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Town Planning and Architecture on Eighteenth Century St Eustatius

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TOWN PLANNING AND ARCHITECTURE ON EIGHTEENTH
CENTURY ST. EUSTATIUS

A Thesis

Presented to

The Faculty of the Department of Anthropology

The College of William and Mary in Virginia

In Partial Fulfillment

Of the Requirements for the Degree of
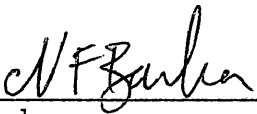
Master of Arts

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by

Dana Triplett

1995

APPROVAL SHEET

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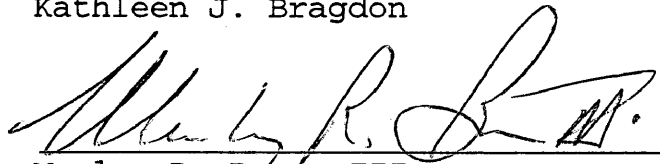requirements for the degree of

Master of Arts

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TOWN PLANNING AND ARCHITECTURE ON
EIGHTEENTH CENTURY ST. EUSTATIUS:
AN EVALUATION OF THE CONTINUITY OF NETHERLANDISH FORMS

ABSTRACT

This thesis is an investigation of the cultural roots of the plan and architecture of the one town on eighteenth century St. Eustatius. This island was predominantly occupied by the Dutch, but was invaded numerous times by the British and hosted residents of many different nationalities. Therefore, it is likely that the town's morphology and built forms drew from cultural sources other than the Dutch. The goal of this work is to evaluate the degree of persistence of the Dutch tradition of planning and building over the eighteenth century, and to formulate an idea of which of the other traditions present in the Caribbean region the residents of St. Eustatius borrowed from.

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TOWN PLANNING AND ARCHITECTURE ON EIGHTEENTH

CENTURY ST. EUSTATIUS

Introduction

The generation of spatial configurations and architectural forms is a social process and therefore indicative of cultural ideas held by an area's inhabitants as a collective unit. Historic spatial forms of streets and buildings often endure over time preserved *in situ* or on period maps and drawings, and in this way they provide a means of studying culture history.

Spatial configurations in the Caribbean landscape are especially complex and interesting as they represent the contributions of many diverse groups. The Caribbean landscape is in some ways fabricated being the "complex product of a long and continuous exercise in colonialism and neo-colonialism, and of the responses this enterprise provoked among voluntary and coerced migrants from three continents."[1] For example, the demography of the area was contrived through the presence of itinerant merchant populations and the importation of slave labor. In addition, the Caribbean region is part of an artificial geography which incorporates parts of the

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[1] M-R. Trouillot, "The Production of Spatial Configurations: a Caribbean Case" in *Nieuw West-Indische Gids*, vol. 57, nos. 3 & 4 (1983), 216.

South American continent and even Bermuda within its domain. These disparate geographic areas are tied by the enterprise of colonialism. This bond eventually led to a West Indian culture, a pastiche of cultures each made dilute by the interaction of one culture with another.

When did a West Indian culture begin to emerge? A West Indian architectural style and manner of building had not yet evolved as the seventeenth century ended.[2] By identifying and investigating the persistence of characteristics of particular cultures historically present in the Caribbean through the analysis of spatial configurations and built forms, the development of new distinctively West Indian traits can be traced.

This paper seeks to describe the degree to which Dutch traditions in town planning and architecture persisted through the eighteenth century after Dutch colonists settled on the Caribbean island of St. Eustatius in 1636, and to evaluate what ecological, economic, and cultural factors contributed to planning preferences. The time period studied is limited to the eighteenth century as this was the island's era of greatest development. The end of the eighteenth century also saw the end of an important chapter in St. Eustatius' history as the island lost its ability to

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[2] P. Gosner, *Caribbean Georgian: the Great and Small Houses of the West Indies* (Washington, DC. 1982), 10.

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function as an entrepot, and the Dutch West India Company was bankrupted.

