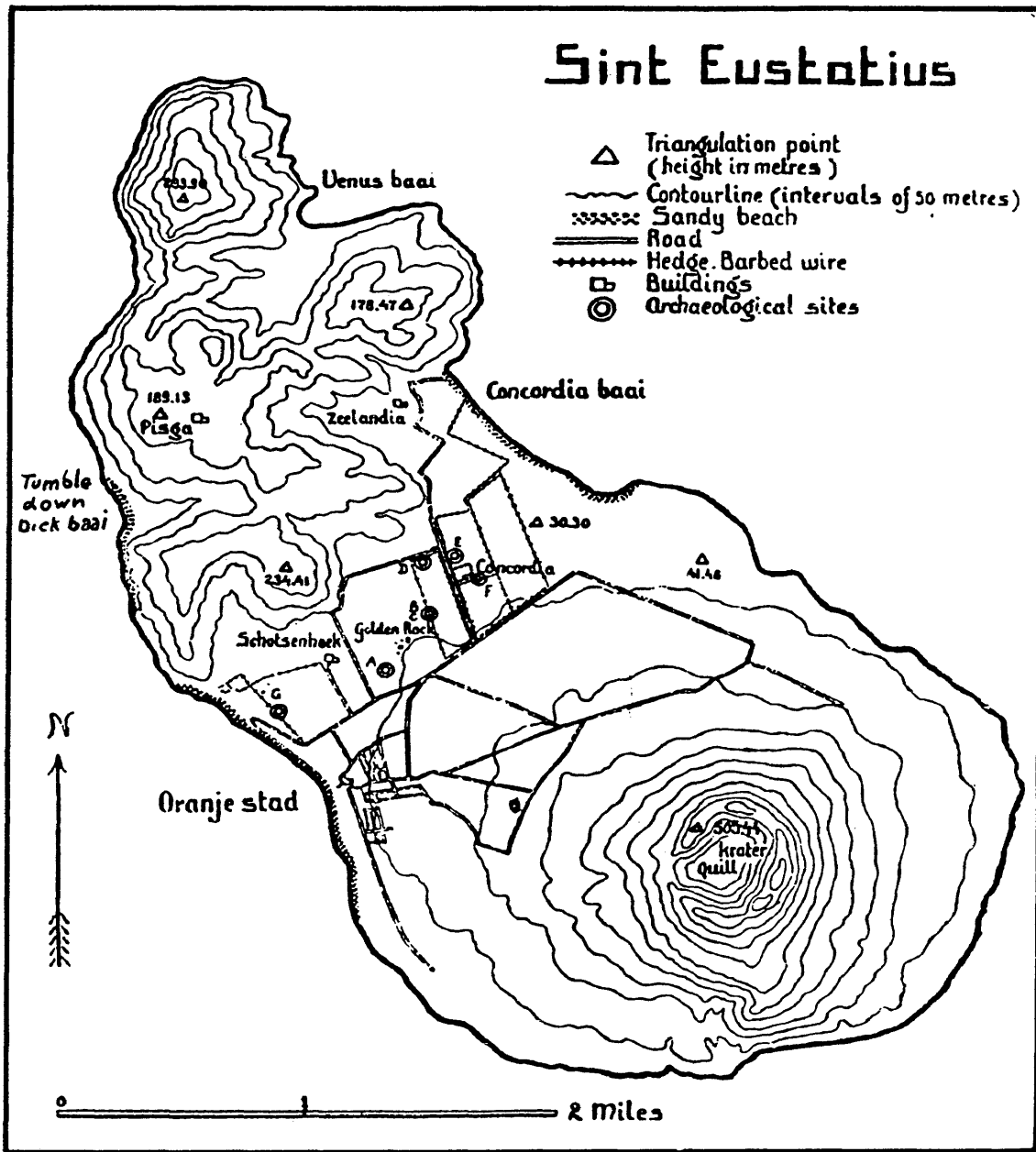


Figure 3.

Prehistoric sites located by de Jong in 1923 (de Jong 1947)

De Jong's report was purely descriptive, making no effort to place his findings within a cultural-temporal context. Later scholars with access to comparative collections of known age were able to assign de Jong's finds to the Saladoid Phase, ca. 300 A.D. (Rouse 1964; Haviser 1981c).

The study of prehistoric archaeology on St. Eustatius was dormant until 1975. In that year, Albert Figueredo surveyed the leeward (western) coast of the Cultivation Plain in search of Saladoid sites that exhibited evidence of marine resource exploitation. Figueredo hoped to challenge the prevailing perception that Saladoid peoples subsisted mainly on agriculture (Figueredo 1975). He located one such site at the western edge of the Cultivation Plain where a drainage named Billy's Gut empties onto the beach. Figueredo excavated a 1 x 2 m trench into a midden deposit 120 cm deep, recovering early-to-middle Saladoid Phase incised ceramics, tools of stone and shell, and abundant remains of marine fauna. Inexplicably, his excavation trench was never backfilled, remaining open in June 1994 when it was inspected by the author.

Another excavation of a prehistoric site was reportedly conducted in 1975 by Egbert H. J. Boestra, but no report of

the work was ever written (Haviser 1981c). A bibliographic search failed to identify any reference to work on St. Eustatius by Boestra.

Research on the island's historic sites began in 1972, when four students from the Netherlands visited the island to study its historic monuments and architecture. One student wrote a conservation plan, and another published a monograph combining historical narrative with descriptions, maps, and photographs of many ruins (Attema 1976). Attema's book is noteworthy for its incorporation of Dutch archival information, drawing on sources which are not available in English. Attema's study was not intended as a complete inventory, concentrating instead primarily on fortifications and exceptional architectural edifices. Plantations and pre-historic sites are not mentioned, and it does not appear that a systematic survey was conducted.

In 1976, a Caribbean-wide survey of historic sites was undertaken by the Island Resources Foundation (IRF). Funded by the U.S. National Trust for Historic Preservation, the American Revolution Bicentennial Committee, and the IRF, this survey was designed to record intact buildings that could be restored for adaptive reuse or as tourist attractions. The

only sites mentioned on St. Eustatius are the Dutch Reformed Church, the Jewish Synagogue, Fort Oranje, and "small-scale residential buildings [and] military...batteries scattered around the island" (Towle 1978:42-43). Like Attema's book, this report makes no mention of the island's many rural plantation sites, noting erroneously that "very little... remains of such structures, perhaps reflective of the fact that the island's wealth and former prosperity were the result of its trading and commercial activities" (Towle 1978:43). The IRF report's preoccupation with restoration and its general ignorance of archaeology's potential is illustrated in a comment on the ruins of Lower Town: "...enough of the structures survive for restoration to be feasible. In their present ruined state, they only serve as a reminder of the island's economic decline" (Towle 1978:42). A less pessimistic perspective might at least recognize the value of ruins in imbuing the cultural landscape with a sense of antiquity and in uniting people in their shared history (c.f. Lowenthal 1985). Despite this report's limitations, it took the "first steps...toward providing a 'protective' inventory" of St. Eustatius' cultural resources (Towle 1978:30).

St. Eustatius' research potential came to the attention

of historical archaeologists from the College of William and Mary in the late 1970s (Dethlefsen 1982; Dethlefsen *et al.* 1979; 1982). The College of William and Mary Archaeological Field School was organized by Professor Norman Barka, who brought graduate and undergraduate students to the island from 1981 to 1994. During the first field season, graduate assistant Jay Haviser of Southern Florida University directed a systematic island-wide pedestrian survey, locating 108 prehistoric and historic sites (Haviser 1981; 1981b). Due to the often heavy vegetation, five meter spacing was employed for the pedestrian transects. Most of de Jong's sites were relocated, and some previously undocumented prehistoric sites were discovered (Haviser 1981c) (Figure 4). In addition, many historic sites depicted on colonial-era and modern topographic maps were surveyed. Each site was sketch-mapped, its main features noted, and in some cases a sample of surface artifacts was collected. Survey notes are on file at the St. Eustatius Historical Association Museum in Oranjestad and at the Department of Anthropology of the College of William and Mary in Williamsburg, Virginia (Haviser 1981, 1981b).

While Haviser directed the field survey, Barka focused his efforts on the warehouse ruins on Lower Town beach. The

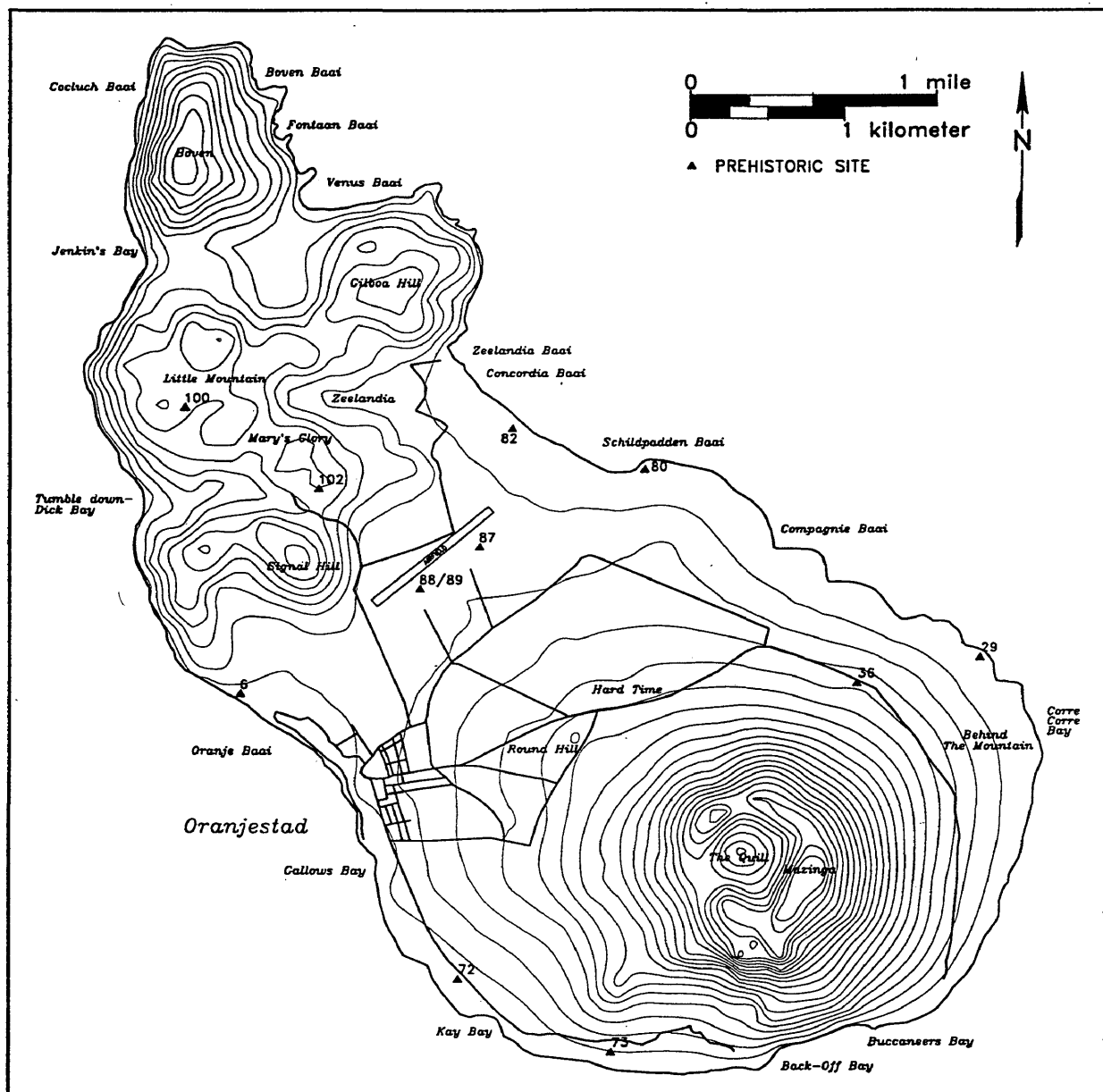


Figure 4.  
Prehistoric Sites

survey identified 135 visible above-ground ruins, including standing structures, foundations, cisterns, and walls (Figure 5). Most appear to be related to the late eighteenth-century commercial trade context (Barka 1985:11-28; Kandle 1985). These sites, SE301-SE435, were listed and described by Barka (1985). Test excavations were conducted at four of the Lower Town sites by Patricia Kandle, providing baseline data on site chronology and material culture. In addition to the archaeological work, ethnohistorical studies were pursued by Dr. Eric Ayisi (1992), and Chester Kulesa (1989), demonstrating the value of oral history in studying St. Eustatius' people and history. The first five field seasons included the excavation and documentation of the following sites: an eighteenth-century trash pit in Oranjestad (Barka 1985:54-55), Crook's Castle sugar mill (Hinote 1981), Fort de Windt (Kochan 1982), English Quarter plantation (France 1984), the Jewish Synagogue ruins (Barka 1988), the Doncker House (Barka 1985:51-54), and four warehouse sites in Lower Town (Kandle 1985). Subsequent field seasons have featured major excavations at Princess Estate (Barka 1987), the Government Guest House (Barka 1986, 1989, 1990; Kulesa 1985), Battery Concordia (Barka 1991), and Concordia

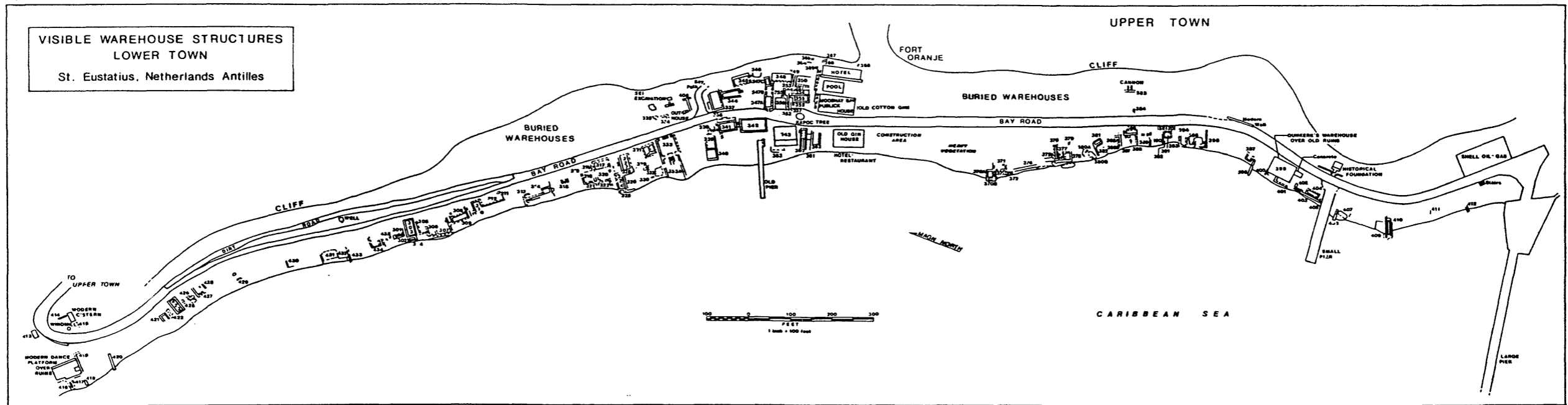


Figure 5. Survey Map of the Visible Lower Town Ruins (Barka 1985)



plantation (Barka 1996). Many of these excavations were undertaken in advance of planned development or renovation activities and were coordinated with the assistance of the Historical Foundation and the Monuments Board.

Underwater surveys have located and mapped several features in Oranje Bay and Gallows Bay, just off the Lower Town beach (Dethlefsen 1982:80). The eighteenth-century breakwater consists of large (50-75 lb.) boulders in a line paralleling the beach at 50 to 100 m offshore, rising to about 2 m below the water surface (Barka 1985:7; Passalacqua 1987). The offshore anchorage zone was determined to lie between 500 and 900 m offshore and to be approximately 900 m long x 325 m wide (Barka 1985:6-7; Nagelkerken 1985). A magnetometer survey of the anchorage zone in 1986 located at least five shipwrecks (Bequette 1986; 1988). Subsequent survey efforts have identified a total of 38 shipwrecks in Oranje Bay (van't Hof 1993). These shipwrecks and the ruins of the Lower Town warehouses comprise the material remains of the island's history as a commercial trade center.

In-depth studies conducted by graduate anthropology students have probed a wide range of anthropological and historical issues which can be applied to other Caribbean

islands, many of which share similar cultural histories with St. Eustatius. Linda France (1984) directed the excavations at English Quarter plantation (SE45), discussing the economics and technology of the sugar manufacturing industry and its influence on social customs, politics, and lifeways. Patricia Kandle (1985) directed excavations at four Lower Town sites and examined the historical and geographical factors that affected the acculturation process between the island's permanent residents and the more transient Lower Town merchant community. Barbara Heath (1988) studied the development and manufacture of locally-made Afro-Caribbean Ware in the context of regional economic trends of the nineteenth and early twentieth centuries. Suzanne Sanders (1988; 1989) conducted an architectural survey of Oranjestad, documenting construction styles and the varying extent of Dutch and English influence on the island's architecture. James Delle (1989) conducted a survey of over a dozen sugar plantations throughout the island, gaining important insights into aspects of spatial patterning of this industry as manifested on St. Eustatius. Maria Monteiro (1990) documented and measured 87 stone baking ovens in the island's residential area, discussing their construction, use, and social function. Ross

Harper (1990) documented the water cisterns in Oranjestad, providing a baseline of data for the analysis of cisterns throughout this rain-dependent island. Laurie Paonessa (1990) examined over 300 graves in five cemeteries and documented several other cemeteries throughout the island, analyzing grave decorations, burial customs, and reflections of status in St. Eustatius' graveyards. Bryan Howard (1991) surveyed and documented St. Eustatius' fourteen known military sites in the context of eighteenth-century military theory. Most recently, Dana Triplett (1995) analyzed the use of space in Oranjestad, discussing the varying influences of Dutch, French, and English presence on the town's layout as compared with other Caribbean and Northern European town plans.

Working independently of the William and Mary program, a team of Dutch archaeologists led by Aad Versteeg excavated a large prehistoric Saladoid period village on the Cultivation Plain between 1984 and 1989 (Versteeg and Schinkel 1992). An excellent monograph was published as a result of this research, and an exhibit on the island's prehistory was developed for the St. Eustatius Historical Foundation Museum. The report summarizes the research in a format that is accessible to both the layman and the scholar. The results of

Versteeg's research are detailed in Chapter 4 in the description of Site SE88/89.

Archaeological research will continue to be conducted on St. Eustatius for many years to come, whether by the Antillean government's Institute for Archaeology and Anthropology, Dr. Versteeg of Leiden University, Dr. Barka of the College of William and Mary, or other researchers. The quality of previous research, particularly the early work, is uneven, but the sum total is impressive, as evidenced in the catalog of sites that comprises Chapter 4. Following the site catalog, the substantive results of previous research are summarized and directions for future research are offered in Chapter 5.

**CHAPTER 4:**  
**ARCHAEOLOGICAL SITE CATALOG**

The site descriptions presented here are summarized from the historical and archaeological reports and sources discussed in Chapter 3. The sites are listed in order by the site numbers that Dr. Barka has assigned over the years, there being no official site numbering system for the island. At the start of the survey program in 1981, blocks of numbers were set aside for certain areas of the island: 100-199 for rural areas, 200-299 for Oranjestad, and 300-500 for Lower Town. This was done to allow survey teams working in the different areas to assign site numbers independently of each other. Some gaps still exist in the numbering system because not all areas have yet been thoroughly surveyed.

The site names given here are those used in the original survey report (Barka 1985), which in turn relied on the official cadastral survey map. It should be kept in mind, however, that some plantations have undergone several name

changes over time. Barka's 1985 site location map is shown as Figure 6, and an updated site location map is provided to show all documented sites (Figure 7). Sites denoted as Historic Artifact Scatters are not depicted, nor are sites for which no reliable survey documentation could be found. The extant data on some sites is incomplete or contradictory.