The research method is comparative. First, a background history of the town on St. Eustatius (today known as Oranjestad) pertinent to urban development is given. What is known of the town's historic development, and eighteenth century layout and architectural forms is then described. Period urban forms of Dutch port towns in the Netherlands are described to achieve a broad definition of what common Dutch urban characteristics were. The layout and architecture of other Dutch colonies in the East and West Indies and North and South America are discussed in order to get an idea of regional variations in the Dutch urban style. Oranjestad is compared with these Netherlandish and Dutch colonial urban forms. To assess the degree of influence from other cultures, Oranjestad's plan is also compared with eighteenth century Spanish, English, Danish, and French colonial planning in the Caribbean area. In the conclusion, the degree of continuity of the Dutch urban tradition on St. Eustatius is evaluated and the factors which affected the island's urban character weighed.

Several historic maps of St. Eustatius are used in this study. Though no maps of St. Eustatius from its earliest phase of development in the seventeenth century

are known to survive, several eighteenth century maps ranging from 1742 to 1795 depict the street grid and the arrangement of structures within the town of Oranjestad. These include three Dutch maps dated 1742 (figure 4), 1743 (figure 5), and 1775 (figure 7), a French map made about 1781 (figure 8), a Dutch plan of the town's fort, Ft. Oranje, circa 1787 (figure 10), and an English map from 1795 (figure 9.) A number of drawings and engravings of Oranjestad also exist. These show in varying detail the style of architecture and some also note the locations of major buildings within the town. These drawings and engravings are shown in chronological order in figures 12, 13, 14, 15, 16, 17, and 18.

Extensive archaeological research carried out on the island since 1981 by Dr. Norman Barka and the William and Mary field school enabled many of the warehouse ruins in the wharf area of the town to be mapped and described, showing building placement, orientation, and density (figures 19 - 25.)[3] Archaeological research has, in addition, uncovered the foundations of several eighteenth century buildings which have been measured, drawn, and described.[4]

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[3] For a detailed physical description of each structure mapped see N. Barka, *Archaeology of St. Eustatius, Netherlands Antilles: an Interim Report on the 1981-1984 Field Seasons*, Manuscript, College of William and Mary, Department of Anthropology (1985), 11-45.

[4] For a complete explanation of archaeological investigations related to these structures see N. Barka, *Archaeology of the Government Guest House, St. Eustatius, Netherlands Antilles: an Interim Report* (1986); *Archaeology of the Jewish Synagogoue Honen Dalim, St. Eustatius, Netherlands Antilles: an Interim Report*

These visual accounts are complemented by eighteenth century written descriptions. These include correspondence between inhabitants of St. Eustatius and the Dutch West India Company, a letter from a visitor to St. Eustatius written in 1792, a journal dating from the 1770s kept by a Scottish woman who visited the island in 1775, the probate inventory of Johannes de Graaff (governor of the island between 1776 and 1781) which lists his land holdings in the town, and four issues of the St. Eustatius *Gazette* (the local newspaper) dating from the years 1790, 1792, 1793, and 1794.

(1988); *A Progress Report on the Structural Aspects of the Government Guest House Complex, St. Eustatius, Netherlands Antilles* (1989); and *Archaeological Investigations of Structure 4, Government Guest House, St. Eustatius, Netherlands Antilles* (1990), all manuscripts, College of William and Mary, Department of Anthropology.

Chapter 1: Historical Background

In the seventeenth century the Dutch were looking for a strategically located outpost for trade at which they might also reap profits from natural resources. Though the small size and ruggedness of St. Eustatius (also known as Statia) had led the Spanish in the sixteenth century to dub it one of the *islas inutiles*, the potential of St. Eustatius was not lost on the Dutch. Its geographical location as one of the Caribbean Leeward islands (see figure 1) invited trade as it was situated in the midst of French, Danish, Spanish, and English colonies. It possessed a suitable roadstead for maritime commerce, and it was unsettled so that the Dutch could stake their claim to the land uncontested.

Agricultural potential on the island was scant. Statia's volcanic origins had provided it with only a dry, loamy soil. The central plain of the island (see figure 2) was relatively fertile, but spotty rainfall and a seasonal drought made the island overall unable to sustain intensive agriculture. These drawbacks were outweighed by Statia's aforementioned qualities which made it mesh nicely with the Dutch philosophy of trade.

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On 25 April, 1636, the Dutch occupied and subsequently claimed St. Eustatius as part of their empire.

The island possessed the status of a *patroonschap* colony, meaning that the gentleman *patroon* who founded the colony was given seignory over it by the States General in the Netherlands and became a self-styled manorial lord. *Patroon* of St. Eustatius, Jan Snouck, a merchant in Flushing in the province of Zeeland, founded the colony with other Flushing elites including Abraham van Pere and Pieter van Rhee.[1] It was initially settled by Zeelanders, Walloons, and Flemings, but specifics about these first colonists are unknown.

Snouck informed the Zeeland provincial government by letter that Pieter van Corselles, whom he had asked to lead the colony, had claimed "the island of St. Eustache, four miles from St. Christoffel, and there has built a fort called Oranje in a cliff 150 steps high, and has named the island Nieuw Zeelandt."[2] The settlers secured the fort with sixteen canon, and within the next

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[1] Though St. Eustatius was not directly founded by the Dutch West India Company, the distinction made between it as a private endeavor and its Company-founded neighbors Curacao, Aruba, and Bonaire, is unnecessary as their status as *patroonschaps* was the same. Colonies not classified as *patroonschaps*, but under the direct authority of the West India Company, had their land parsed and given in full ownership to masters and independent colonists. Ownership meant only *dominum utile* for the grantee with an exclusion of third party ownership. Rights to the land were not seignorial, but only designated the right and obligation to cultivate. For these ownership rights, the colonist paid 10 pence a morgen yearly. J.G. Van Grol, "Historical Foundation of the Political Organization of the Netherlands Windward and Leeward Islands" in M.A.P. Meilink Roelfsz (ed.), *Dutch Authors on West Indian History* (Netherlands 1982), 330.

[2] Y. Attema, *St. Eustatius: a Short History of the Island and Its Monuments* (Holland 1976), 17.

three years the island was supporting 60 colonists. The colonists were not only faced with wresting subsistence from the unfamiliar land, but were expected by their sponsors in the Netherlands to immediately begin profitable cultivation. With agriculture as their focus, they were even by 1638 shipping tobacco to Flushing. Aboriginal slaves had been brought from nearby Dominica and the Guianas for additional labor, but by 1650 they had been replaced by African slaves which were available in larger numbers. By 1665 St. Eustatius was itself actively involved in the slave trade, supplying slaves to other islands and for its own use on newly developing sugar plantations. Statia was beginning to carve its niche in the regional economy.

Dutch successes caused strife with the English who were jealously guarding their own significant place in the Caribbean economy. In 1665 the English captured St. Eustatius and placed it under the British flag, destroying sugar and cotton plantations in the process. Though this English occupation lasted only a year it left its mark. It foreshadowed the tumult to come in which St. Eustatius would be occupied 21 more times by the English or French until the Dutch finally gained permanent control in 1816. The occupation also exposed the colonists' discontent with their status as manorial subjects; when the Dutch retook the island after a

second year-long English capture, the Statians - curiously - took the side of the English.[3]

In 1683, after St. Eustatius had changed hands six times since its founding in 1636[4], the merchants in Flushing resolved to sell their *patroonschap* to the Dutch West India Company (WIC.) The WIC, formally chartered in 1621, was created by the merchant elite and burgher oligarchs of the Netherlands as a means of overseeing legal and illicit commerce of commodities of all kinds, and establishing colonies in North and South America to feed Dutch primacy in trade.

The West India Company was politically entertwined with the Dutch provincial governments and sovereign States General in the Netherlands. Partial control of the Dutch colonies was therefore given to a part of the Netherlands government, the Heren XIX. The Heren was a group of middle-class men selectively chosen from a pool of highly successful merchants. Their control had an immediate effect on the town landscape on St. Eustatius as it was their duty to parcel land and oversee public works projects such as erecting public buildings and fortifications.