Descriptions include the following information: site number, site name, locational information, correlations with plantations listed on the 1775 map (Figure 8), description of features, level of documentation, and references to the site in both primary and secondary sources. The 1775 map is referenced because it names most of the plantations and their owners at the height of the island's prosperity (Delle 1989:180-181). Where correlations between the 1775 map and a particular site were possible, the number on the 1775 map is given. For example, "1775#61" indicates that the site probably matches plantation #61 as shown on the 1775 map. Linking a site to a specific individual is not always possible but is an important step in documentary research. For those sites where surface collections were made, a list of recovered artifact types is included to help establish site chronology, but this information was not recorded consistently. Following

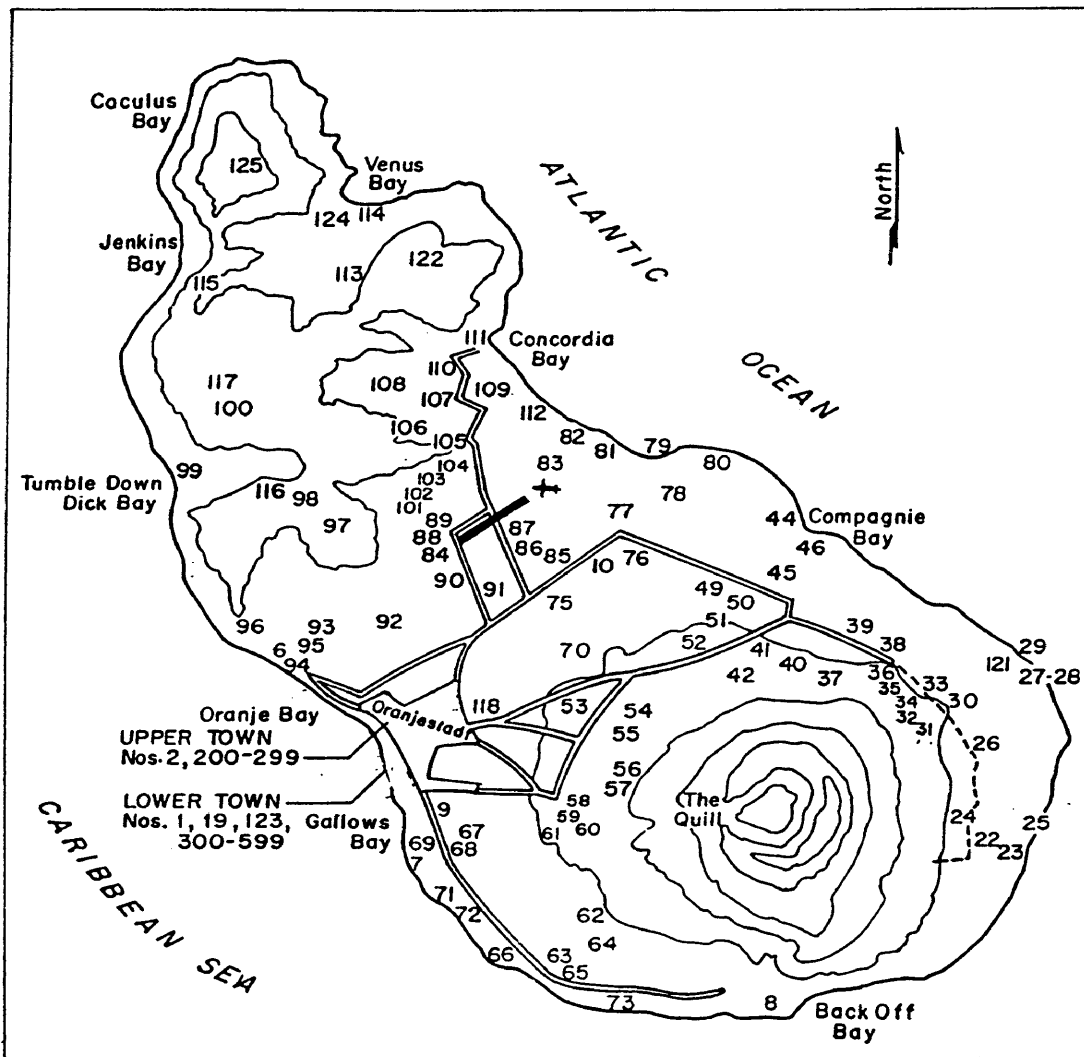


Figure 6.

1985 Archaeological Site Map (Barka 1985)

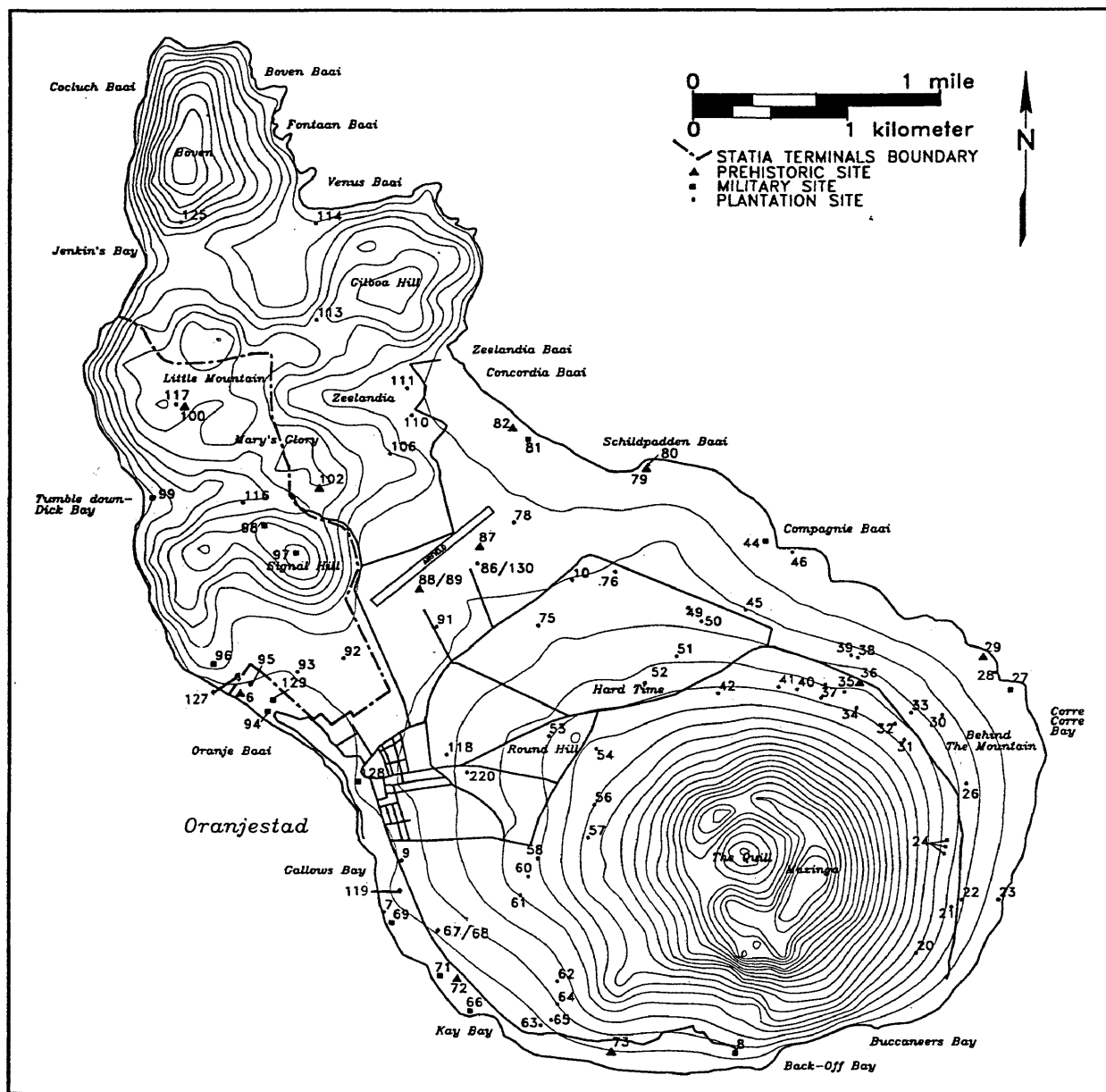


Figure 7.

Archaeological Site Map



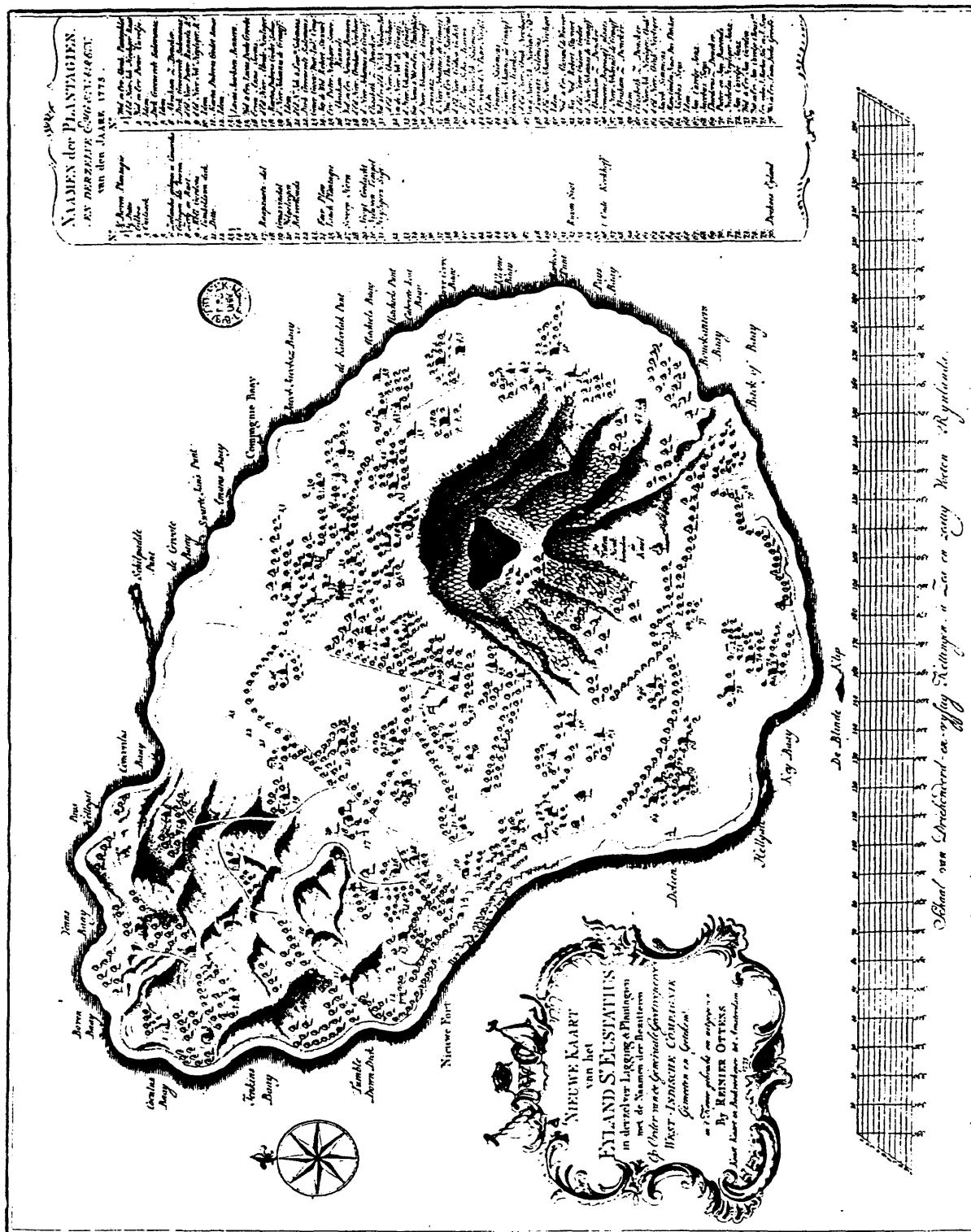


Figure 8. 1775 Plantation Map (R. Ottens)

archaeological convention, the dimensions of historic structures are given in English units, while all other measurements are in metric units. The locations of all reliably documented sites are shown in Figure 7.

**SE1** This was the first warehouse site excavated in Lower Town. Its number was later changed to SE300 in keeping with the site numbering system utilized in that district. The site is located in the Lower Town warehouse district, 25 m north of the Bay Path at the base of the eroded slope. It was excavated in 1981 to determine the nature of the deposits in this portion of the former commercial district, where warehouse ruins had been buried by the gradual slumping of the cliff face above. Several fragmentary structural features were noted, but the fill, mostly dating from the nineteenth century, was determined to have come from the cliffs above, not from late eighteenth-century commercial activity that had occurred at the site (Barka 1985:30-32; Kandle 1985:141-144).

**SE2** This trash disposal area, covering approximately 0.75 acre, is bounded on the east by the Dutch Reformed Church ruin, on the south by a deep ravine, on the west by the cliffs that overlook Lower Town, and on the north by Fort Oranje.

Large quantities of mid eighteenth-century English, French, and Dutch ceramics and glassware were recovered from ten excavation units, giving researchers valuable insights to the material life of Oranjestad's inhabitants during the island's Golden Era of prosperity. A number of unmarked graves, probably victims of a 1776 smallpox epidemic, were noted in the southwest corner of the site where the ravine meets the cliff edge (Dethlefsen 1982:78). Site SE2 was excavated in 1981 (Barka 1985:54-55).

**SE3 - SE5** Historic Artifact Clusters. No published locational information or other details can be located for these three sites (listed in Barka 1985:57).

**SE6** The Godet prehistoric site, discovered by Figueredo in 1975, is located 25 m from the shoreline near where Billy's Gut empties onto the beach. The site extends for about 80 m along the beach. A 1 x 2 m excavation trench exposed midden deposits 1.2-1.5 m deep, containing Saladoid White on Red ceramics, chert debitage, marine faunal remains, basalt boulders, and lithic tools. Historic artifacts on and near the surface are probably associated with the nearby Lazareto Leper Colony (see SE127). The site was partially excavated in 1975 (Figueredo 1975), and was resurveyed in 1981 (Haviser

1981b:103-104; 1981c).

**SE7** Crooks Castle. Site SE7 is located on the shoreline of Gallows Bay in a large gut mouth about 1/2 km south of the large pier. The site comprises a 175 x 110 ft complex including 2 cisterns, a well and trough, sugar tanks, a boiling house, a curing room, a rum distillery, a warehouse, and one unidentified structure. A large number of broken earthenware vessels known to have been used in sugar production were recovered during excavations in 1981 (Barka 1985:43-45). Long suspected to be a sugar refinery or an indigo processing facility (Dethlefsen 1982:78-79), a 1988 survey of the island's sugar plantations by archaeologist James Delle (1989) confirmed it as a sugar plantation. Relic hunters have reportedly recovered large quantities of blue glass "slave beads" from the site over the years. The site was cleared, mapped, and partially excavated in 1981 (Hinote 1981; Kandle 1985:146), and was resurveyed in 1988 (Delle 1989: 131-134).

**SE8** Fort de Windt is located at the end of the Coast Road on the southernmost tip of the island overlooking Back Off Bay and the neighboring island of St. Kitts. Built in 1756, this V-shaped battery consists of two parapets and a low

wall facing the sea and fronting a cobble pavement. A nearby area of rubble and ceramics may indicate the location of a guardhouse or cistern. The site was surveyed, cleared, and excavated in 1981 (Haviser 1981b:95; Kochan 1982), rebuilt and stabilized in 1982 (Barka 1985:65-67), and resurveyed in 1990 (Howard 1991:247-251).

**SE9** Wilton. Site SE9 is possibly the plantation of A. Heyliger (1775#61). The complex includes two cisterns, three structures, and several dry pile stone walls. No survey data could be found for this site, only a map reference and an entry in the first published archaeological site list (Barka 1985:4,58; see figure 6).

**SE10** The Fair Play plantation and sugar refinery complex includes a stone windmill base 25 ft in diameter and 25 ft high; a raised earthen animal mill 46 ft in diameter; a large boiling house built on a "T" shaped plan with an intact chimney; a stone structure measuring 32 x 22 ft; a 72 ft square animal pen; a group of three large probable warehouses; and another structure with modern additions that originally measured 30 x 30 ft. One of the warehouses has been converted into a garage. The ruins are somewhat overgrown and some have modern alterations, but are currently protected on private

property. Originally surveyed and sketch-mapped in 1981 (Haviser 1981:87-109), the site was resurveyed, mapped, and photographed in 1988 (Delle 1989:62-87).

**SE11 - SE18** Historic Artifact Clusters. No published locational information or other details can be located for these eight sites (Barka 1985:58).

**SE19** This warehouse site, also designated as Site SE349, is located in the Lower Town commercial district in a narrow alleyway between Sites SE348 and SE350. The deposits, over six feet deep in places, include late eighteenth- through early nineteenth-century ceramics and glassware, in addition to large quantities of rubble and faunal remains. The 1981 excavations revealed extensive reconstruction of the adjacent structures and provided important information on the rich material culture of the merchants who resided in this district during Statia's Golden Era (Barka 1985:32-36; Kandle 1985:144).

**SE20** Site SE20 is the probable plantation of J. & A. Heyliger (1775#47). It is located between the end of Behind The Mountain Road and Fort de Windt (SE8) at the 100 m elevation line, 450 m south-southwest of the Markoe Ruins (SE22). As recorded by Haviser, the site consists of a square

open-top cistern, two large house foundations, a long tall dry pile stone wall, a cistern, and two other foundations. This site was surveyed and sketched in 1981 (Haviser 1981b:65, 147-149).

**SE21** Site SE21, probably the former property of the West India Company (1775#23), is located at the end of Behind The Mountain Road, 70 m southwest of Markoe Ruins (SE22). Haviser noted saltglazed stoneware and a cluster of red and yellow bricks with mortar attached, however, no structural foundations could be discerned. The site was surveyed in 1981 (Haviser 1981b:147).

**SE22** The Markoe plantation complex (1775#46) is located 25 m east of Behind The Mountain Road. The site includes a modern concrete cistern and tin shed, as well as a collapsed stone cistern and the ruins of a stone and mortar structure. Lines of dry pile stone walls extend eastward toward the cliff. Surface artifacts include creamware, pearlware, porcelain, and clear and green glass. Site SE22 was surveyed and sketched in 1981 (Haviser 1981b:29-32).

**SE23** Site SE23, the Markoe Well, is located at the bottom of the cliff at the water's edge, at the easternmost end of the Markoe plantation boundary walls. Acting on a tip

from a local resident, Haviser found mortared stone fragments embedded in the beach at the high tide line, apparently the remains of a well that had once served the Markoe plantation. This site was surveyed in 1981 (Haviser 1981b:32).

**SE24** The Retreat ruins complex probably represents three separate eighteenth-century plantations (1775#'s 49, 50, & 51). The site is located 85 m west of Behind The Mountain Road about 250 m north of Markoe Ruins (SE22). This site comprises three small clusters of ruins about 30 m apart, separated by dry pile stone walls. The southernmost cluster includes a plastered stone and mortar cistern inscribed "DP 1728" on one corner, and an attached catchment structure. The middle cluster includes a mortared stone oven, still largely intact in 1981, and several adjacent stone foundations. The northernmost cluster, located 35 m north/northwest of the oven, consists of a large structure with numerous walls and an attached well, all of mortared stone. Surface artifacts extend over the entire area and include creamware, Rhenish and other stonewares, green glass, and many heavily rusted iron objects. Haviser identified the last cluster of ruins as a sugar mill. The site was surveyed and sketched in 1981 (Haviser 1981b:41-46).



**SE25** Historic Artifact Cluster. A concentration of clear glass and Rhenish stoneware was noted at the southern cliff edge of the Nonna Grells plantation in the course of the 1981 survey (Haviser 1981b:32).

**SE26** Known as Miss Tini's Land, this plantation complex is located 80 m east of Behind The Mountain Road in a rectangle formed by dry pile stone walls. The site includes one structure that measures 27 ft x 22 ft x 4.6 ft high, a smaller structure 12.5 ft x 14.8 ft x 4.6 ft high, and a cistern with rounded corners that is in poor condition. All of the structures are built of mortared stone. This site was surveyed and sketched in 1981 (Haviser 1981b:37-40).

**SE27** Battery Corre Corre is located on a small hill at the southeast end of Corre Corre Bay about 10 m above the beach where the coral reef ends. The site consists of an arc-shaped wall about 1.5 ft high with three cannon in place as of 1989, and the concrete base of what might have been the garrison quarters, located 15 m to the north. Surface artifacts found in 1981 included pearlware, creamware, porcelain, stoneware, green glass, a belt buckle, a brass button, and kaolin pipestems. Site SE27 was surveyed and sketched in 1981 (Haviser 1981b:33-34), then resurveyed and

mapped in 1990 (Howard 1991: 312-317).

**SE28** The Behind The Mountain well is located in a gut mouth at the tip of the point just north of Corre Corre Bay. This site consists of a well with a trough and probable cistern structures. The well is located about 25 m from the shore and the cisterns about 35 m further inland. Site SE27 was surveyed and sketched in 1981 (Haviser 1981b:26-28).

**SE29** This prehistoric site is located on the point of land north of Corre Corre Bay, along the northern side of the cliff top overlooking a gut which flows out the middle of the point. Behind The Mountain Well (SE28) is located just below this site in the mouth of the gut, and Corre Corre Battery (SE27) is to the south. The site consists of a 35 m diameter scatter of chert debitage, fire-cracked rock, and two hammerstones. Primary reduction flakes as well as secondary retouch flakes were noted, many displaying patination and/or thermal alteration. No pottery or other prehistoric artifacts were recovered. These attributes led Haviser to assign this site to a pre-ceramic Archaic period, potentially several thousand years earlier than any other site on the island (Haviser 1981c:14). Significantly, Site SE29 is located on the point of the island closest to Antigua, which has the

nearest source of chert outcrops and one of the few other Archaic sites known in the region. The site was surveyed in 1981 (Haviser 1981b:34-37; 1981c).