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[3] Ibid, 27.
[4] The island was occupied twice by the English (1665-1666; 1672-1679) and once by the French (1666-1668) during the period between 1636 and 1683. After the island came under the control of the WIC it was taken three more times by the French during the years 1689-1690, 1781-1784, and 1785-1801. The English occupied St. Eustatius during 1690-1696, February 1781-November 1781, 1801-1802, and 1810-1816. Despite these repeated interruptions in Dutch rule, the Dutch still controlled St. Eustatius for the greatest amount of time.

The duties listed for the local government on St. Eustatius do not, on the other hand, specifically list tasks that relate directly to the town plan or architectural construction. This local government, called the Low Council, filled the gaps left by higher political levels. Its duties included "'everything in general as well as every component in particular as civil, policy, and legal council, as civilian and military council (civic guard garrison) and orphan's trustees, church elders and deacons.'"[5]

In 1756 the island became a free port and subsequently flourished economically. Statia was neutral ground so that merchants of any nation could buy and sell there with impunity regardless of existing international wars and treaties. Statia's port saw voluminous international trade. Each year between 1800 and 2700 ships sailed into the island's roadstead.[6] Statia was dubbed the "Golden Rock" for the tremendous amount of wealth that was generated there.

St. Eustatius' free port and the lure of quick profit brought a substantial number of immigrants to the island which created a very diverse population. This is important in regard to the town landscape because it meant that it was not simply the Dutch contributing to the town's design. Historic documents show that

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[5] van Grol, "Historical Foundation of the Political Organization of the Netherlands Windward and Leeward Islands", 345.
[6] J. Hartog, *History of St. Eustatius* (Aruba 1976), 40.

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immigrants came from England, Ireland, France, Germany, Scotland, Italy, Corsica, Belgium, Hungary, Poland, and the United States. People also immigrated from Bermuda and the West Indian islands of Martinique, Curacao, St. Martin, St. Christopher, Antigua, Nevis, Grenada, Barbados, Guadeloupe, and Jamaica.[7] Copious birth, death, and marriage records kept by the Bermudian rector of the Anglican church on St. Eustatius between 1773 and 1778[8], and gravestones in the Old Church Cemetery on the island also note diverse origins for the citizens.

There was a large Jewish community on Statia which had its roots in the seventeenth century. When the Dutch were forced to leave Pernambuco in 1654, many within the Jewish population there moved to Amsterdam but some returned to Dutch and English islands in the Caribbean. By 1781, Statia's Jewish population had reached about 350.[9] This number included both Sephardic and Ashkenazim.

Second to the Dutch, however, the English contingent was most substantial. Ambitious English and Bermudian merchants realized that if they were naturalized as Statian citizens, they became neutrals

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[7] N. Barka, "Citizens of St. Eustatius, 1781: a Historical and Archaeological Study" (In press), 13-15. The above information is taken from three documents dating from 1780-1781. Barka also notes using these same documents that people did not appear to be moving to Statia from Central America, South America, Africa, or Canada.

[8] A.C. Hollis-Hallet, *Early Bermuda Records, 1619-1826* (Toronto 1991), 194-200.

[9] Hartog, *History of St. Eustatius*, 56.

and could carry on trade with the enemy even during wars.[10] The archaeological record for the latter part of the eighteenth century is dominated by English ceramics and glassware which shows not just "the presence of the English burghers but the strength of British industry and marketing."[11] It was the English rather than the Dutch who imposed their language on the colony.[12] The St. Eustatius Gazette, the local newspaper, was printed almost entirely in English. One visitor wrote, "The local language of the natives, mulattos, and negros is English; you hardly hear anything else. If one speaks Dutch to a lady she either doesn't answer or if she feels like it she will respond in English."[13]

Residence turnover was high. The type of immigration policy and allusions to wealth on the island led people there with hopes of quick success. In the early 1780s, the percentage of citizens who had lived on the island between five and twenty years was much higher than those who had lived there for more than twenty years.[14] The number of adult white males was three times