**SE30** The Behind the Mountain plantation site, possibly the former plantation of Pieter Hasfel (1775#43), is located 25 m west/southwest of Benchmark #14. This site consists of a domed cistern and a house ruin with its east wall and chimney intact to a height of 13.5 ft. The cistern is built of plastered red brick and stone, and its north half is collapsed. The house is constructed of mortared stone and the chimney of yellow brick. While the structure displays no evidence of having had interior walls, the chimney flue is separated in the middle, indicating that it vented two fireplaces. The site also includes a relatively modern concrete cistern. Site SE30 was surveyed and sketched in 1981 (Haviser 1981b:23-26).

**SE31** The Knippenga plantation site, possibly the plantation of Lourentz Salomons (1775#48), is located 75 m west of Behind The Mountain Road. This site includes a mortared stone cistern with a yellow brick domed roof and yellow brick steps leading to its top, a large associated catchment basin, and an "L" shaped house foundation of

mortared stone. Haviser found the cistern in good condition, the catchment partially collapsed, and the house foundation being used as an animal pen. This site was surveyed and sketched in 1981 (Haviser 1981b:47-49).

**SE32** The Mount Pleasant site, possibly one of the properties owned by Johannes de Graaff (1775#35), is located 70 m west of the Behind The Mountain site (SE30) in an open area east of a large tamarind tree. Haviser noted a dry pile stone wall 4.3 ft high forming a square of 33 ft on each side, with no apparent breaks in the wall. A fragment of yellow brick and some green glass were noted in the vicinity, but no other foundations or clues to the function of this unusual feature were identified. Site SE32 was surveyed in 1981 (Haviser 1981b:50).

**SE33** The Guyeau/Rocky Town plantation site, possibly the plantation of Pieter Hasfel (1775#42), is located 40 m east of Behind The Mountain Road in an area crisscrossed by dry pile stone walls. This site consists of three cisterns near a series of stone and mortar foundations, and a surface artifact scatter that includes creamware, Buckley ware, delFTWARE, pearlware, a goblet base, and porcelain. Just to the southeast is another cistern and a small catchment basin. To

the northeast is a cemetery with six graves. Four of the graves are covered with plastered stone, and two with red and yellow brick. The cemetery is enclosed by a small rectangular dry pile stone wall which is visible on the topographic map. This site was surveyed and sketched in 1981 (Haviser 1981b:18-23).

**SE34/35** The Steward plantation complex, possibly the former plantations of Robert Stuwart (1775#52) and Gideon Godet (1775#53), is located 150 m southwest of Behind The Mountain Road. This site consists of six open top cisterns of various shapes and sizes within a 100 m area, centered around a large cistern (31.6 ft x 16 ft x 11 ft deep) with attached wall foundations. The site is bisected by a bulldozed road, and as of 1981 this area was being used as a cooperative garden. Site SE34/35 was surveyed and sketched in 1981 (Haviser 1981b:50-57).

**SE36** This prehistoric site is located adjacent to the dirt road that leads to the Steward site (SE34/35), 15 m west of Behind The Mountain Road. It was identified based on 8 Strombus shell celts eroding from the ground. No other prehistoric artifacts were noted. Haviser interpreted this as a woodgathering site related to the main Saladoid Period

settlement at Golden Rock, based largely on ethnographic analogy with other cases in which exhausted tools were discarded at procurement sites far from main settlements. This site was surveyed in 1981 (Haviser 1981b:50, 58; 1981c).

**SE37** The Industry sugar mill complex consists of two components. The first is a plastered yellow brick domed cistern with an associated catchment area, located 100 m west of Behind The Mountain Road. The second component, located 200 m southwest of the road, is a sugar mill complex featuring a boiling house made of mortared stone, with red brick lined vat seats and a yellow brick chimney standing 11.2 ft high. This site also includes a yellow brick oven, a well, several rubble wall foundations, and two roller-type cane crushers. Surface artifacts include pearlware, porcelain, and green glass. Site SE37 was surveyed and sketched in 1981 (Haviser 1981b:58-61).

**SE38** The Man-O-War plantation site, possibly the plantation of J. S. Marcus (1775#40), is located 120 m north/northeast of Behind The Mountain Road. This site consists of a large yellow brick domed cistern with a catchment basin on three sides. A nearby house was reportedly scavenged for building stone in the early twentieth century.

Site SE38 was surveyed and sketched in 1981 (Haviser 1981b:15-18).

**SE39** The Lawyer plantation site, possibly the plantation of J. Salomons (1775#41), is located directly adjacent to the stone pile wall that separates it from Man-O-War plantation (SE38). This site consists of a domed plastered yellow brick cistern with an eroded catchment area on three sides. Surface artifacts in the area included an iron boiling kettle, creamware, porcelain, delftware, and a rubble scatter. No foundations were identified. This site was surveyed and sketched in 1981 (Haviser 1981b:16-17).

**SE40** The Bengalen plantation site is located 200 m southwest of Behind The Mountain Road and 40 m southeast of the dirt driveway that enters the property from the paved road. This site consists of a stone and mortar cistern covered with concrete, and a stone and mortar house foundation. Local residents reported that a wooden frame house existed there in the early twentieth century, but by 1981 only the 3.1 ft high stone foundation survived. This site was surveyed and sketched in 1981 (Haviser 1981b:62-63).

**SE41** The Free Gut plantation site is located 100 m west of Bengalen (SE40). The only recorded feature is a collapsed

mortared-stone cistern. Site SE41 was surveyed and sketched in 1981 (Haviser 1981b:63).

**SE42** The Peru plantation site, possibly one of Johannes de Graaff's properties (1775#45), is located 125 m south of the road that runs from Big Stone to Halfway Path. This site consists of a domed yellow brick cistern in poor condition. It was surveyed and sketched in 1981 (Haviser 1981b:66-67).

**SE43** Historic Artifact Cluster. No published locational information or other details can be located for this site (Barka 1985:59).

**SE44** The Battery St. Louis site is located on the north cliff overlooking Compagnie Bay, about 30 m above the shore. This site, partially eroded downslope, consists of three parapet walls facing the sea, each about 2.5 ft high, with a cobble pavement behind them. No barracks remains have been located, but a nearby artifact scatter includes creamware, porcelain, delftware, stoneware, Buckley Ware, green glass, and pipestems. Site SE44 was originally surveyed and sketched in 1981 (Haviser 1981b:14-15), then resurveyed and mapped in 1990 (Howard 1991:307-311).

**SE45** The English Quarter plantation complex is located just north of the intersection of Halfway Path and Behind The



Mountain Road. It is the largest and best preserved sugar refinery on St. Eustatius. No plantation is depicted in this location on the 1775 map, and archaeologist Linda France states that English Quarter was built sometime after 1781 (France 1984:168). The main residence was refurbished in 1857, heavily damaged in a 1908 storm, rebuilt, and destroyed by fire two days later. Since then, the land has been used for grazing and for Royal Dutch Marine maneuvers.

A substantial stone archway over the entrance path is one of English Quarter's most distinguishing features. The site consists of 3 components: a residential area, the sugar refinery complex, and an area that has been interpreted as a slave quarter. The residential area, lying east of the entrance path, contains the ground floors of three mortared stone house foundations which retain evidence of wooden upper stories. The industrial complex includes an animal mill and holding pen, a large boiling house with 33.5 ft high chimney, some drying rooms, a curing house, cisterns, and a warehouse. The third component lies approximately 125 m west of the refinery and is described by France as two rubble piles with associated (unspecified) domestic artifacts (France 1984:241-242). Although France interprets the third component as a

slave quarter, it is more likely that these two rubble piles represent the remains of two earlier plantations that were subsequently absorbed by English Quarter. The 1775 map depicts two plantations in the approximate vicinity of this component, one owned by Lourentz Salomons (1775#36) and the other by Johannes de Graaff (1775#37). The possibility that these two eighteenth-century plantations later became part of English Quarter is reinforced by the marital ties between English Quarter's founder, John Williams, and the Solomons family (France 1984:175). It is possible that slaves were allowed to live in these structures after the land was acquired by Williams, but it is unlikely that the houses were constructed for that purpose. Field notes indicate that this western portion of English Quarter was never surveyed by Havisser.

Paonessa (1990:47-48) describes a graveyard at English Quarter containing ten marked graves, five dating from the mid-eighteenth century. This would place the cemetery chronologically before the founding of the English Quarter plantation, so it was probably associated with one or both of the two earlier plantations. The precise location of this graveyard is not specified in her study, but should be

established and documented. The English Quarter site was first surveyed and sketched in 1981 (Haviser 1981b:1-12), then cleared, mapped, photographed, and partially excavated in 1982 (France 1984).

**SE46** The English Quarter well is located at the mouth of a large gut that empties into Compagnie Bay, at the end of a rough road leading from the main plantation site (SE45). This well feature is constructed of plastered stone and is surrounded by a catchment trough. An artifact scatter at the top of the cliff includes Spanish olive jar sherds, redware, pearlware, delftware, green and blue glass, and pipestems. Four possible warehouse foundations, each measuring approximately 33 ft x 10 ft, were noted just offshore. Site SE46 was surveyed and sketched in 1981 (Haviser 1981b:12-13), and photographed in 1982 (France 1984:241-244).

**SE47 - SE48** Historic Artifact Clusters. No published locational information or other details can be located for these sites (Barka 1985:59).

**SE49** This site, one of three on the Upper Lynch tract, is probably the former property of Johannes de Graaff (1775#33). From a point 700 m east/southeast of where the main road bends around the Fair Play plantation, the site is

located 80 m south/southwest of the paved road. Site SE49 includes a large plastered yellow brick cistern with a catchment basin, a large house foundation, and a square well. Upper Lynch was surveyed and sketched in 1981 (Haviser 1981:120-125).

**SE50** A second site on the Upper Lynch tract is the probable former property of G. Jeems and J. Pantophlet (1775#34). It is located about 120 m southeast of SE49 and about 130 m south of the paved road. This site consists of a domed cistern with associated stone pavement, some scattered rubble, and a modern concrete cistern. The domed cistern is constructed of yellow brick and stone and is in good condition. SE50 was surveyed and sketched in 1981 (Haviser 1981:125-127).

**SE51** The Upper Lynch sugar refinery complex is the former "Linch Plantagie," owned by Pieter Heyliger (1775#25). It is located within a triangular formation of dry pile stone walls about 200 m northwest of the paved road that runs from Big Stone to Halfway Path. The site includes two cisterns: one of red brick with a damaged domed top, and a small square stone cistern with walls measuring 8.9 ft high. There is also a large house foundation in poor condition with large rubble

piles and faint traces of walls; a sugar boiling house with four red brick-lined vat seats; a probable chimney fall zone; and another small structure located south of the house and boiling house. Site SE51 was surveyed and sketched in 1981 (Haviser 1981: 127-128; 1981b:67-72).

**SE52** Hard Time plantation is located 100 m north of the paved road that runs from Big Stone to Halfway Path, west of a north/south trending dry pile stone wall. This property probably corresponds to the eighteenth-century Fair Play plantation owned by Robert Stewart (1775#24), which included the tract across the road now known as Mountain Piece. The 1981 survey located a small rubble pile measuring roughly 10 ft x 13.2 ft, and sherds of pearlware, stoneware, green glass, and a metate. Site SE52 was surveyed in 1981 (Haviser 1981b:72).

**SE53** Lower Round Hill plantation complex, probably the plantation of Abraham Doncker (1775#58), is located to the west of Round Hill, about 150 m east of the dirt road that runs from Mansionweg to Big Stone. This site includes a large domed yellow brick cistern built on a stone foundation, with a trough at one end. Adjacent to the cistern is the foundation of a large structure and two rubble piles. A large

mortared-stone open top cistern with a catchment basin lies 30 m to the south. Surface artifacts include pearlware, delftware, stoneware, porcelain, and green glass. Additional structures are possibly hidden by heavy vegetation. This site was originally surveyed and sketched in 1981 (Haviser 1981:145-152). It was then mapped and photographed by Delle in 1988 as P8808 but was misidentified as "Lodi" plantation (Delle 1989:136-140, 144-146). The adjacent tract identified as "Lodi" on the topographic map has not been surveyed.

**SE54** Upper Round Hill, probably the former property of A. Heyliger and Johannes de Graaff (1775#32), is located 90 m east of Welfare Road, across from Round Hill. This property is currently owned by Jean Gemmil, an American retiree. This site consists of a domed mortared stone cistern, a thick-walled kitchen structure with a yellow brick chimney, and another larger structure. Since the 1981 survey, the main structure has been renovated and enlarged, and another house and cistern have been built behind the main house. First surveyed and sketched in 1981 (Haviser 1981b:74-77), this area was reexamined in 1988 (Delle 1989:134-136). The two descriptions do not match, and it is possible that the ruins described by Delle as P8807 correspond with an open cistern

located further up the hill on property currently owned by Mr. Dave Shaw, another American retiree.

**SE55** This historic artifact cluster was plotted by Barka (1985) to the southwest of Site SE54, but no survey information can be located (see Figure 6).

**SE56** Glass Bottle ruins, possibly the plantation of Abraham Doncker (1775#55), is located 270 m southeast of the intersection of Lodi Road and Welfare Road. This site consists of a large cistern, a small cistern, a large multi-room house, a smaller two-room structure, and a large multi-room structure which might be some kind of industrial facility. Surface artifacts include pearlware, creamware, stoneware, whiteware, and green and clear glass. Site SE56 was surveyed and sketched in 1981 (Haviser 1981b:77-80).

**SE57** Pleasures ruins complex is located 225 m south of Site SE56 and 350 m east/southeast of Welfare Road. The site includes a large cistern built of mortared stone and yellow brick with a catchment basin; a partial structure; and a collapsed domed cistern with a large square mortared stone structure attached. A modern concrete house and outbuilding are also present on the site. This site was surveyed and sketched in 1981 (Haviser 1981b:81-84).

**SE58** The Farms ruins complex is located 100 m southeast of the intersection of Rosemary Lane and Welfare Road. The site includes two building foundations; three relatively recent ruins of concrete and rubble composite construction; three cisterns (two with open tops and one domed with concrete); and several rubble piles with numerous cut stones, bricks, and artifacts. This site was surveyed and sketched in 1981 (Haviser 1981b:85-89).

**SE59** The Lower Farm site was listed and plotted by Barka (1985:60), but no corresponding survey information can be located. The modern topographic map shows no ruins at this location.

**SE60** Lower Place ruins, probably the plantation of Jacob Simmons (1775#63), is located 100 m south/southwest of Site SE58, and 200 m south of the end of Welfare Road, just north of a dry pile stone wall. This site consists of an open top square cistern with a catchment basin, and a roughly square rubble pile of yellow brick, stone, and mortar. Surface artifacts include Rhenish stoneware, pearlware and green glass. Site SE60 was surveyed and sketched in 1981 (Haviser 1981b:89-90).

**SE61** The Upper Union ruins complex, probably the



plantation of Jacobus Seys (1775#66), is located about 150 m south/southwest of Site SE60, and some 330 m south/southwest of the end of Welfare Road. This site includes a mortared stone cistern with a catchment basin, a modern concrete structure built on old stone foundations, and a modern concrete chicken coop. Local residents reported the existence of a filled-in cistern nearby, but it could not be relocated. The sparse surface artifacts included pearlware, porcelain, delftware, and stoneware. The Upper Union site was surveyed and sketched in 1981 (Haviser 1981b:90-92).

**SE62** Lower Bellevue Plantation, the former plantation of Jan Gordon (1775#73), is located 350 m from the paved road that leads to Fort de Windt. This site includes a well-preserved mortared stone domestic structure with a red and yellow brick chimney, and a domed yellow brick cistern with a catchment basin. This site was surveyed and sketched in 1981 (Haviser 1981b:96-97).

**SE63** This site, one of three in the area known as White Hook, corresponds to the former plantation site of Jan Janz (1775#72). It is located about 40 m north of the paved road that leads to Fort de Windt. This site includes a mortared stone cistern with a yellow brick dome measuring 18 ft x 9 ft.

A nearby ruin consists of the north, west, and south walls of a small structure, with another wall segment to the northeast. This site was sketched in 1981 (Haviser 1981b:96), then mapped and photographed by Delle as P8812 in 1988 (Delle 1989:164-165, 168, 174-175).

**SE64** This site, the second in the White Hook group, is the former plantation of J.C. Christ (1775#74). It is located about 175 m north of the paved road that leads to Fort de Windt. The only documentation for this site is a 1981 sketch of a domed yellow brick cistern measuring 7 ft x 12.2 ft x 8.6 ft deep (Haviser 1981b:98).

**SE65** The third site in the White Hook group, probably the former plantation of J. Markoe and J. Seys (1775#75), is located about 70 m north of the paved road that leads to Fort de Windt. This site consists of three features: a double cistern composed of a domed cistern, a smaller open top cistern, and a catchment basin; a 12 x 22 ft domestic structure with three walls in excess of 7 ft still standing; and a structure measuring 7.5 ft square with one wall rising to a peak suggesting a gabled roof. This site was sketched in 1981 (Haviser 1981b:95), then mapped and photographed as P8811 in 1988 (Delle 1989:161-164, 168-173).

**SE66** Battery Nassau is located on the northern cliff of Kay Bay, about 15 m above the shoreline. This battery is built of mortared stone in a wide arc with three embrasures in the walls, which are less than 1 ft high. One cannon was noted lying behind the ramparts during the 1990 survey. Battery Nassau was sketched in 1981 (Haviser 1981b:93), then thoroughly surveyed and mapped in 1990 (Howard 1991:252-256).

**SE67/68** The identity of these two sites in the Bouille area is difficult to ascertain because the 1775 map shows five plantations in a tight cluster in this area, each owned by different individuals. Barka (1985:60) plotted Sites SE67/68 in this vicinity (see Figure 6), and Haviser's field notes include a sketch of one site labeled as "1775#69" (Haviser 1981b:99). James Delle also mapped a plantation in this vicinity as P8810, but his map is difficult to correlate with other documented sites (Delle 1989:140-153, 156-160).

**SE69** Battery Bouille is located on the cliff edge southeast of Crooks Castle (SE7) facing west/southwest, about 25 m above the shore. The battery consists of three low parapet walls fronting a cobble pavement. The walls are well constructed of cut stone with a small brick-lined drain slot in the middle wall, and appear to be in stable condition.

Three cannon lie behind the parapets, and a barracks foundation and cistern are located to the east. Surface artifacts noted in 1981 include a brass button, delftware, porcelain, German and English stoneware, transfer-printed tablewares, green glass, and pipe fragments. Site SE69 was sketched in 1981 (Haviser 1981b:94), then resurveyed and mapped in 1990 (Howard 1991: 262-276).

**SE70** This historic artifact cluster was plotted by Barka (1985:60) to the north of Round Hill, but no survey information can be located (see Figure 6).

**SE71** Battery Dollijn is located on the southwest cliff edge between Battery Nassau (SE66) and Battery Bouille (SE69), 250 m from the paved road that leads to Fort de Windt (SE8). This site has suffered significant erosion damage since the 1981 survey. The walls are built of native stone and brick in an irregular plan generally following the contour of the bluff. Although no cannon or other military artifacts were noted in 1990, eighteenth-century domestic artifacts were present on the surface. This site was sketch-mapped in 1981 (Haviser 1981b:94), then thoroughly surveyed and mapped in 1990 (Howard 1991:230-235).

**SE72** This prehistoric site is located near the southwest

cliff edge, along the north side of a gut about 100 m east of Battery Dollijn (SE71). The site consists of prehistoric plainware ceramics and West Indian Top Shell fragments eroding from the ground in an area about 5 m in diameter (Haviser 1981c:8). The site was discovered in the course of the 1981 survey, but no survey records can be located.

**SE73** This prehistoric site is located on both sides of a gut mouth at the top of the cliff about 750 m west of Fort de Windt (SE8). It consists of a scatter of prehistoric plainware ceramics along with Strombus and West Indian Top Shell fragments eroding from the ground and the cliff edge (Haviser 1981c:9). Like Site SE72, this site was first recorded in 1981, but no survey records can be located.

**SE74** This site was listed in the 1985 inventory as the "possible plantation of D. Groebe and P. Barends (1775)" (Barka 1985:61), but the location was not depicted on the accompanying site map (see figure 6). This combination of names does not appear on the 1775 plantation map (see Figure 9). The 1981 survey notes contain no information on this site.

**SE75** Cherry Tree plantation is located within a stone pile wall enclosure that begins about 120 m southeast of the

road to Fair Play (SE10). This site appears to correspond with the former plantation called "Beeverhouds," owned by L. Salomons (1775#21). The site includes a well, a grave, a large collapsed structure containing a well-preserved yellow brick domed cistern, and three other assorted wall fragments and ruins. Site SE75 was surveyed and sketched in 1981 (Haviser 1981:105-116).

**SE76** Site SE76 is probably the former plantation of Abraham Runnels (1775#26). From a point 200 m east/southeast of where the paved road curves around Fair Play (SE10), the site lies 45 m south of the road. The site consists of a mortared stone cistern with the remains of an attached catchment basin, both in poor condition. This site was surveyed and sketched in 1981 (Haviser 1981b:64-65).

**SE77** This historic artifact cluster was plotted by Barka (1985) to the north of where the paved road curves around Fair Play (SE10), but no survey information can be located (see Figure 6).

**SE78** The Roots plantation site is located under a cluster of tamarind trees northwest of Fair Play (SE10) and about 150 m east/southeast of the runway. Barka (1985) lists this site as an historic artifact cluster, but survey data

suggests a plantation site at this location. The site consists of an open top cistern, a stone foundation, a rubble pile, and surface artifacts including porcelain, stoneware, creamware, delftware, pearlware, whiteware, green glass, and iron. Site SE78 was surveyed and sketched in 1981 (Haviser 1981:77-80), then mapped and photographed by Delle in 1988 as site P8805 (Delle 1989:129-131, 135, 141-142).

**SE79** Lynch Well is located on the southern shore of Schildpadden Bay. This well is made of cut stone and measures 6.5 ft across by 3 ft high. Two corroded sugar boiling pots were noted nearby, serving as watering vessels for animals. This site was surveyed in 1981 (Haviser 1981:11).

**SE80** This prehistoric site is located on the cliff edge directly east of Battery Concordia (SE81) across Schildpadden Bay, about 30 m south of Lynch Well (SE79). It consists of a concentration of West Indian Top Shell fragments and Saladoid ceramics measuring 25 m in diameter and extending to about 25 cm below ground surface. This site was surveyed in 1981 (Haviser 1981:15; 1981c:8).

**SE81** Battery Concordia, often erroneously called Fort Amsterdam, is located at the end of the airport runway, overlooking Concordia Bay. It consists of three low, thick

parapet walls with a wing on either end and stone pavement behind the walls. Two cannon and a dense scatter of eighteenth-century domestic and military artifacts were noted a short distance behind the battery, but no barracks foundations were located. This site was surveyed and sketched in 1981 (Haviser 1981:15-16), then excavated, photographed, and mapped in 1990 in advance of a 1991 reconstruction and stabilization project (Barka 1991; Howard 1991:294-305).

**SE82** This prehistoric site is located on the cliff edge overlooking Concordia Bay, about 800 m southeast of the Zeelandia drainage and 250 m northwest of Battery Concordia (SE81). It consists of a 10 m diameter concentration of shell fragments including a celt, eroding from the cliff edge to about 20 cm below ground surface. No prehistoric pottery was noted. Site SE82 was first recorded on the 1981 survey (Haviser 1981:17; 1981c:8).

**SE83** This historic artifact cluster was plotted by Barka (1985), but no survey data can be located (see Figure 6).

**SE84** This plantation site might correspond to either Graavindal (1775#19) or Welgeleegen (1775#20), both owned by Johannes de Graaff. Located near the western end of the airport as it existed in the early 1980s, the site may have



been impacted by subsequent airport expansion (see Figure 6). Neither Barka (1985) nor Haviser (1981; 1981b) lists any survey information for the area where SE84 is plotted.

**SE85** The Concordia Gravesite consists of two graves and is located 25 m south/southeast of the Concordia well (Barka 1996: Figure 1). One grave is built of mortared stone and is marked with an inscription for John Landsman (1825-1845). The other mortared-stone domed grave is unmarked, but reportedly contains a lead coffin bearing an inscription for Johannes deGraaff Godet, a descendant of the renowned colonial governor. The site was surveyed in 1981 (Haviser 1981:76-78) and relocated in 1996 (Barka 1996:11-12).

**SE86** The Concordia plantation complex is located 40-45 m north of the Concordia well/windmill, to the east of the present airport terminal building. The complex includes a two-story mortared-stone house, another mortared-stone structure, a possible cistern, and a sugar boiling house. The site was surveyed and sketched in 1981 (Haviser 1981:59-71). Excavations conducted at the site in 1994 are discussed in the description for Site SE130.

**SE87** This site represents the remains of the prehistoric occupation identified by deJong as Areas D, E, and F, located

a short distance north of Concordia plantation within the present boundaries of the airport. Most of the site was buried beneath a meter or more of fill during construction of the airport; the 1981 survey found only one sherd of white-on-red Saladoid pottery. De Jong excavated portions of this site in 1923 (Josselin de Jong 1947), and it was reexamined in 1981 (Haviser 1981:72).

**SE88/89** This prehistoric site includes de Jong's Areas B and C, and is the "Golden Rock Site" excavated by Versteeg and Schinkel from 1984 to 1989. When surveyed in 1981 it was assigned two numbers in deference to deJong's separate designations, but Versteeg's later study proved it to be one large village site. Located approximately 60 m southwest of the airport terminal and 300 m north/northeast of the Golden Rock plantation site, Site SE88/89 served as the main village for several centuries of Saladoid occupations. The excavations revealed the only complete village plan of this period ever documented in the Caribbean.

Archaeological features included 14 structures, 9 burials, 4 caches, 3 hearths, 113 pits, and 2 middens. The artifacts consisted of Saladoid ceramics and a wide variety of tools and decorative items made of bone, shell, stone, and

coral. Faunal remains included fish, shellfish, birds, reptiles, and small mammals. Upper levels of the site had been disturbed by historic agricultural activities, but extensive sub-plowzone deposits remain intact. The site was initially excavated in 1923 (Josselin de Jong 1947), resurveyed in 1981 (Haviser 1981:40-42; 1981c), and was thoroughly excavated in 1984-89 (Versteeg & Schinkel 1992). The site is currently protected on an unused corner of airport property, its postholes marked by small concrete pillars.

**SE90** This historic artifact cluster was plotted by Barka (1985) to the southwest of the airport, but no survey data or other information could be located (see Figure 6).

**SE91** The Golden Rock plantation complex, probably the former plantation of Martin Godet (1775#18), is located just south of the airport and is surrounded by modern housing. Most of the features of this historic sugar mill complex are well preserved. The site includes a well and attached modern windmill; a sugar boiling house ruin with cistern, chimney base, and two intact walls; a probable boarding house ruin with a kitchen area and three parallel interior walls; an animal powered mill with its old cane crushers lying nearby, and a cemetery with three marked and several unmarked graves.

Haviser (1981:54) noted that the area around the gravestones had been spared from the plow only by the presence of some large trees nearby. However, neither Delle (1989) nor Paonessa (1990) mentioned the Golden Rock graveyard in their subsequent studies, so it might have been destroyed by development or agricultural activity in the meantime. Site SE91 was surveyed and sketched in 1981 (Haviser 1981:45-53), then mapped and photographed as P8801 in 1988 (Delle 1989:89-94, 114-116).

**SE92** Schotsenhoek plantation complex, the probable former plantation of Lucas Groebe (1775#15), is located south of Signal Hill and 200 m west of Jeems Road. This site consists of a mortared stone cistern with a modern concrete catchment basin; a stone boiling house which has been reinforced and is now used for storage; a wooden house (original?) in good condition; a cistern; a cemetery with at least 12 graves including those of Lucas Groebe and his wife; and two entrance gate pillars. Cotton was grown at this plantation in the early twentieth century, and a family lived in the house until the early 1980s. The site is currently on property controlled by Statia Terminals and is being used as a garage and storage area. Schotsenhoek was surveyed and

sketched in 1981 (Haviser 1981:129-144), then mapped and photographed as P8803 in 1988 (Delle 1989: 105-113, 117-128). The plantation cemetery was documented in 1989 (Paonessa 1990:46-47).

**SE93** The Benners plantation complex, former plantation of Lucas Benners (1775#13 & 14), is located southwest of Signal Hill and 275 m west/southwest of Schotsenhoek; not further south where the modern topographic map indicates the name Benners. All structures are of mortared stone construction with little remaining above the ground surface. This site consists of a large boiling house with adjoining curing house; an animal mill; a cistern; an additional curing house; a large well filled with artifacts; and a cemetery with at least 13 graves, some inscribed "Benners" and all dated from 1729 to 1802 (Paonessa 1990:46-47). Surface artifacts include Rhenish stoneware, pearlware, creamware, porcelain, green glass, and pipestems. The site is on property currently owned by Statia Terminals. Site SE93 was surveyed and sketched in 1981 (Haviser 1981b:109-115), then mapped as P8802 in 1988 (Delle 1989:95-105).

**SE94** The Waterfort is located just above the high tide line on the north end of Lower Town beach, between the dance

pavilion and Billy's Gut. This fort was the second constructed on St. Eustatius (Hartog 1976:26). Built in the late seventeenth century, it includes at least ten embrasures in its mortared stone walls which stand 10 ft above the beach surface. Overall dimensions of the fort are approximately 150 ft x 70 ft. Its various stages of construction and decay have been chronicled by archaeologist Brian Howard (1991). Of special interest is the 1726 construction of a 54 x 21 ft slave house within the fort. Contemporary drawings of the slave house survive (Attema 1976:Plates 7, 8; Hartog 1976:50), but the building no longer stands. Few surface artifacts have been noted in the various surveys, possibly as a result of relic hunting. Site SE94 was surveyed and sketched in 1981 (Haviser 1981b: 116-117), and mapped in 1990 (Howard 1991: 210-218).

**SE95** The Godet plantation site, probable former plantation of Martin Godet (1775#12), is located on the south edge of Billy's Gut, 110 m inland from the beach. This site includes two components: the upland portion was still inhabited in 1981 and included a main house, a cistern with catchment basin, and another structure, all of mortared stone construction. From the residence, three terraces descend to

the lower portion which includes a well, another circular well-like feature, and three building foundations. The Godet site was surveyed and sketched in 1981 (Haviser 1981b:105-109).

**SE96** Fort Royal is located on the southern tip of Horseshoe Mountain, a.k.a. Pilot Hill, overlooking Billy's Gut. This fort commands an excellent view of Oranje Bay, Oranjestad, and most of the Cultivation Plain. The remains consist of a low semicircular wall with seven cannon, a stone and yellow brick powder magazine, and a barracks complex including a domed yellow brick cistern. The site lies on land controlled by Statia Terminals, which constructed a cement antenna pad within the battery in the 1970s. This site was surveyed and sketched in 1981 (Haviser 1981b: 118-120), and mapped in 1990 (Howard 1991: 236-242).

**SE97** Fort Panga is located at the pinnacle of Signal Hill, commanding a 360° vista. This battery and observation post consists of an elevated stone platform with a low parapet and five cannon, a garrison structure, a cistern, and auxiliary features. The structures are built of faced stone, red and yellow brick, and mortar. Most of the walls are intact to the roofline, but the domed yellow brick roofs have

fallen. Surface artifacts include delFTWARE, porcelain, creamware, pearlware, green glass, and pipestems. Fort Panga was surveyed and sketched in 1981 (Haviser 1981b:124-129), then mapped in 1990 (Howard 1991: 278-287).

**SE98** Battery Jussac is located atop Signal Hill, just north of Fort Panga (SE97). This battery is positioned to defend the approach to the fort, and consists of a stone platform supporting low thick mortared stone parapet walls which surround the battery. The walls are straight on three sides and rounded on the north end, presenting a plan view which is best described as a keyhole shape. An earthen trench leads to Fort Panga, past a domed yellow brick cistern situated about 30 m southwest of the battery. Three cannon were inventoried at this site. Site SE98 was surveyed and sketched in 1981 (Haviser 1981b: 121-124), then mapped in 1990 (Howard 1991: 288-293).

**SE99** The Tumble Down Dick Battery is located 20 m from the shoreline at the end of the basin between Pisga Hill and Signal Hill. This battery was built to prevent interlopers from landing on this isolated stretch of beach. A 1740 drawing of the battery shows an irregular parapet wall with at least eight cannon embrasures (Attema 1976: Plate 5). This



configuration was confirmed by the 1981 survey, which also noted six cannon. Unfortunately, this site lies in the main storage tank area of Statia Terminals, and the majority of it was destroyed by construction of the facility. Only a short section of the parapet wall with three embrasures and four cannon remained by 1990. Also destroyed was an indigo-processing facility which was depicted to the rear of the battery on the 1740 drawing; that site probably corresponded with plantation #11 on the 1775 map. Site SE99 was surveyed and sketched in 1981 (Haviser 1981b:139-141), and resurveyed in 1990 (Howard 1991: 219-229).

**SE100** This is the designation given to the prehistoric component of the Pisga plantation site in the Little Mountains region, although it is probably not actually a prehistoric site. De Jong noted some possible undecorated prehistoric ceramic sherds here in 1923, but was unable to account for their presence so far from any other prehistoric remains. The 1981 survey of the site noted sherds of what was later determined to be Afro-Caribbean ware, made locally in the nineteenth and early twentieth centuries, which de Jong might have mistaken for prehistoric plainware. First surveyed in 1923 (Josselin de Jong 1947), Site SE100 was resurveyed in

1981 (Haviser 1981b:136-139; 1981c).

**SE101** This historic artifact cluster was plotted by Barka (1985), but no survey data or other information can be located (see Figure 6).

**SE102** This prehistoric site consists of a few sherds of plainware pottery found in association with several shallow rockshelters on the west-central face of Ossie's Hill, overlooking the Golden Rock site (SE88/89) from the southern slope of the Little Mountains. Haviser interprets this site as an observation post associated with the Golden Rock village, providing a commanding view of the western end of the Cultivation Plain and much of Oranje Bay. Site SE102 was first located in 1981 (Haviser 1981c:9), but no field survey records can be located.

**SE103 - SE105** These three historic artifact scatters were plotted by Barka (1985), but no survey records can be located (see Figure 6).

**SE106** Solitude plantation complex, the former plantation of Pieter Runnels (1775#8), is located in the low basin between Solitude Hill and the southeast arm of Mary's Glory Hill, about 250 m west of the paved road that leads to Zeelandia. This site consists of a mortared stone cistern

with a catchment basin, two rubble piles about 13 ft square, and a probable oven about 10 ft square, all enclosed within dry pile stone walls. Surface artifacts include pearlware, porcelain, stoneware, and green and blue glass. Site SE106 was surveyed and sketched in 1981 (Haviser 1981b:133-135).

**SE107 - SE109** These three site numbers were plotted by Barka (1985), but no survey records can be located (Figure 6).

**SE110** Geleegen, the probable former plantation of Dirk Salomonsz (1775#7), is located about 200 meters south of the Zeelandia ruins (SE111), just west of the road to Zeelandia. The site was plotted and listed by Barka (see Figure 6), but no survey records can be located. The 1775 map indicates the Geleegen plantation in this location, and the topographic map depicts a ruin there. A modern concrete house was constructed on the old foundations.

**SE111** The Zeelandia plantation complex is located on the eastern edge of Zeelandia basin, 100 m west of the paved road. The site includes an animal mill; a boiling house with a modern cinderblock garage attached to its intact northern wall; a domed mortared stone cistern still in use; a small stone structure currently used for storage; a kitchen structure with attached stone oven; and a large house

foundation. The rusted chassis of a narrow gauge railroad car lies on the site; evidently, a narrow gauge railway system existed on the island for a time during the nineteenth century (Lopes 1994). The Zeelandia plantation site was recently acquired from the island government by the owner of the adjacent land in a land trade agreement, and is being fenced off to protect the ruins from vandalism (Collins 1994). This site was surveyed and sketched in 1981 (Haviser 1981:19-23).

**SE112** The Grovell site was plotted and listed by Barka (1985:60) (see Figure 6), but no description or survey record can be found. The 1775 map lists no plantation in this area, nor does the modern topographic map indicate any structure or ruins in this vicinity. Haviser (1981:29-30) crossed the area in the 1981 survey but did not note anything beyond occasional surface artifacts.

**SE113** Upper Venus Bay plantation, possibly the former plantation of Dirk Salomonsz (1775#5), is located in the southern end of the Venus Bay basin about 800 m south/southwest of the shoreline. This site consists of numerous stone rubble piles with some mortar and red brick. Surface artifacts include pearlware, creamware, delftware, porcelain, stoneware, Afro-Caribbean ware, nails, pipestems, bone, green

glass, an iron stirrup, and a pewter spoon. Site SE113 was surveyed in 1981 (Haviser 1981b:131-132).

**SE114** The Venus Bay site, the former plantation of Pieter Cuvelje, (1775#2), is located 75 m south of the shoreline in the center of the Venus basin. This site consists of a mortared stone well with an attached trough and a modern wooden shed. Surface artifacts include green glass and stoneware. This site was surveyed and sketched in 1981 (Haviser 1981b:130-131).

**SE115** This historic artifact scatter was noted just east of the ridge line above Jenkins Bay during the 1981 survey (Haviser 1981b:132).

**SE116** The Tumble Down Dick plantation complex is the probable former plantation of J. Heyliger (1775#10). It is located 500 m east of Tumble Down Dick Battery (SE99) in the SE corner of the basin of the same name. This site consists of two buildings joined to form a sugar mill; both are two stories high with walls intact to the roofline as of 1981. They are built of mortared stone with some red and yellow brick. This plantation was one of the few on the island that continued operations through the mid-nineteenth century. An 1850 account mentions "...Tumble Down Dick, where just under

its eastern side you can see Scutching Hook, a large sugar estate owned by the Martinez family with its ancient halls and sugar mills which are worked by mules" (Peniston 1950:151). The site is in the heart of the Statia Terminals complex and has rubble bulldozed up against the west and south sides of the structure, suggesting that archaeological deposits in the vicinity have probably been destroyed. Site SE116 was surveyed and sketched in 1981 (Haviser 1981b: 143-145).

**SE117** The Pisga plantation site, formerly the plantation of either Dirk Salomonsz (1775#4) or Pieter Cuvelje (1775#3), is located at the southeast base of Pisga Hill within the bounds of the Statia Terminals complex. Although Pisga Hill was recently leveled by Statia Terminals, the ruins are reportedly fenced off and protected (Bennet-Merkman 1994). The site consists of a mortared stone house, a long narrow open top cistern covered with tin sheeting, and a buried yellow brick domed cistern. The house was reported to be in excellent condition in 1981, with its walls and tin roof intact. Surface artifacts include pearlware, creamware, stoneware, porcelain, black basalt ware, delFTWARE, and Afro-Caribbean ware. The 1775 map indicates two plantations in this vicinity, but it is possible that one was destroyed by

early terminal construction activity. The site was surveyed and sketched in 1981 (Haviser 1981b:136-139).

**SE118** The Mansion ruin, formerly the property of J. Heyliger (1775#31), is located on the hill across Lodi Road from the Old Church Cemetery (SE221), just northwest of the intersection of Mansionweg and Lodi Road. This site consists of a massive two-story mansion measuring 60 x 45 ft, built entirely of yellow brick. The surviving walls are 5 bricks thick. The house burned in the late nineteenth century and much of the structure has collapsed. The entire eastern (back) wall remains intact to the roof line, along with the front steps and arched doorway. Huge sections of collapsed wall lie about the property. Franz S. Lampe, a local historian and descendant of the house's last owner, owns many documents associated with this property. Site SE118 was surveyed and mapped in 1981 (Haviser 1981b:150; Jenkins 1981).

**SE119** The Sisal Factory ruin is located south of Oranjestad near the cliff edge overlooking Gallows Bay. It was built ca. 1915-1920 as part of an unsuccessful attempt to establish a sisal growing and processing industry on the island (Hartog 1976:130-131). The site consists of a large stone structure with a substantial chimney; the walls are

intact to the roofline. The site has not been surveyed.

**SE120** This warehouse site on Lower Town Beach was designated SE391 in accordance with the site numbering system applied to that district (Barka 1985:37-41; Kandle 1985:144).

**SE121** This site number was plotted near the Corre Corre Battery site by Barka (1985), but no description or survey data can be located for this site (see Figure 6).

**SE122** A site was plotted in the vicinity of Gilboa Hill and listed by Barka (1985), but no description or survey records could be located. Neither the 1775 map nor the modern topographic map indicates any structures in this area (see Figure 6).

**SE123** This site number was originally assigned to a warehouse excavation in Lower Town, but inconsistencies in the site numbering system in that district make it difficult to ascertain which site this number represents (see Figure 6).

**SE124** This site, a cave near Venus Bay, was apparently investigated in 1981, but no survey information can be located (see Figure 6).

**SE125** Boven plantation, formerly the plantation of A. Pantophlet and J. Heyliger (1775#1), was plotted and listed by Barka (1985), but no description or survey information can be



located. The 1775 map shows a plantation in this area, although the bird's eye perspective of that map makes it difficult to pinpoint its precise location in the northern hills (see Figure 6).

**SE126** An historic site in the northern hills was investigated by archaeologist Jerry Hartley in the early 1980s; no reliable survey information can be located.

**SE127** The Lazareto Leper Colony and Cemetery is located on the north edge of Billy's Gut between Fort Royal (SE96) and the Godet prehistoric site (SE6). This site consists of the living quarters structure and two visible graves. The leper colony reportedly operated between the 1860s and 1920s, but it is poorly documented. Although the site is located just outside the boundary of Statia Terminals property, it is threatened by unrestricted construction activity observed in the area in June 1994. Portions of Site SE127 were mapped and photographed in 1989 (Paonessa 1990: 45-46).

**SE128** Fort Oranje is located in the heart of Oranjestad on the edge of Claes Gut, overlooking Oranje Bay. It originated as an earthen fort built by French explorers in 1629 and was subsequently reinforced by the first Dutch settlers in 1636, when it received its present name. It has

been renovated countless times to serve military, religious, and governmental functions (Howard 1991:187-207). No archaeological investigation has been conducted, but the site is well-documented, being one of the most visible and potent symbols of St. Eustatius' colonial past (Attema 1976:20-26, 43-44, 64; Hartog 1976:20-23, 33).

**SE129** Fort Rotterdam is located on a rise behind the Waterfort (SE94) at about 23 m above sea level. This battery consists of a westward-facing semicircular parapet wall and two associated foundations. All features have been reduced to foundation outlines by years of stone-robbing. The Fort Rotterdam site was surveyed and mapped in 1990 (Howard 1991:257-261).

**SE130** The Concordia plantation complex, the former country estate of colonial governor Johannes deGraaff, is located 40-45 m north of the Concordia well/windmill, to the east of the present airport terminal. As of June 1994, the island government sought to have the site razed to make way for airport expansion, claiming that the present house is not that of deGraaff, but rather was built on old foundations in the 1930s (Woodley 1994). However, two local residents remember the house as having been old when they were

youngsters in the late 1920s (Lampe 1994; Euson 1994). The antiquity of the house was established beyond doubt by excavations conducted in 1994, that traced the walls down to the foundations and revealed seventeenth- and eighteenth-century artifacts in the builders' trench.

The site includes several features: a two-story coursed stone house with attached cistern; an adjacent carriage house fronted with a yellow brick pavement; a well; and an unusual open-top yellow brick structure with a red brick arched opening in one wall, interpreted as a duck pond (Barka 1996:45-46). The two story main house has several modern concrete additions but its core is in excellent condition. The site also includes a boiling house ruin southwest of the house. To the east of the carriage house are a yellow brick chimney, an underground cistern, and three stone pedestals which may have functioned as machinery foundations. A local resident recalls his mother picking cotton on this farm in the 1920s (Euson 1994), a claim supported by a remnant of an early twentieth-century cotton gin noted on the site in 1994. The Concordia plantation complex was first surveyed and sketched in 1981 (Haviser 1981:59-71), then in 1994 it was mapped, photographed, and several test units excavated (Barka 1996).

**SE131** Kongo Cemetery, also known as Duinkerck Cemetery, is located on the east side of Mansionweg near its intersection with Paramira Weg. This reputed former slave cemetery contains only three marked graves. It also probably contains several unmarked graves, as the original rough uninscribed stones may have been subsequently reused for other purposes. Site SE131 was surveyed in 1989 (Paonessa 1990: 43-45), and test excavations were conducted in 1993 (Barka 1996b).

**SE132 - SE216** Not yet assigned.

**SE217** The Jewish synagogue Honen Dalim is located in the heart of Oranjestad on a narrow lane called Synagoge Pad. This two-story yellow brick structure was built by 1739, damaged by a hurricane in 1772, and rebuilt in the same year (Attema 1976:66; Hartog 1976:55-59). It survives as a roofless two-story shell measuring 40.2 x 26.1 ft, with an exterior stone staircase leading to the second floor. The structure has been robbed of many bricks since its abandonment in 1795, but was stabilized in 1982. Excavations in 1983 revealed the subfloor support system and a light artifact scatter. Site SE217 was excavated, mapped, and photographed in 1983 (Barka 1985:47-51; 1988).

**SE218** The Doncker House is located in the historic core

of Oranjestad, northeast of the Government Guest compound (SE219). This two-story house was built of yellow brick in the early eighteenth century and subsequently remodeled several times. At one point, it served as the town home of Governor Johannes de Graaff. One of the best-surviving examples of an eighteenth-century merchant's dwelling, the Doncker House is now home to the St. Eustatius Historical Foundation Museum. Exploratory excavations were conducted in the yard and around the foundations in 1984 (Barka 1985:51-54).

**SE219** The Government Guest House complex is located in the historic core of Oranjestad, across from the gate of Fort Oranje. This complex consists of four buildings within a walled compound measuring 155 x 120 ft. The main structure was converted to government offices in the early 1990s, while another houses the Tourism Agency, and a third serves as the kitchen for an open-air restaurant. While the complex's original function remains unclear, it has been used throughout the nineteenth and twentieth centuries for government offices and to house visiting civil servants and important visitors. Excavations from 1985 to 1990 revealed the subsurface remains of four previously unknown structures dating to the eighteenth

century, filled with debris and artifacts. The excavated subterranean features were subsequently backfilled and lie protected beneath the courtyard. The Government Guest House complex was excavated, mapped and photographed between 1985 and 1990 (Barka 1986; 1989; 1990; Kulesa 1985).

**SE220** The Princess Estate sugar mill site is located just east of the Jewish Cemetery (SE222). On the basis of this location and its large stone-lined sugar vat, the site was long rumored to be the remains of a Jewish mikve, or ceremonial bath (Dethlefsen *et al.* 1982:14; Hartog 1976:59-61). However, archaeological research conducted in 1986 positively identified the site as a sugar refinery. The site consists of an animal mill with a cane crusher lying nearby; a boiling house with a sugar vat, firetrain, distillery, and arched doorways; a cistern with catchment basin; and other structures. The Princess Estate site was cleared, excavated, mapped and photographed in 1986 (Barka 1987).

**SE221** The Old Church Cemetery is located at the southeast corner of the intersection of Mansionweg and Lodi Road. This walled cemetery contains the remains of approximately 130 graves dating from 1686 to the 1980s. It formerly extended to the west across Mansionweg; human remains

were reportedly disturbed when the present hospital was built (Euson 1994). A Dutch Protestant church reportedly occupied the site prior to the construction of the Dutch Reformed Church in 1776 (Paonessa 1990:24). Archaeological remains of this older church may survive, but any testing should be of a non-invasive nature, such as a magnetometer survey or soil resistivity testing. The site was studied and mapped in 1989 and 1990 (Paonessa 1990:23-26; Stettler 1990).

**SE222** The Jewish Cemetery is located just southeast of the Old Church Cemetery (SE221) at the top of Princesweg, and down the hill from Princess Estate (SE200). This walled graveyard served the members of the synagogue Honen Dalim, and contains 32 marked graves dated between 1742 and 1843 (Hartog 1976:59-60; Paonessa 1990:26-27). The gravestone inscriptions were recorded in 1970 (Emmanuel 1970:1053-1065).

**SE223** The Methodist Church and Cemetery is located on de Ruyter Weg between Kaple Weg and Binckers Weg. This stone-walled church, still in regular use, was built in 1843 to replace an earlier wooden structure destroyed by an earthquake (Attema 1976: 114-116; Hartog 1976:114-116). The walled cemetery contains 10 marked graves dating between 1830 and 1958. The grounds and cemetery were mapped in 1989 (Paonessa

1990:27-29).

**SE224** The Dutch Reformed Church Ruin and Cemetery is located on the west side of Kerkweg just south of Fort Oranje (SE128). This imposing stone-walled church was built on the site of an earlier church that had been destroyed by a 1772 hurricane (Attema 1976:65; Hartog 1976:62-64). Completed in 1776, the present structure was damaged by storms in 1792 and 1852 and has not been used for services since 1852, although the cemetery is still in use. The walled-in graveyard contains 109 marked graves dating from 1762 to the present. The St. Eustatius Historical Foundation maintains the property, which is a highly visible and popular tourist attraction. The church walls and tower were stabilized in the early 1980s, and the churchyard was mapped and documented in 1988 and 1989 (Clifford 1988; Paonessa 1990:29-31).

**SE225** The Catholic Church and Cemetery is located at the top of the Slave Path, between van Tonnigen Weg and the cliff edge. This walled-in compound includes both the 1843 church and the present-day church. The newer church was built in 1910 with stones taken from the Lower Town warehouse district (Hartog 1976:116-117). The well-maintained cemetery is walled, and contains 105 marked gravestones dating from 1854



to the present. The cemetery was mapped and studied in 1989 (Paonessa 1990:31-38).

**SE226** The Salem Cemetery, or Government Cemetery, is located north of the Catholic Cemetery (SE225) between van Tonnigen Weg and the cliff edge. This is the public cemetery for any citizen, and contains at least 168 marked graves dating from 1912 to the present. It is surrounded by a cinderblock wall, but is threatened by continuing cliff erosion. The Salem Cemetery was surveyed in 1989 (Paonessa 1990:38-39).

**SE227** The Anglican Churchyard and Cemetery is located northwest of the intersection of de Ruyter Weg and Binckers Weg, between the Methodist Church and a vacant lot. This site contains the foundations of the church and 68 marked graves dating from 1755 to the present, and is surrounded by a wall constructed from a patchwork of materials. Little is known about the history of the church except that the last minister left in 1821. The church structure was long ago reduced to its foundations, but the graveyard is still in use. The site was mapped and studied in 1988 and 1989 (Paonessa 1990:39-41).

**SE228** The Berkel Family Cemetery is located northwest of the intersection of Weg Maar Jeems and Paramira Weg. It

contains several unmarked graves and 11 marked graves dating from 1929 to the present. The cemetery lot, measuring 60 x 75 ft, is maintained by family members and is surrounded by a cinderblock wall. The Berkel family has played a prominent role in the St. Eustatius' Seventh Day Adventist community since the 1920s. The Berkel cemetery was surveyed in 1989 (Paonessa 1990: 42-43).

**SE228-299** Not yet assigned.

[NOTE: Sites SE300-435, comprising the Lower Town warehouse district, are depicted in Figure 5. Descriptions are quoted directly from Barka's (1985) report on the Lower Town warehouse survey. All 135 sites are depicted on the site map (see Figure 5), but the descriptions for Sites SE409-435 were not published.]

**SE300** See Site SE1.

**SE301** Dimensions unknown; stone wall 1.5 ft thick; abuts cistern (SE302) on water side.

**SE302** Cistern. 23.7 x 6.4 ft; oriented parallel to water; walls 2 ft thick; oval interior; 4 ft wide alley between SE301/302 and SE303.

**SE303** A structure measuring 40.7 x 20.2 ft, with 2 ft thick walls; cistern (SE304) on water side of SE303; short dimensions parallel shoreline.

**SE304** Oval-shaped cistern; 20.3 x 6.4 ft; wall is 2 ft thick and abuts SE303. Evidence of arched roof over/

cistern; alley 8.7 ft wide (maximum) between SE303 and SE305.

**SE305** Incomplete, but interior is 20 ft wide. Maybe same dimensions as SE303; 1.5-2.0 ft thick walls. Foundation stones are visible; large stones between water and SE305.

**SE306** Same structure as SE307 or two structures? C. 10.8 ft interior width; length unknown; mortared foundation stones visible 4.5 ft below top of existing wall; 1.5-2.0 ft thick; 'seawall' is about 4 ft thick.

**SE307** 32.3 ft wide and minimum of 36.3 ft long; latter wall is 1.8 ft thick, not straight, and up to 8 ft high; portion of latter wall built of laid limestone slabs or blocks, seawall has non-faced edge on water side and foundation stones are 6.5 ft below ground level; foundation stones extend 2-3 ft lower; width of upper and foundation walls together is about 4 ft. Alley 8 ft wide between SE307 and SE309; edged mortared stone wall parallels the water and is 5 ft thick. Abuts both SE307 and SE309.

**SE308** On road side of SE309; same structure? 36.8 ft interior; SE308 and SE309 parallel water; 1.5 ft thick walls.

**SE309** Trapezoidal shape; 40.5 x 12.4-15.3 ft; 1.5-1.8 ft thick walls. Areas of mortared limestone blocks and cobbles to the south suggest a paved space between SE309 and SE310, which lies 16 ft away. These limestone blocks, each 1.9 by 0.9 by 0.4 ft, form a surface 4.5 ft below the top of the south wall of SE309.

**SE310** Interior of structure is 14.5 ft wide; length at least 30 ft, 1.5 ft thick walls. Structure is perpendicular to shoreline.

**SE311** Short line of wall; no dimensions.

**SE312** Interior length is 59 ft; width not known; parallels shore; mortared stone wall on water side is 2.2

ft thick.

**SE313** One or two structures (with SE314)? Dimensions unknown but minimum of 17 ft (parallel to shoreline) by 7 ft, with 1.5 ft thick walls.

**SE314** 19.8 ft (parallel to shoreline) by at least 8.2 ft; both SE313 and 314 bounded on bay side by a 62 ft long by 2 ft thick stone wall, with occasional yellow bricks and portions of mortared rubble in it. Also, two mortared stone walls (breakwaters?) extend toward the bay from either end of the long wall: from SE313 - 16 ft long by 5 ft thick, and from SE314 - 16.5 ft long by 7 ft thick. A mortared rubble area to the south of SE314 measures 5 x 5.5 ft.

**SE315** Length unknown; width is 8 ft and parallels shore; 1.5 ft thick walls.

**SE316** Interior is at least 23 ft (parallel to road) by 12.3 ft; 1.5 ft thick walls. Separated from SE317 by a 1.8 ft wide space perpendicular to the road.

**SE317** 34 ft (parallel to road) by 20 ft; 1.8 ft thick walls; mortared stone area inside.

**SE318** Minimum of 16 ft (parallel to shoreline) by 11 ft; walls are 2.2 ft thick.

**SE319** Incomplete cistern. Oriented perpendicular to shoreline (unlike SE302 and SE304); probably 6 ft wide.

**SE320** Minimum of 10 ft (parallel to shoreline) by 4.5 ft; 1.8 ft thick walls. One wall abuts (?) SE319.

**SE321** This structure is immediately adjacent to a cistern (SE319); dimensions unknown.

**SE322** 25.8 ft (parallel to shoreline) by minimum of 14 ft; walls are 1.8 ft thick.

**SE323** Length of 40 ft (minimum), but probably oriented perpendicular to shoreline.

**SE324** Perpendicular to shoreline; 37 x 16.5 ft; 1.8-2.2 ft thick walls; south wall is a mystery; really a walkway between SE324 and SE326?

**SE325** Perpendicular to shoreline; minimum of 10.5 x 13.8 ft; 1.5-2.2 ft thick walls.

**SE326** Unsure of dimensions; brick-stone core wall on north; minimum of 31 ft long; cemented stones on bay side; SE328 on east.

**SE327** Oriented perpendicular to the road; 35.8 x 18.9 ft; 2.7 ft thick walls; may include SE328.

**SE328** Rubble area on west side of SE327 - may be part of SE327; plastering over one wall bounding stair area; stairs with an arched area of yellow brick; two storied structure; rubble measures 27 x 14 ft.

**SE329 / 330** This may be one or two structures, with only partial wall remnants. The site is mostly rubble with two corners of walls visible.

**SE331** This unusually-shaped cistern is situated near Bay Road. Its northern 'room' has interior plastered walls with rounded corners; the plaster is 0.5 ft thick; north room measures 20 x 14.9 ft; on northwest side a small offset, possibly a water inlet, made of yellow brick. South room not plastered and no rounded corners. Measures c. 20 x 16 ft; probably a room, not a cistern. SE331 probably a two storied building with cistern below; walls are c. 1.8 ft wide.

**SE332** Large mortared stone area with two wall remnants; rubble measures 17 x 19 ft; near water.

**SE333** Seemingly large structure with two offset entrances or infills on east or road side; north and south walls 2.8 ft thick; building oriented east-west; goes from road to water, if all one building. Measures 38 x 105 ft (north-south); building divided into two halves by very wide (c. 5.3 ft) north-south wall; wall has two equal (c. 6 ft) gaps or doorways; in east half of

SE333 some evidence of small east-west oriented interior wall. In west half of SE333 a probable L-shaped arched cistern. Maximum length of cistern 12.5 ft (north-south) by minimum of 15 ft. Within this structure, near north-south interior wall, a c. 9 x 6.2 ft cistern, divided into two halves by a 0.4 ft thick east-west wall.

SE334 Corner of a structure. Wall c. 2.8 ft thick.

SE335 Wall face with yellow arch brick visible; no measurements possible.

SE336 South of Bay Path, with SE337 to the south; south wall of SE336 is SE337 wall; north wall unfaced; minimum measurements c. 24 ft (east-west) by c. 10.2 ft.

SE337 Structure measuring 45.5 x 20.1 ft. Length oriented east-west; wall c. 2.2 ft in width.

SE338 Series of 4 to 5 east/west-oriented wall remnants; probably several structures.

SE339 Has common wall with SE340; oriented east-west; minimum measurements 32 x 17.5 ft. South wall is 2.2 ft wide and remains to a height of 4.5 ft with seven courses.

SE340 Abuts SE339; measures 18.5 ft (east-west) by 21.2 ft; exterior of west wall is 32 ft to water; north and south walls 2.8 ft in width; west wall is 4 ft wide; north wall is 3.4 ft high (4 courses); ledge of foundation (?) is 3.4 ft below top of north wall.

SE341 Standing warehouse with basement; one story; exterior measurements are 43.6 x 24.3 ft; interior is 39 x 19.8 ft; oriented north-south; walls c. 2 ft thick. On east side entrance walls and gaps of yellow brick and volcanic stone; entrance to cellar on south side is 5.5 ft wide; brick walls frame sides of entrance, with an additional cobble wall on east side.

SE342 GEBE building (Electric generator). Present structure is 60.5 ft (north-south) by 229 ft. North

portion is old and south portion is a recent addition. Walls are c. 1.5 ft thick.

**SE343** Standing warehouse. "Happy Hooker". Exterior measurements 52.5 x 32.2 ft. Oriented northwest-southeast. Modern porch added to west side (water side).

**SE344** Adjacent to SE337. Oriented north-south, but skewed; measures 43.4 x 16.5 ft; probable two-story building with steps on south side; cellar entrance offset on south side; walls c. 1.5 ft wide; cellar partially filled, with joist holes visible in course 3 of stone (above ground surface) of east wall; plaster facing visible on interior east wall above joist holes; present east wall consists of 17 courses of stone above ground level.

**SE345** East of SE344, sort of parallels SE344. Measures 32 x 17.2 ft; walls are 1.5-2.2 ft wide; 0.5 ft joist shelf visible on 3 walls; cellared structure, with entrance to cellar probably on west. East wall is presently 16 courses of stone high, with joist holes visible in course 6 above ground; walls plastered above joist holes. Wall extends outward from south end of building.

**SE346** Large cistern, c. 24 ft wide, oriented east-west.

**SE347** Standing two story yellow brick warehouse. Long, strangely-constructed structure with at least two building stages. Total exterior length is 77 ft; oriented east-west. Three parts: 347A, 347B, and 347C. In 347A and 347B, long walls are not parallel. SE347A, or west side, has cellar with entrance along northwest side on north side of stairway; cellar entrance is 2.6 ft wide; stair leads from road to first floor; stairs are 4.4 ft wide; seven steps each 0.95 ft run with 0.6-0.7 ft rise. Long walls of SE347A are not parallel; c. 1.5 ft thick. Three windows on north side, two windows and one doorway on south wall; interior of 347A is 11.5 to 15 ft wide by 28.5 ft long. On north side, between 347A and 347B, corner on north side but not south side; bricks keyed in; north and south walls of 347B each have two

windows and one doorway; interior is 13 to 14.5 ft wide by 17.5 ft long. SE347A and 347B built as one unit by a drunk Dutchman. SE347C is a separate unit added to 347B; west wall skewingly aligns with but interrupts east wall of 347B; bricks of 347B and 347C are not keyed in. SE347C has two windows in north wall, none in south wall; entranceway in west wall; brickbat and stone floor; interior measures 21.2 x 10 ft. SE347 burned recently (as of 1985); wire nails visible in burned joists indicate that present interior was built in twentieth century.

**SE348** Rectangular building oriented north-south; is at angle with both SE347 and SE349; north wall does not fit against SE347, but both walls are at angles to one another. Stairway outside northwest corner of SE348 leads to second story of SE347C consisting of 10 steps with 0.9 ft rise. Walls are 1.5 ft thick. Stone walls (except east wall) are standing to a height of c. 10 ft.

**SE349** Excavation site SE19, situated between SE348 and SE350. Probably two or three structures here at different times.

**SE350** Oriented north-south, but at slightly different angle than SE348. East wall a high yellow brick wall, 1.5 ft thick; minimum measurements 42 x 27.6 ft.

**SE351** Parallels SE350. Only one corner known.

**SE352** Cellared structure with cellar floor 5-6 ft below present ground surface; 0.3 ft wide joist ledge in south interior wall. Red brick walls 1.5 to 1.8 ft thick; doorway to cellar near southwest corner in west wall, leading through SE347 to road which is 33 ft away. Dimensions 22.2 x 15 ft; oriented north-south. Another doorway leads to SE355.

**SE353** Small yellow brick feature, seemingly a wall with two corners. Maybe connected to SE354?

**SE354** Cellared building in complex situation. Stone walls only visible in cellar portion. North wall not



clear; it is either Wall B or south wall of SE352; interior measurements to Wall B are 32.2 ft (north-south) by minimum of 11.5 ft; east wall probably interrupted by recent (1910) structure (SE358). Two probable yellow brick ovens associated with SE354; one is in southwest corner, measuring 0.8 x 3 ft, with rounded upper surface; 2 x 1.6 ft opening on east side; and yellow brick chimney with 0.65 x 0.75 ft flue; 1.5 ft diameter iron pot lid sits on oven; oval shaped handle on pot measures 0.9 x 0.5 ft exterior. A second possible oven is situated between SE352, SE353, and SE354; has vaulted yellow brick top; measures 9.5 ft by a minimum of 4 ft.

**SE355** Possibly portion of SE352, since doorway connects the two. A second doorway under south wall near southeast corner measures 3.6 ft wide by 4.5 ft high; floor level is at road level; relationship between SE355 and SE356 unknown.

**SE356** Standing structure owned by Old Gin House Motel. Exterior measures 32.8 ft (north-south) by 29.2 ft.

**SE357** Bounded by SE356, SE355, SE352, SE358, and road. Floor is at road level. Oriented east-west; measures minimum 26 x 12.2 ft; east and south walls of yellow brick; north wall is formed from south wall of SE356. Two levels of floor joists in south wall and one or two levels in north wall. First level of joist holes is c. 7.1 ft above present ground level.

**SE358** Oriented north-south; 39.4 x 18 ft.; walls c. 2 ft thick. Presumably built in 1910.

**SE359** Incomplete. Shares common walls with SE357 and SE358; minimum measurements 41 ft (north-south) by 12 ft. Maybe not a structure?

**SE360** SE360, SE361, and SE362 are difficult to discern due to presence of modern sheds, boats, brush, etc. Seems to be three parallel long structures; oriented east-west; 30 ft from water's edge. SE360 measures c. 55 x 10.5 ft with walls 1.8 ft thick. No interior walls are visible. A large modern metal shed occupies the western

two-thirds of the site; east edge of SE360 is 4 ft from the present road. Cobble stone and a faced wall lie between SE360 and road.

**SE361** Possible building, or space between SE360 and SE362; probably c. 55 ft (east-west) by c. 12.5 ft wide. Common walls with SE360 and SE362. Arched entrance on east end. Walls are c. 1.8 ft thick.

**SE362** Oriented east-west; common wall with SE361; 17 ft wide by minimum 35 ft long, walls 1.8 ft thick. The Old Gin House terrace is 10 ft to south.

**SE363** Flat mortared area bounded on west and south sides by mortared stone; evidence of one corner area measures 35 ft (north-south) by maximum 7 ft. Lies c. 11 ft west of brick portion of SE343.

**SE364** Cistern of yellow brick exposed by bulldozers on June 23, 1982.

**SE365** Small portion of east-west stone wall exposed by bulldozer on June 23, 1982.

**SE366** Remnant of east-west oriented yellow brick wall measuring 10.5 ft long by 1.5 ft thick; minimum of 10 courses. Exposed by bulldozer on June 23, 1982.

**SE367** Wall-corner complex maybe related to SE366. Exposed by bulldozer June 23, 1982.

**SE368** Small remnant of yellow brick wall; 1.8 ft thick; oriented east-west. Exposed by bulldozer June 23, 1982.

**SE369** Remnant of yellow brick wall; oriented east-west; 6 ft long by 1.8 ft thick. Exposed by bulldozer June 23, 1982.

**SE370** One or several structures of yellow brick walls and mortared stone; overall exterior 21 ft (north-south) by 25 ft; walls 1.5 ft thick. Divided into 3 or 4 rooms or areas: an east chamber filled with yellow brick and mortar fill, measures 12.5 ft (north-south) by 14 ft. A

west chamber measures 12.1 ft (north-south) by 4.6 ft, with a shelf on south end; room has flat mortared small-stone floor. To south of larger room is a mortared stone area with an irregular east-west yellow brick wall paralleling south wall of large room. A modern concrete platform is to immediate east of SE370; much heavy brush to east and south.

**SE371** Corner of building with remnant of arched yellow brick oven in southwest corner.

**SE372** South portion of north-south oriented structure; may be part of SE371; walls 1.6-1.9 ft thick; interior width is 9 ft. Yellow brick construction 3.5 ft above floor in southwest corner. Thick wall (c. 3.8 ft) seems to join SE370 and SE372(?) running north-south.

**SE373** Incomplete, oriented east-west; c. 8.8 ft wide. Water lapping up to structure; built on and abutting the "seawall" (SE374). Cross-section of north wall shows following construction from bottom to top: beach rocks overlain by c. 2.5 ft thick wider layer of mortared rock; with foundation of mortared stone built on top; foundation is narrower than rock layer and is 3.5 ft high. Walls are 1.3 to 1.7 ft thick and are built on top of foundation; present north wall projects 6 ft above foundation. The foundation shelf extends around interior of building.

**SE374** Possible seawall. Extends north-south along water's edge for 73 ft; not perfectly straight; made of large stone and coral core with faced mortared stone exterior, wall is 7.4 ft thick.

**SE375** Possible seawall. Not in line with SE374, but c. 3 to 4 ft east; measures 5.8 ft thick. May not be a seawall but west wall of a structure; in fact, southwest corner of ~~SE375~~ SE375 has south wall keyed to the wide seawall.

**SE376** Separated from SE375 by 4.5 ft wide alleyway(?). Long narrow building oriented east-west, 33.5 x 6.5 ft; north wall is 2.2 ft thick, south wall is 1.6 ft thick, west "wall" is 4.6 ft thick. Eastern two-thirds of north

wall incomplete and unfaced; western third is limestone block construction. NOTE: wide (4.5 ft) western borders for SE376, SE377, and SE378 maybe seawall for these structures. Large one-piece "stone" (c. 45 ft long) is to immediate west of seawall.

**SE377** Structure has common walls with SE376 and SE378; possible north-south interior wall. South wall is 1.3 ft thick, with western 6 ft narrowing to 1 ft thick; limestone block construction. Alcove-type feature in northwest corner; inset construction.

**SE378** Structure measuring c. 16 ft (north-south) by 17.5 ft. North and east walls unfaced; north wall is 3.8 ft thick. South and east walls are 2.5 ft wide. West wall is seawall (see above).

**SE379** East-west wall remnant.

**SE380** Several elevations of mortared stone and several mortared stone areas faced to form straight (wall) lines. Might be 1 to 3 structures. Maximum measurements 29 ft (northwest-southeast) by c. 34 ft.

**SE381** Cistern with interior measuring 20 x 5 ft. Numerous vents along planes. Exterior measurements c. 24.5 x 11 ft.

**SE382** Amorphous structure west of cistern. One east-west oriented wall extends for 21.5 ft west of cistern area.

**SE383** Located east of Bay Road and 50 ft from edge of vertical cliff; One north-south oriented stone wall remnant is 1.5 ft thick. Two iron cannon are present, lying perpendicular to wall; each measures 8.7 ft long by 1.6 ft diameter (breach end) and 1.0 ft diameter (muzzle end).

**SE384** East-west stone wall remnant, 1.5 ft thick.

**SE385** Incomplete stone walls of one or two structures; walls are 1.6-1.9 ft thick; stone construction with areas

of yellow brick; some limestone blocks in evidence. One structure or room measures 17.3 ft wide (east-west).

**SE386** Cistern, complete with arched roof; oriented roughly north-south; 32.5 ft long; width undetermined due to overlying soil on east side, but at least 10 ft including 2.2 ft thick west wall. North end has 5.2 ft visible width and yellow brick construction. Four top openings: one on north end is 1.9 ft square; a second at 1 ft south along eastern edge is 0.6 ft square; at south end in middle a 1.0 ft square opening juts inward; a fourth measuring 0.7 ft square is along west side near wall.

**SE387** Structure with features associated with it and/or with SE386. An east-west oriented wall (2.5 ft thick) extends from northwest corner of SE386. To immediate south is a low arch of yellow brick with mortared stone over brick; a possible cistern drain. Adjacent to it and SE386 is a mortared stone area with area of smooth mortar. A faced stone wall lies to the west.

**SE388** East-west oriented structure with faced stone wall remnants; interior width is c. 16 ft. A 2 ft wide alley runs between SE387 and SE388, and between SE388 and SE389.

**SE389** East-west oriented structure with faced stone wall remnants and probable interior joist supports. Interior width c. 26 ft. Maybe two structures are represented here.

**SE390** Structure oriented east-west; interior width c. 28 ft, with probable interior joist shelf along north wall; 2 ft wide alley between SE389 and SE390.

**SE391** Excavated warehouse site SE120. Incomplete structure, probably oriented east-west. Measures 21 ft (north-south) by minimum of 19 ft; walls are 1.6 ft thick. Test trench dug through center of structure in 1982.

**SE392** Incomplete; probable structure, as footing on

south wall of SE390 extends to west wall of SE391.

**SE393** Possible structure.

**SE394** Structure oriented east-west along water's edge. Foundation stones partially evident, probably contacting SE395; but probably 1.5 ft gap between upper walls. Northwest interior wall is curved; may indicate a cistern. Measures 14 x 22.5 ft maximum; several limestone blocks evident in west wall.

**SE395** Cistern; interior 8.5 ft by minimum 26 ft long; maximum width 12.5 ft. Eroded areas to south of SE395.

**SE396** Complex of mortared stone and red brick wall; may be several structures. Long red brick wall over limestone block foundation; roughly oriented east-west; two bricks thick; 5 courses high above mortared rubble / limestone block foundation. Measures 40 ft (incomplete) by 1.5 ft thick. Finer white mortar for red brick areas, coarser greyish mortar for stone. In western third of north edge of red brick wall, cut limestone blocks measuring 1.1 x 1.0 ft are laid over mortared stone. Mortared stone area extends north and west of red brick wall; some mortared stone areas are faced.

**SE397** Portion of probable structure with seemingly thick walls (3-5 ft); interior measures 12.5 ft (north-south). Probably oriented east-west. Gap of 6 ft between SE397 and SE398. Mortared "wall" 5 ft wide continues in line with west wall.

**SE398** Fragment of long east-west wall, faced on north side, present length is 40 ft (extends into sea) by 5 ft thick.

**SE399** Dunker's warehouse. Portions of it are old; north and part of west walls built on old foundations; exterior measures 60 ft (north-south) by 44 ft.

**SE400** Several faced stone walls under northwest corner of SE399. Mortared stone, limestone blocks, red brick areas.

**SE401** Probable seawall. Portion of structure juts out in center area beneath west wall of SE399; built of mortared stone with faced west and north portions; measures 3.2-4.0 ft thick. West wall runs north-south for 65 ft before abutting SE402 and SE403, which continues southward to the modern pier. Total length of probable seawall is 130 ft.

**SE402** Mortared stone wall with one faced edge and a red brick arch area measuring 14.2 ft (east-west) by 6 ft.

**SE403** Possible seawall. A corner is formed where it meets wall of SE401, so this may be part of a structure. Wall is 3.6-3.8 ft thick, 65 ft long before it abuts the modern pier.

**SE404** Cistern to immediate east of SE403; interior measures 30.2 ft (north-south) by 8.4 ft; overall measures 34 x 14 ft. Wall on east side is thicker; small offset on east side. Opening measures 2.35 x 1.75 ft; lined with pink plaster.

**SE405** Wall remnant oriented east-west, 1.5 ft thick, perpendicular to SE403 seawall.

**SE406** Located south of small pier, a wall fragment oriented east-west is 27 ft long.

**SE407** Cistern; incomplete, interior measures 23.3 x 8.4 ft.

**SE408** Located south of SE1 (warehouse excavation) and immediately north of Bay Path; yellow brick structure; northeast corner and north and east walls only. East wall 2.4 ft thick, north wall 1.7 ft thick. Minimum measurements 34 ft (east-west) by 18 ft.

**SE409-435** [Site descriptions not published]

## CHAPTER 5:

### RESEARCH SUMMARY AND RECOMMENDATIONS

Archaeological and architectural research on St. Eustatius has documented over 280 sites and structures whose value as cultural resources worthy of study and preservation is considerable. As the physical manifestations of the island's rich and varied history, these sites provide St. Eustatians with tangible links to their shared heritage and scholars with vital information for addressing a wide range of anthropological and historical issues. Considering the island's former role as a trade center for the Caribbean and North American colonial sphere, the potential for comparative studies and even direct links with former colonies is vast.

This chapter summarizes the archaeological sites described in Chapter 4 within the prehistoric and historic contexts presented in Chapter 2. The results of previous research projects discussed in Chapter 3 serve as the basis for some specific recommendations for future research.



The large volume of data that has been compiled on the island's archaeology can be most effectively managed if the sites are categorized in broad groupings that reflect similarities in form, function, location, and time. A matrix of historical periods, archaeological site types, and related research topics has been developed to facilitate the evaluation of the archaeological sites in terms of the historical events that influenced their development.

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<u>Date</u>	<u>Site Types</u>	<u>Research Topics</u>
?-800 AD	Prehistoric sites	Culture chronology, lifeways, processes of change, abandonment
1636-today	Plantation Sites	Agriculture, sugar production, slavery, rural domestic life, industrial architecture, economic and demographic shifts
1636-1816	Military sites	Defense, garrison life, military technology
1636-1816	Commercial trade sites (Warehouses, seawall, & shipwrecks)	International commerce, smuggling, ship construction, material culture, architectural style and variation
1636-today	Urban sites (churches, government buildings, cemeteries, residences)	Town life, social relations, urban studies, material culture, religion, government

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These categories are necessarily broad, but with the historical and anthropological information presently available, they suffice as a framework for developing research priorities and management recommendations. Historic artifact

scatters and certain rural sites with contradictory or sparse documentation are not addressed in the following analysis. The following presentation summarizes the major thematic groups of documented archaeological sites on St. Eustatius and suggests research priorities for each group.

#### PREHISTORIC SITES

Archaeology provides the only source of information for the long period between the earliest human incursions into the area, generally considered to have begun around 2000 B.C., and the arrival of Europeans in the region in 1492. This period is represented on St. Eustatius by only eleven known sites: SE6, SE29, SE36, SE72, SE73, SE80, SE82, SE87, SE88/89, SE100, and SE102 (see Figure 4). These sites consist of a variety of types: a lithic scatter (SE29), a midden containing artifacts and faunal remains (SE6), a cache of tools (SE36), and the buried remains of an entire village (SE88/89). With the exception of the Golden Rock village site (SE88/89), prehistoric sites are located along the island's periphery near cliff edges or on the shore. The Golden Rock site was excavated and thoroughly documented, providing a vivid picture of Saladoid culture at the peak of the island's prehistoric

occupation (Versteeg and Schinkel 1992). The other prehistoric sites were described by Haviser and placed in a cultural-historical framework (Haviser 1981c). Most have not been reexamined since they were identified in 1981; therefore, further study of the island's prehistoric resources is strongly recommended.

If Haviser's (1981c:14-15) assessment of the Corre Corre Bay site (SE29) is accurate, then it is an extremely rare and important site that should be accorded high priority for further study. The outcome of a dig planned at the site by Versteeg in 1994 is not yet known, but will hopefully shed new light on a poorly-known phase in the peopling of the region.

While Site SE29, located in a remote part of the island, is relatively safe from disturbance, the Godet Site (SE6) is threatened by erosion from Billy's Gut and potential impacts from nearby construction activity. Situated between the Little Mountains and the Lower Town cliffs, Billy's Gut is the only place on the leeward coast where the Cultivation Plain slopes gradually down to the shore, and as such the area has a high potential for future development. Any planned construction activity in this area should be restricted until Site SE6 and the nearby Lazareto Leper Colony site (SE127) can

be studied.

The remaining known prehistoric sites (SE36, SE72, SE73, SE80, SE82, and SE102) are in peripheral areas with little threat from development, although they should be re-evaluated and checked for possible erosion damage. Another objective should be to locate deJong's Area G (see Figure 3), which has not been documented since its initial identification in 1923. Finally, the Concordia site (SE87) should be reinspected to determine whether any deposits survived the construction of the airport.

#### PLANTATION SITES

Sites, structures, and landscapes related to plantation agriculture and sugar production are the most geographically widespread of any site type on St. Eustatius. Most of the rural plantations were documented at a rudimentary level during the 1981 pedestrian survey with a brief description and a rough map of visible above ground ruins (Haviser 1981; 1981b). Distributed across the landscape on every parcel of arable land, as many as 81 plantations were engaged in the production of sugar in the late eighteenth century (Delle 1989:179). Clear records exist for 59 plantation sites

(Figure 9), 12 of which include sugar mills (SE7, SE10, SE37, SE45, SE51, SE86, SE91, SE92, SE93, SE111, SE116, and SE220). Although most plantation sites consist of little more than a domestic structure and a cistern, sugar mill complexes include several specialized closely-spaced structures for different phases of sugar production.

Eleven other plantation sites are mentioned in reports or archaeological site lists, but since basic information is either contradictory or nonexistent, they are not depicted in Figure 9. These 11 sites are: SE59, SE74, SE84, SE107, SE108, SE109, SE112, SE121, SE122, SE124, and SE126. Additional survey is required to document and evaluate these sites as well as any unlocated sites depicted on historical maps. As sites are identified and evaluated, new information can be incorporated into the existing site catalog.

Four studies in particular have gone beyond the basic survey and identification stage to examine substantive issues related to plantation agriculture and the sugar industry. Twelve previously identified plantation sites were reexamined and mapped in 1988 by James Delle, who employed a spatial analysis to illustrate how the Fair Play plantation (SE10) survived the economic decline of the early nineteenth century

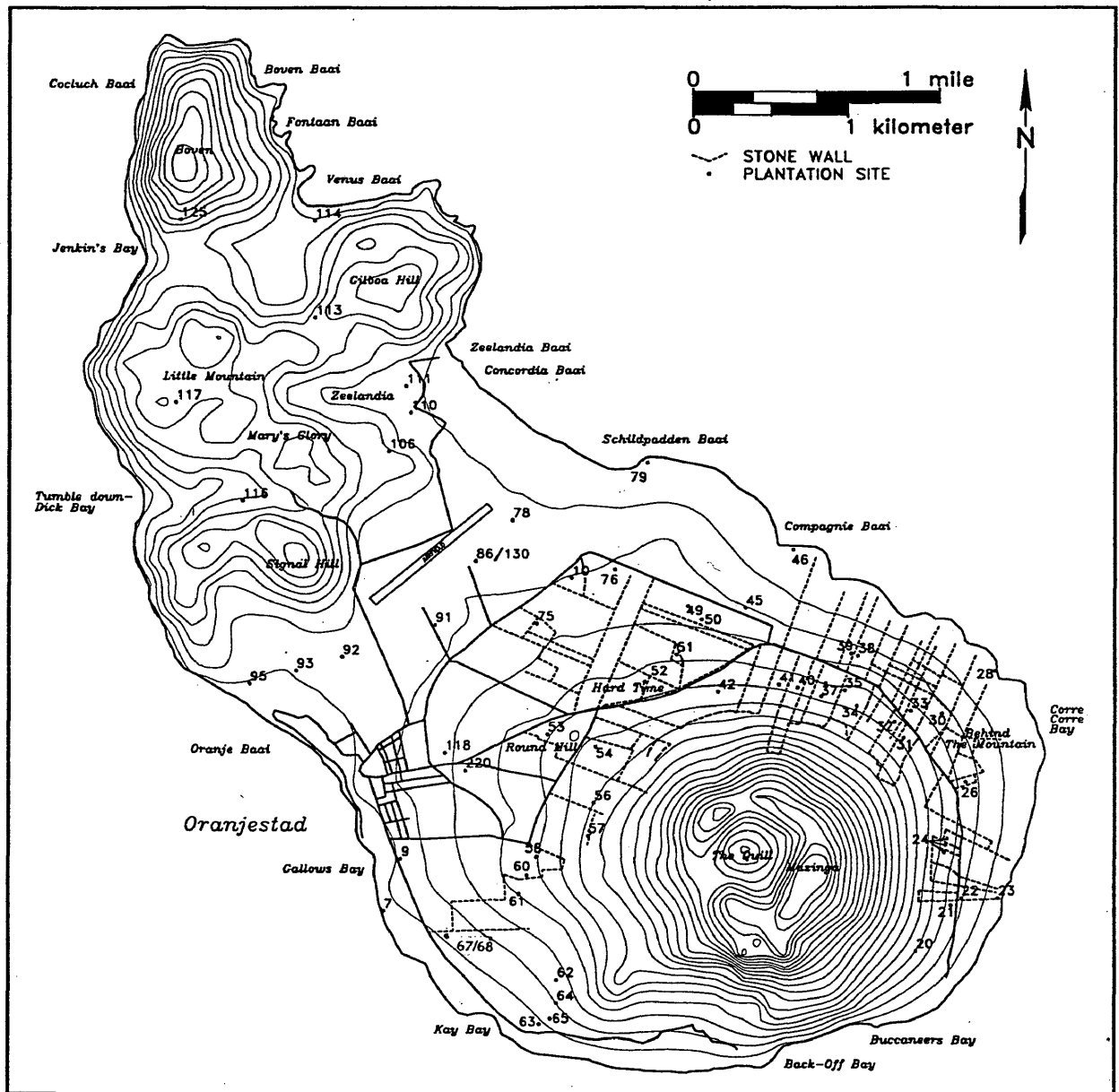


Figure 9.  
Plantation Sites

through a calculated effort to increase productive efficiency (Delle 1989:180). Similarly, Linda France's study of the nineteenth-century English Quarter plantation (SE45) highlighted the importance of innovation and adaptation in what had generally been perceived as a static industry (France 1984:253). Barka's excavation at Princess Estate (SE220) refined our understanding of eighteenth-century sugar production technology and refuted a popular myth by showing that what had been thought to be a Jewish ceremonial *mikve* was in fact a component of a sugar refinery (Barka 1989).

Most recently, the 1994 study of the Concordia plantation (SE86/130) demonstrated beyond doubt that the house and associated features at that site once belonged to Johannes de Graaff, the wealthiest and most illustrious figure in the island's history. In addition to this important historical association, Concordia includes the only surviving eighteenth-century structures in the countryside, and two of but a handful remaining on the entire island (Barka 1996:46-47). This unique and significant site warrants preservation and further study.

While a great deal of important work has been accomplished, much remains to be done. Recommendations for

future research of St. Eustatius' plantation sites include four main objectives: a resurvey and evaluation program, standardization of site records, an intensified effort to identify sites related to slavery, and a comparative analysis of certain features found at both rural and urban sites.

The rural plantation zone needs to be resurveyed, as most sites have not been reexamined since their initial identification in 1981. A global positioning system (GPS) could be used to pinpoint a central datum point in order to accurately map each site. This would provide precise locations that could be incorporated into a comprehensive geographic information system (GIS) that would benefit both government planners and researchers (Wandsnider and Dore 1996:16-18). Each site should be cleared of heavy overgrowth, exposed features should be mapped, and survey should be completed using shovel tests to reveal subsurface features and site boundaries. One or two larger units could then be excavated to assess stratigraphic integrity, site chronology, and the research potential of each site. Only then will researchers and planners truly have adequate information upon which to base future decisions.

A standardized information file for each site should



include all site measurements, maps, photographs, artifact catalogs, and other associated documentation. Site designations which refer to more than one site should be renumbered so as to give each historic site its own number. For example, Site SE24 encompasses three separate 1775 plantations owned by different individuals. Improving the quality of information would make the archaeological record a more effective tool for achieving research and management goals.

Another key objective of the rural plantation zone resurvey should be to locate the remains of slave quarters at plantation sites. Considering that slaves and their descendants have constituted the majority of the Caribbean population since the seventeenth century, the study of slavery in the Caribbean would benefit from archaeological investigation of the places where they lived, worked, and died. In addition to the social benefits of providing slaves' descendants with a tangible link to their shared past, the study of slave quarters can provide vital clues to slave lifeways, diet, health, and the variable retention of African traits among this historically-silent majority (Singleton 1988:348-349). Slaves' use of impermanent construction

techniques and materials for their dwellings suggests that the architectural remains would be sparse, but once a pattern becomes evident, slave quarters should prove to be both abundant and significant sites.

An important site related to slavery is the remains of the 1726 slave house within the walls of the Waterfort (SE94). With its documented ties to the international slave trade of the colonial period, the slave house should be of great interest to scholars of the African diaspora and to descendants of former slaves. The location of the site is well-marked by the surviving walls of the Waterfort, and the former appearance of the structure is clearly depicted in eighteenth-century sketches (Attema 1976: Plates 7 & 8). An examination of available historical data should facilitate a well-planned test excavation that would provide important new information for a wide audience. Because many of St. Eustatius' citizens are descendants of former slaves, advance consultation between archaeologists and concerned citizens would be recommended in order to address their concerns, but if carried out with the proper sensitivity such an undertaking would benefit everyone involved.

As a final component in the plantation resurvey, the

observations of Ross Harper (1990) on water cisterns and Maria Monteiro (1990) on stone ovens should be compared with similar features in the rural areas. Both Harper and Monteiro conducted their research in currently-occupied portions of Oranjestad, but the cisterns and ovens at colonial period plantation sites have not been studied. While cisterns seem to be a ubiquitous feature at rural plantations, baking ovens are only occasionally noted in the survey records. The reasons for this disparity should prove to be a worthy topic for anthropological investigation.

#### MILITARY SITES

Undoubtedly, the forts and batteries built during the seventeenth and eighteenth centuries are the best documented class of cultural resources on the island. Bryan Howard's 1991 M.A. thesis provides a solid basis of historical research and archaeological documentation upon which government planners and researchers can base future decisions. Howard researched, mapped, and described the 14 known military sites and assessed the possible existence of ten additional sites inferred from historical records. The documented military sites are: SE8, SE27, SE44, SE66, SE69, SE71, SE81, SE94,

SE96, SE97, SE98, SE99, SE128, and SE129 (Figure 10). The ten unlocated sites are: Gilboa Hill Battery (Howard 1991:208-209), Fort Hollandia (Howard 1991:243-244), Battery Frederick (Howard 1991:277), Turtle Bay Battery (Howard 1991:306), Fort Teitchy (Howard 1991:318-320), Battery Bourbon (Howard 1991:321-322), Battery Cochan (Howard 1991: 323-325), Cocoluch Bay Battery (Howard 1991:326), Venus Bay Battery (Howard 1991:327), and Powder House (Howard 1991:328).

The 14 documented sites were discussed by Howard in the context of eighteenth-century military theory and the broad historical patterns that influenced their construction and subsequent abandonment. Most of the military sites were built during the mid to late eighteenth century by trained military engineers whose objective was to prevent an enemy's forces from landing and controlling the island's wealth. Due to the repeated renovation and renaming of fortifications by the French, English, and Dutch during the many changes of authority in the 1781-1816 period, it is often difficult to determine which battery was built by whom.

Howard's recommendations for future studies of the island's military sites include documentary research in European colonial archives, archaeological investigation of

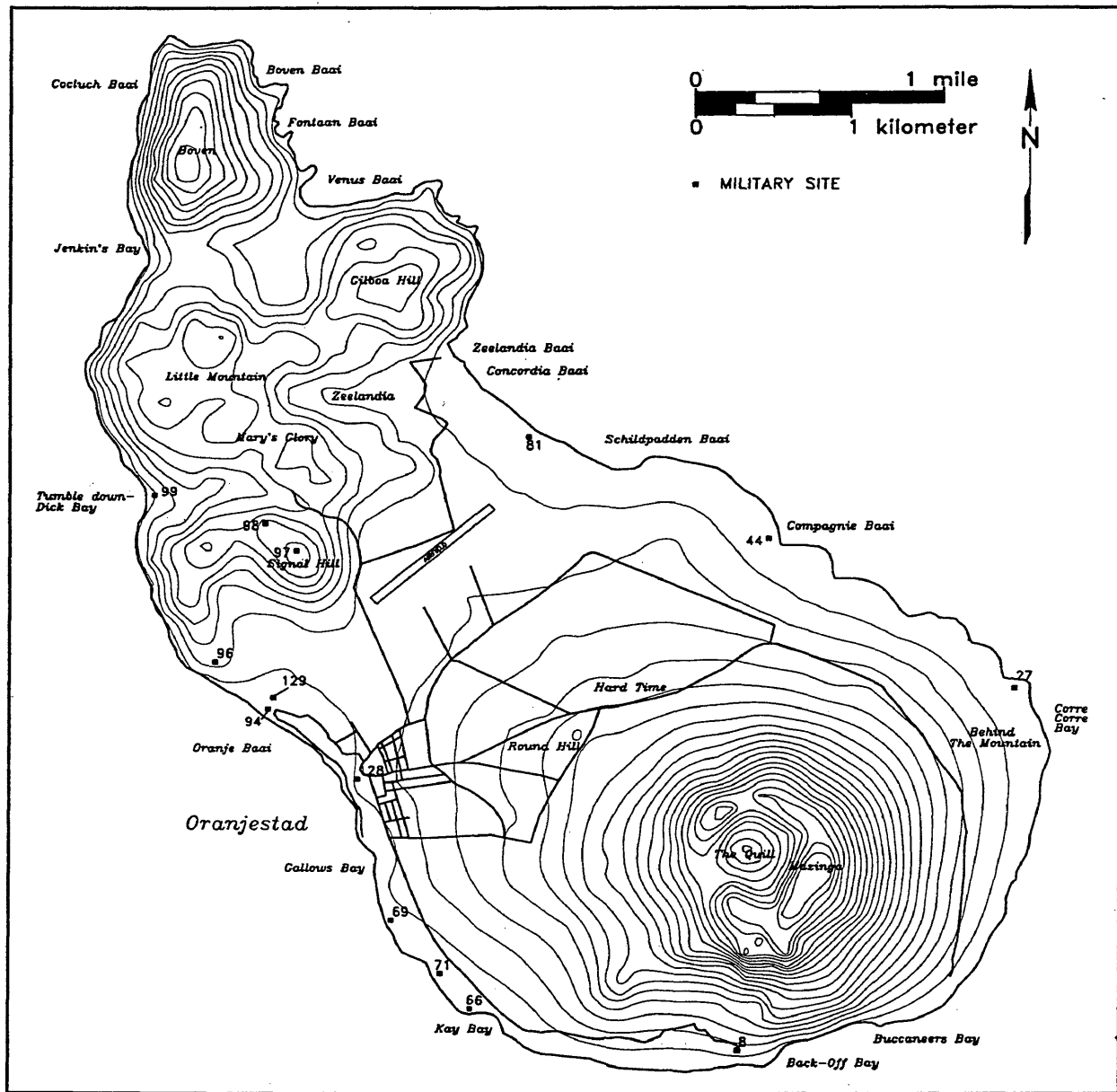


Figure 10.  
Military Sites

Fort Oranje (SE128) and Fort Rotterdam (SE129), and testing of possible barracks features at some of the outlying batteries. These steps would facilitate comparative studies between St. Eustatius and other contemporary military sites throughout the Caribbean to reveal patterns in the material culture and everyday lives of garrison soldiers and colonial militia (Howard 1991:349-350).

#### COMMERCIAL TRADE SITES

St. Eustatius' role as a commercial entrepot during the colonial era is still well-evidenced in Lower Town despite rampant stone-robbing during the nineteenth and early twentieth centuries that reduced the once-bustling district to a series of foundation outlines. Barka's survey documented the visible above-ground remains of 135 structures (see Figure 5). Many more sites likely lie buried under a thick mantle of debris from the cliffs above (Dethlefsen et al. 1982:13). Built and inhabited by merchants from across Europe and the Americas, Lower Town offers a unique opportunity to study architectural variation, all levels of commercial activity, and many aspects of everyday life in a thriving, bustling international community. Because much of the commercial



activity was illegal, and thus unrecorded, Lower Town has the potential to provide important information not available to historians (Dethlefsen et. al. 1982:13). Having suffered from very little modern development, Lower Town is arguably one of the best-preserved eighteenth-century trade districts in the Caribbean. Additional testing is recommended to further explore the research potential of specific sites within the district.

Two important components of St. Eustatius' commercial trade heritage lie beneath the waters of Oranje Bay. In the zone immediately offshore, the stone seawall constructed by slave labor in the eighteenth century has been surveyed and mapped (Passalacqua 1987), but several inundated warehouse and dock foundations may not have been documented (Dethlefsen 1982:82). The location of the historic anchorage zone has been delineated through underwater survey (Nagelkerken 1984), and at least 38 shipwreck sites have been identified in subsequent surveys (Bequette 1986; 1988; van 't Hof 1993). Each wreck should be catalogued and evaluated to document its exact location, size, and condition before more specialized studies are undertaken. Questions concerning aspects of ship construction, trade patterns, and the everyday life of seamen

could be explored by studying the shipwrecks on the floor of Oranje Bay.

References to St. Eustatius as a center for both legitimate trade and smuggling abound in the archives of many colonial port cities (c.f. Crane 1992, Doerflinger 1986), in addition to the WIC archives in the Hague (Israel 1989; 1995). Archaeologists Peter Schmidt and Stephen Mrozowski (1988) analyzed the records of Newport Rhode Island merchants, revealing aspects of smuggling which could be tested through archaeological investigations of the shipwrecks in Oranje Bay. Colonial archives on both sides of the Atlantic could provide a wealth of contextual information to illuminate further study of the island's maritime and commercial history. While many presently available historical studies mention St. Eustatius tangentially, no comprehensive scholarly history of the island's role in the international commerce of the colonial period has been written.

#### URBAN SITES

The last major class of historical archaeological sites on St. Eustatius are those related to what has been called "town life" (Dethlefsen 1982:77). These include government



buildings, churches, cemeteries, residences, and other tangible features that can provide information about past lifeways and cultural processes. Significant progress has been made in the study of town life in Oranjestad. Fourteen individual sites in town have been documented in archaeological studies and assigned site numbers: SE2, SE128, SE131, SE217, SE218, SE219, SE221, SE222, SE223, SE224, SE225, SE226, SE227, and SE228 (Figure 11). Fort Oranje (SE128) is discussed here as well as in its military context due to its location in the heart of town and its primary function for much of the last two centuries as the center of government.

The first archaeological site examined in Oranjestad was a trash disposal area containing several unmarked burials (SE2) that was excavated in 1981. This site provided researchers with baseline data on the material culture of the colonial period and revealed victims of a 1776 smallpox epidemic (Dethlefsen 1982: 78).

Subsequent excavations at the Jewish Synagogue (Barka 1988) and the Princess Estate (Barka 1987) contributed to our knowledge of the eighteenth-century Jewish community, which was instrumental in the island's commercial growth and which has since disappeared from Statian society.

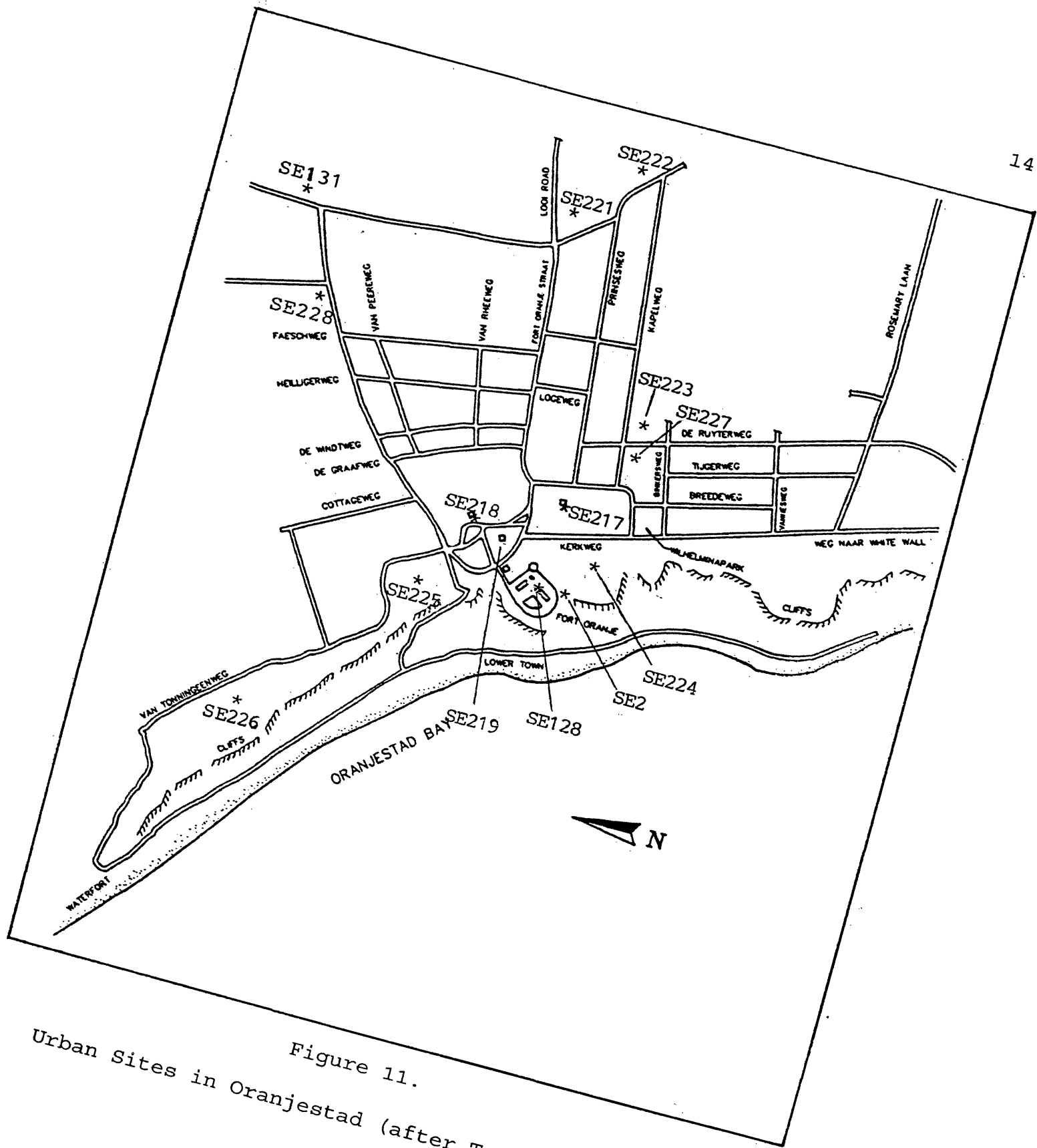


Figure 11.  
Urban Sites in Oranjestad (after Triplett 1995)

Patricia Kandle (1985) provided a particularly enlightening analysis of acculturation and social boundary maintenance in eighteenth-century Statian society. Kandle highlighted the distinctions between the daily lives of the island's permanent residents in Oranjestad and the less stable population of seamen and shipping agents who inhabited Lower Town.

St. Eustatius' churchyards and cemeteries were mapped and described by graduate student Laurie Paonessa (1990) in her intriguing study of social status as reflected in mortuary practices. Her thesis provides a solid record of this class of sites, most of which had not been previously studied. Additional mapping was performed by archaeology students Laura Clifford (1988) and Carrie Stettler (1990). Future studies of the island's cemeteries should include the small plantation graveyards at Guyeau (SE33), English Quarter (SE45), Concordia (SE85), Golden Rock (SE91), Schotsenhoek (SE92), and Benners (SE93).

Other studies of urban sites have included inventories of Oranjestad's architecture (Sanders 1988; 1989), water cisterns (Harper 1990), and stone baking ovens (Monteiro 1990). These studies not only documented the existing resources, but

offered insights into the cultural adaptations that Europeans have made to local environmental conditions. Dana Triplett (1995) expanded on these ideas in her analysis of town planning on St. Eustatius. Triplett elucidated the particular variety of Dutch culture that was manifested in Oranjestad as a result of the colonists' untutored efforts to recreate a semblance of their homeland in an unfamiliar place. Each of these studies have provided significant insights into the processes of cultural change in the past. The adaptations made by the various Europeans who inhabited the island during the colonial period can best be examined through continuing study of the urban sites where they lived, played, worked, worshiped, and died.

In order to best organize future studies of Oranjestad, it is recommended that a standardized file, similar in format to that suggested for plantation sites, be created for each houselot in Oranjestad, treating each as a separate site. All available information on each lot, including data from the surveys by Sanders, Harper, and Monteiro, should be collated into individual files that can be correlated with the Census Bureau's street numbering system. This would facilitate archival research on specific lots as well as the exchange of

information between researchers and planners.

A program of limited test excavations at each house lot would reveal clues to site chronology and the presence of former outbuildings, subsurface features, and specialized activity areas. Archaeological research at this level would also provide important data on the growth and development of the town itself, which at this point is largely unknown for the first century of the island's habitation. Most studies have focused on the second half of the eighteenth century, while studies on the seventeenth century are conspicuously absent. A detailed chronology of Oranjestad's development would facilitate more specialized anthropological studies within a broad-based community study program (Cusick 1995).

#### OTHER SITES

Two sites which do not fit neatly into any of the above categories are the Lazareto Leper Colony (SE127) and the Sisal Factory (SE119). Very little information has been published on the leper colony except that it was in use from the 1860s through the early twentieth century (Paonessa 1990:45-46). The residential structure is intact and at least two burials have been identified. It remains for someone to conduct the

research necessary to adequately evaluate and interpret this rare site. It is possible that the social stigma attached to leprosy is to blame for the paucity of information on this site, but that makes it all the more important that it be studied.

The Sisal Factory (SE119) was built in the early twentieth century to process sisal for ropemaking, but a combination of factors contributed to its demise (Hartog 130-131). At its peak during World War I, the factory employed almost 250 people, a significant portion of the island's population at the time (Kulesa 1989:25). The structure is in good condition, with well-preserved interior features and intact walls. This site should be of interest to industrial archaeologists and those interested in the early twentieth-century economy of St. Eustatius.

This chapter reviewed the results of archaeological and architectural research that has been conducted on St. Eustatius, relating extant archaeological sites to the broad patterns of the island's history. The research recommendations presented above are intended to guide the current program of anthropological inquiry into the next century. The overall objective is to improve the quality of

information through intensified field survey and documentary research. Once that has been accomplished, the specialized studies discussed in this chapter can be undertaken and important anthropological issues can be explored. St. Eustatius' central role in Caribbean history and its relatively low level of modern development make it an ideal location for future archaeological study.

## CHAPTER 6:

### MANAGEMENT RECOMMENDATIONS

Archaeological sites and historic structures are important to communities as symbols of their cultural heritage and to anthropologists as clues to understanding human behavior. As the St. Eustatius government develops its economy and improves the quality of life for its citizens, it needs to take a proactive role in managing these irreplaceable cultural resources to preserve them for future generations. A comprehensive cultural resource management program integrating the concerns of citizens, planners, developers, and scholars should include preservation planning, site protection legislation, public education, and ongoing research.

#### PRESERVATION PLANNING

As discussed in Chapter 1, historic preservation and socioeconomic development can coexist if an open dialog is



maintained between the two realms. If government planners have access to adequate information about the existence and location of important sites, then development projects can be planned so as to avoid them. Conversely, if the preservation community is made aware of planned undertakings well in advance, they can consult with planners to mitigate the adverse effect of such projects.

Figures 5, 7, and 11 show the locations of all well-documented sites and historic structures on St. Eustatius. Planners should consult these maps in the initial stages of any planned project to determine whether any sites exist within the proposed project area. If so, the site descriptions in Chapter 4 and the provisional significance ratings in Appendix A should be consulted for basic information on the site and its relative importance. The Historical Foundation and the Monuments Board should be considered as advocates for the public in negotiations with the government and developers. If possible, projects that are found to pose a threat to important sites or structures should be redesigned to minimize the threat. If that is not feasible, the project should at least be postponed until arrangements can be made for archaeological investigation or

other documentation. In this way, the potential loss of an irreplaceable cultural resource can be mitigated by preserving a record of it for future generations.

Funding is a persistent problem faced by those who seek to preserve the past in the face of modern development. A common solution is to require the developer to finance any research necessitated by a planned project. A set percentage of the total budget for any development project should be dedicated toward excavation at sites that will be destroyed by the project. For example, if a million-dollar hotel would destroy parts of the Lower Town historic district, then the developers should be required to spend at least 1% (\$10,000) on documenting the sites that would be destroyed. That would ease the financial strain faced by the Historical Foundation in its efforts to attract outside experts needed for background research, excavation, laboratory analysis, report writing, and curation of recovered artifacts and records. Private developers should be required to finance such research if they want to set up profit-making ventures that will cause the destruction of the island's heritage.

Archaeological investigation should also be conducted prior to any government-sponsored renovation projects, as was

done at Fort deWindt (SE8), Battery Concordia (SE81), and the Government Guest House (SE219). These investigations revealed important information not previously known to those directing the renovations. Before historic structures in Oranjestad are renovated under the Historic Core program, archaeological testing should be conducted to determine site chronology and construction sequences. This would result in more accurate reconstruction and would avoid creating idealized versions of the past. A combination of archival and archaeological research would also provide contextual information for interpretive displays at the reconstructed buildings to attract and educate citizens and tourists interested in the island's cultural heritage.

#### SITE PROTECTION LEGISLATION

Until the Island Government passes a balanced, effective Island Monuments Law as called for by the Federal Monuments Law, there will be a risk that archaeological sites will be lost, whether intentionally or accidentally. Consultation between the Historical Foundation and the Government should continue until an agreement is reached on a law to protect these resources.

A major stumbling block in developing protective legislation has been to identify the specific sites to be protected. A recommended strategy is to identify a representative sample of the best-preserved sites of each type, and protect them as elements of a national monuments system. Most of the island's military sites and prehistoric sites are in peripheral zones and face little threat from development, but because of their rarity and high research value, these sites should all be protected. Military sites, prehistoric sites, and the others rated as Category I sites in Appendix A should be accorded legal protection as historical and cultural resources. The entire Lower Town area should be designated as a protected historic district, including the 135 warehouse sites, the offshore breakwater, and shipwrecks. Not every warehouse ruin in the district would have to be preserved forever, but there should be some mechanism to require archaeological excavation before new construction is permitted. Finally, as rural plantations and sites in Oranjestad are studied and evaluated as recommended in Chapter 5, specific sites in those areas can be designated for protection.

Sites on private property are less subject to legal

restrictions than those on government land, but many tools exist to encourage property owners to preserve sites on private land (Henry 1993:96-103). For St. Eustatius, a good method would be to offer a tax break for landowners who can demonstrate on a continuing basis that they are protecting the sites on their property. A preservation easement that describes the site and specifies the measures to be taken for its protection could be inserted into the property deed to ensure that future owners will continue the practice.

Sometimes, private ownership is preferable to government protection. For example, the Zeelandia plantation site (SE111) was acquired from the government by the Collins family, owners of the adjacent land, in a land-trade agreement. Having observed the site's gradual decimation by vandals prior to acquiring the land, the present owner has taken steps to have the site surveyed and fenced (Collins 1994). This form of site stewardship is encouraged in situations where long-term protection can be guaranteed.

#### PUBLIC EDUCATION

The notion of private citizens as stewards of the common heritage reiterates a point made in Chapter 1, that the public

needs to be brought more fully into the preservation process in order for it to work. Archaeologists must communicate with the public as well as the scholarly community if they expect public support for their work. When people see that they have a share in the benefits of historic preservation, they are more likely to become participants in the process.

The St. Eustatius Historical Foundation Museum should create a partnership with the local school system to pass on the knowledge gained through archaeology. The island's important role in colonial history could be a starting point for activities that would teach children the importance of their cultural heritage and the significance of the sites that their ancestors built. After appropriate classroom instruction, students could visit ongoing excavations to see firsthand how archaeologists learn about the past.

As for the Historical Foundation Museum itself, the government should continue to support this award-winning institution as a bridge between the past and the future. Many Caribbean islands have discovered that heritage tourism is their most popular and profitable commodity. The Historical Foundation has always emphasized the island's rich history and should continue to protect and interpret St. Eustatius'

archaeological and architectural monuments. The walking tour booklet produced by the museum could be expanded into a series of interpretive signs at significant sites around the island. The signs could be erected first at the Category I sites listed in Appendix A, then added as additional sites are researched. If interpretive signs are designed to the same high standards as the museum exhibits, the benefits in increased heritage tourism would outweigh the costs.

The Concordia plantation site should be fully excavated and renovated to serve as a satellite site for the planned "Museum of the First Salute" (Richter n.d.). Concordia would be appropriate for this purpose, since its original owner, Gov. de Graaff, ordered the firing of the "First Salute" to an American vessel in 1776. The site could be restored by replacing the present flat roof on the main house with its original gabled roof, removing modern additions, and restoring the sugar boiling facilities to working order. Concordia could then function as a site where some of the activities planned for the living history museum could be enacted. Concordia's proximity to the airport makes it the first and last sight most visitors have of the island, and given its demonstrated historical significance, it would be far

preferable to preserve the site as a cultural heritage museum than to bulldoze it for an airport taxi lane, as called for in current plans.

#### RESEARCH

To help implement this cultural resource management program, the Island Government should consider sponsoring a full-time archaeologist. The individual should have training in archaeological field methods and theory, regional history, artifact conservation, and collections management. This would enable a great deal of the recommended research to be accomplished on a continuing basis, freeing the annual summer field schools to conduct pure research instead of emergency salvage excavations as has often been the case in the past. The island archaeologist could accomplish many of the smaller projects that need to be done and would be available as needed to investigate areas proposed for development. This island archaeologist would consult with the Historical Foundation, the Monuments Board, the government, and developers to help accomplish the recommended research and management objectives.

Finally, the museum's archaeological lab annex desperately requires upgrading, as it is the main repository



for all artifacts recovered from archaeological excavations. The present facility, located in the former library next to the hospital on Princesweg, is severely dilapidated, and if not replaced soon, the results of years of work will be lost. The roof leaks badly, the floor is rotting, and the back wall has almost completely collapsed. The building is infested with termites, silverfish, bees, and other vermin. Artifacts from past excavations are piled on the floor in paper bags that are being decimated by the silverfish. One of the duties of the island archaeologist should be to properly curate the artifacts. They should be washed, catalogued, labeled, and stored in archival-quality containers in a climate-controlled, solidly-constructed facility with secure locks and a fire suppression system. It will be a tragic loss if the results of years of research are lost through sheer neglect. Vacant cinder block buildings were noted in central Oranjestad by the author in 1994 which could be renovated to house this world-class research collection. The collection should be made available for study by visiting researchers, but in its present condition it is virtually inaccessible and is in grave danger.

## CONCLUSION

Heritage tourism could be an important component of St. Eustatius' economy in the future, but only if the island's historic sites and structures are preserved. St. Eustatians are proud of their heritage, and rightly so. It is imperative that the government enact a comprehensive law to protect the island's historic sites and structures and preserve these irreplaceable cultural resources for the future. If the four major steps outlined in this chapter are implemented, St. Eustatius will reap the benefits of increased national pride and economic self-sufficiency for generations to come.

## **APPENDIX**

APPENDIX A - Cultural Resources Summary Table

<u>Site #</u>	<u>Site Type</u>	<u>Date</u>	<u>Condition</u>	<u>Significance Rating*</u>
SE1	Warehouse Ruin (SE300)	18th century	Excavated	III
SE2	Trash Pit / Graves	18th century	Partially excavated	III
SE3	Historic artifact scatter	unknown	unknown	IV
SE4	Historic artifact scatter	unknown	unknown	IV
SE5	Historic artifact scatter	unknown	unknown	IV
SE6	Prehistoric Midden	Saladoid	Stable, erosion threat	I
SE7	Sugar Refinery	18th century	Structure ruins, partially excavated	I
SE8	Military	18th century	Renovated	I
SE9	Plantation	18th century	unknown	II
SE10	Plantation / sugar mill	18th-20th century	Structures in use, archaeology untested	I
SE11	Historic artifact scatter	unknown	unknown	IV
SE12	Historic artifact scatter	unknown	unknown	IV
SE13	Historic artifact scatter	unknown	unknown	IV
SE14	Historic artifact scatter	unknown	unknown	IV
SE15	Historic artifact scatter	unknown	unknown	IV
SE16	Historic artifact scatter	unknown	unknown	IV
SE17	Historic artifact scatter	unknown	unknown	IV
SE18	Historic artifact scatter	unknown	unknown	IV
SE19	Warehouse Ruin (SE349)	18th century	Excavated	III
SE20	Plantation	18th century	Structural ruins, archaeology untested	II
SE21	Plantation	18th century	Structures unknown, archaeology untested	II
SE22	Plantation	18th century	Structural ruins, deposits unknown	II
SE23	Plantation well	18th century	Fragmentary eroded ruins	III
SE24	Plantation	18th century	Structures good, archaeology untested	II
SE25	Historic artifact scatter	18th century	unknown	IV
SE26	Plantation	18th-19th century	Structural ruins, archaeology untested	II
SE27	Military	18th century	Structure stable, archaeology untested	I
SE28	Plantation well	18th century	Structures good	III
SE29	Prehistoric lithic scatter	Archaic Period	Partially excavated	I
SE30	Plantation	18th century	Structural ruins, archaeology untested	II
SE31	Plantation	18th century	Structural ruins, archaeology untested	II
SE32	Plantation	18th century	Structural ruins, archaeology untested	II
SE33	Plantation	18th century	Structural ruins, archaeology untested	II

<u>Site #</u>	<u>Site Type</u>	<u>Date</u>	<u>Condition</u>	<u>Significance Rating*</u>
SE34	Plantation	18th century	Structural ruins, archaeology unknown	II
SE35	Plantation	18th century	Structural ruins, archaeology untested	II
SE36	Prehistoric tool cache	unknown	Stable	I
SE37	Plantation / sugar mill	18th century	Structures good, archaeology untested	II
SE38	Plantation	18th century	Structural ruins, archaeology untested	II
SE39	Plantation	18th century	Structural ruins, archaeology untested	II
SE40	Plantation	18th-20th century	Structural ruins, archaeology untested	II
SE41	Plantation	18th century	Structural ruins, archaeology untested	II
SE42	Plantation	18th century	Structural ruins, archaeology untested	II
SE43	Historic artifact scatter	unknown	unknown	IV
SE44	Military	18th century	Structure eroded, archaeology untested	I
SE45	Plantation / sugar mill	18th-20th century	Structures good, partially excavated	I
SE46	Plantation well	18th century	Structures good, archaeology untested	III
SE47	Historic artifact scatter	unknown	unknown	IV
SE48	Historic artifact scatter	unknown	unknown	IV
SE49	Plantation	18th century	Structural ruins, archaeology untested	II
SE50	Plantation	18th century	Structural ruins, archaeology untested	II
SE51	Plantation / sugar mill	18th century	Structural ruins, archaeology untested	II
SE52	Plantation	18th century	Structural ruins, archaeology untested	II
SE53	Plantation	18th century	Structures good, archaeology untested	II
SE54	Plantation	18th-20th century	Structures in use, archaeology untested	II
SE55	Historic artifact scatter	unknown	unknown	IV
SE56	Plantation	18th century	Structures good, archaeology untested	II
SE57	Plantation	18th century	Structures good, archaeology untested	II
SE58	Plantation	18th-20th century	Structures in use, archaeology untested	II
SE59	Plantation?	unknown	More information needed	II
SE60	Plantation	18th century	Structural ruins, archaeology untested	II
SE61	Plantation	18th-20th century	Structures in use, archaeology untested	II
SE62	Plantation	18th century	Structures good, archaeology untested	II
SE63	Plantation	18th century	Structures good, archaeology untested	II
SE64	Plantation	18th century	Structural ruins, archaeology untested	II
SE65	Plantation	18th century	Structures good, archaeology untested	II
SE66	Military	18th century	Structures good, archaeology untested	I
SE67	Plantation	18th century	Structural ruins, archaeology untested	II
SE68	Plantation	18th century	Structural ruins, archaeology untested	II

<u>Site #</u>	<u>Site Type</u>	<u>Date</u>	<u>Condition</u>	<u>Significance Rating*</u>
SE69	Military	18th century	Structure good, archaeology untested	I
SE70	Historic artifact scatter	unknown	unknown	IV
SE71	Military	18th century	Structure eroded, archaeology untested	I
SE72	Prehistoric midden	unknown	Erosion damage	I
SE73	Prehistoric midden	unknown	Erosion damage	I
SE74	Plantation	unknown	More information needed	II
SE75	Plantation	18th century	Structural ruins, archaeology untested	II
SE76	Plantation	18th century	Structural ruins, archaeology untested	II
SE77	Historic artifact scatter	unknown	unknown	IV
SE78	Plantation	18th century	Structural ruins, archaeology untested	II
SE79	Plantation well	18th century	Structure good, archaeology untested	III
SE80	Prehistoric midden	unknown	unknown	I
SE81	Military	18th century	Structure renovated, partially excavated	I
SE82	Prehistoric midden	unknown	Erosion damage	I
SE83	Historic artifact scatter	unknown	unknown	IV
SE84	Plantation	18th century	More information needed	II
SE85	Plantation cemetery	19th century	Stable but unprotected	III
SE86	Plantation / sugar mill	18th-20th century	Structures excellent, archaeology good	I
SE87	Prehistoric	Saladoid	Mostly destroyed	IV
SE88	Prehistoric village	Saladoid	Excavated	I
SE89	Prehistoric village	Saladoid	Excavated	I
SE90	Historic artifact scatter	unknown	unknown	II
SE91	Plantation / sugar mill	18th-19th century	Structural ruins, archaeology untested	II
SE92	Plantation / sugar mill	18th-20th century	Structures good, archaeology untested	II
SE93	Plantation / sugar mill	18th century	Foundations only, archaeology untested	II
SE94	Military / slave depot	17th-19th century	Fort structure intact, archaeology untested	I
SE95	Plantation	18th-20th century	Structures in use, archaeology untested	II
SE96	Military	18th century	Structures good, archaeology untested	I
SE97	Military	18th century	Structures good, archaeology untested	I
SE98	Military	18th century	Structures good, archaeology untested	I
SE99	Military	18th century	Mostly destroyed	III
SE100	Prehistoric potsherds?	unknown	Probably not a site	IV
SE101	Historic artifact scatter	unknown	unknown	IV
SE102	Prehistoric potsherds	unknown	unknown	I
SE103	Historic artifact scatter	unknown	unknown	IV

<u>Site #</u>	<u>Site Type</u>	<u>Date</u>	<u>Condition</u>	<u>Significance Rating*</u>
SE104	Historic artifact scatter	unknown	unknown	IV
SE105	Historic artifact scatter	unknown	unknown	IV
SE106	Plantation	18th century	Structural ruins, archaeology untested	II
SE107	Historic artifact scatter	unknown	unknown	IV
SE108	Historic artifact scatter	unknown	unknown	IV
SE109	Historic artifact scatter	unknown	unknown	IV
SE110	Plantation	18th century	Structural ruins, archaeology untested	II
SE111	Plantation / sugar mill	18th century	Structural ruins, archaeology untested	II
SE112	Historic artifact scatter	unknown	unknown	II
SE113	Plantation	18th century	Structural ruins, archaeology untested	II
SE114	Plantation	18th century	Structural ruins, archaeology untested	II
SE115	Historic artifact scatter	unknown	unknown	IV
SE116	Plantation / sugar mill	18th-19th century	Structure intact, archaeology destroyed	II
SE117	Plantation	18th century	Structure intact, archaeology destroyed	II
SE118	Plantation house ruin	18th century	Structural ruins, archaeology untested	II
SE119	Sisal Factory	1915-1930s	Structural ruins, archaeology untested	II
SE120	Warehouse Ruin (SE391)	18th century	Structure good, archaeology untested	I
SE121	Plantation?	unknown	Excavated	III
SE122	Plantation?	unknown	More information needed	II
SE123	Warehouse Ruin	18th century	More information needed	II
SE124	Cave	18th century	Excavated	III
SE125	Plantation	unknown	More information needed	II
SE126	Plantation?	18th century	More information needed	II
SE127	Leper Colony	19th-20th century	More information needed	II
SE128	Military	17th-20th century	Structure & burials intact but threatened	I
SE129	Military	18th century	Renovated, remodeled, erosion threat	I
SE130	(same as SE86)	-	Foundation outlines, archaeology untested	I
SE131	Cemetery	unknown	-	-
SE132-216	NUMBERS NOT ASSIGNED		More information needed	I
SE217	Synagogue Ruin	18th century	Structure stabilized, partially excavated	I
SE218	Residence (Museum)	18th century	Excavated, renovated, stable	I
SE219	Town Square (Offices)	17th-20th century	Excavated, renovated, stable	I
SE220	Plantation / Sugar Mill	18th century	Excavated, structural ruins	I

<u>Site #</u>	<u>Site Type</u>	<u>Date</u>	<u>Condition</u>	<u>Significance Rating*</u>
SE221	Old Church Cemetery	17th-20th century	Protected, possible buried foundations	II
SE222	Jewish Cemetery	18th-19th century	Protected	II
SE223	Methodist Churchyard	19th-20th century	Church & cemetery still in use	II
SE224	Dutch Reformed Church	18th-20th century	Church ruins stabilized, cemetery in use	I
SE225	Catholic Churchyard	19th-20th century	Church & cemetery still in use	II
SE226	Public Cemetery	20th century	Walled, cemetery still in use	II
SE227	Anglican Churchyard	18th-20th century	Church foundations, cemetery in use	II
SE228	Family Cemetery	20th century	Walled, protected	II
SE229-299	NUMBERS NOT ASSIGNED			
SE300-435	Warehouse Ruins	18th century	Ruins & foundations, deposits unknown	II
--	Offshore breakwater	18th century	Stable	III
--	Shipwrecks	18th century	More information needed	II

\*Key to significance ratings

- I - Sites of primary importance. Protect from impacts. Erect interpretive sign. Permit appropriate research to continue.
- II - High potential, but more information needed. Protect until evaluation has been completed. Assume significant until proven otherwise.
- III - Important as a contributing element of a district or thematic group. Protect from impacts. If impact is unavoidable, conduct salvage excavation.
- IV - Ephemeral, redundant, or severely disturbed. Can be upgraded if the site is relocated and proven significant.



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