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[10] R. Pares, *War and Trade in the West Indies, 1739-1763* (Oxford 1936), 424.
[11] Barka, "Citizens of St. Eustatius", 27.
[12] The Dutch language rarely bore heavily on their colonies. As John Adams, United States envoy to the Netherlands, wrote from Holland to his wife in 1780, "The Dutch language is spoken by no one but themselves. Therefore they converse with no one and no one conversed with them." B. Tuchman, *The First Salute* (New York 1988), 24.
[13] From a letter dated 1792 and signed "Zimmerman the Elder", as reproduced in P. Kandle, *St. Eustatius: Acculturation in a Dutch Caribbean Colony*, Unpublished MA Thesis, College of William and Mary, Department of Anthropology (1985), 184. This letter is hereafter referred to as the Zimmerman letter.
[14] Barka, "Citizens of St. Eustatius", 16.

that of adult white females, and less than half this population was married.[15]   These marks of transience contrast with the permanence of the island's governing elite.   A small group of family names such as Heyliger, Doncker, de Graaff, Salomons, Markoe, and Lindesay, are recognizable over time on two maps which show plantation holdings by owner [16], and on poll tax lists, probate records, and in newspaper advertisements in the St. Eustatius *Gazette* describing property for sale or rent which list the property owners.   Only a limited number of hopeful entrepreneurs immigrating to the island could expect to be rewarded with substantial profits, and one can guess that many moved on to other ventures when their expectations were disappointed.

There were also, of course, numerous visiting merchants of various nationalities.   In 1792, one visitor in a letter wrote, "The roadstead is always full of Spanish, American, and English barks that come and go everyday and with whom we do business; the bay is Little Amsterdam."[17]   Another wrote in her journal in 1775, "never did I meet with such variety; here was a merchant vending his goods in Dutch, another in French, a third in Spanish, etc., etc.   They all wear the habit of their country and the diversity is really amusing."[18]

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[15]   Ibid., 18 & 28.
[16]   One map, circa 1742, lists 74 plantation buildings.   A second map dated 1775 by Reinier Ottens, is an updated copy of the former 1742 map in a new format.
[17]   Zimmerman letter
[18]   J. Shaw, *Journal of a Lady of Quality, 1774-1776* (New Haven

One of the major lucrative commodities for the island was the munitions supplied for the American colonies during the American Revolution.[19] The success of Statia's port was already a thorn in the side of the British empire which had competing colonies on neighboring islands, but the conspiring of the Statians for profit with the American revolutionaries was more than England was willing to stand.

In 1776, the ship Andrew Doria of the nascent American nation sailed into the harbor at St. Eustatius. Island governor Johannes de Graaff allowed Ft. Oranje to recognize and return a salute fired by the canon of the Andrew Doria, and in this way officially acknowledged the autonomy of the American States as separate from the British crown. The English had been provoked long enough by the Dutch and their large, illicit trade network, and declared the salute an international incident. The Dutch were unconcerned with the episode until English admiral Sir Admiral Rodney was ordered to occupy St. Eustatius in 1780. Rodney plundered the island and seized merchandise totalling 3,000,000 pounds sterling, calling the town "a nest of vipers, a nest of villains deserving to be scourged."[20]

1923), 136.
[19] For a detailed account of Statia's role in the American Revolution see B. Tuchman, *The First Salute* (New York 1988.)
[20] H.C. Wilkinson, *Bermuda in the Old Empire: a History of the Island from the Dissolution of the Somers Island Company Until the End of the American Revolutionary War, 1684-1784* (Oxford 1950),

Rodney left the island slighty crippled from his plundering, and the French easily took the island in his wake. The French occupation, which lasted 1781-1784, was less hostile than that of the English. The resilient Statians regained their economic foothold after the French occupation ended and even experienced a population boom so that by 1790, over 8000 people were living on the island, the majority of which were slaves.[21] Recovery was brief. The slave trade and the American Revolution which the Statians had been exploiting for profit had come to an end, and inter-Caribbean trade was languishing. The economic base of the island fell apart.

In Holland, the early eighteenth century saw the waning of the Dutch Golden Age. By the end of the century the Netherlands experienced a deteriorating state of affairs involving declining trade, political infighting, and military weakness. The West India Company succumbed to bankruptcy in 1791, and was disbanded between the years 1794 and 1795. At the opening of the nineteenth century Dutch primacy in trade had ended, and St. Eustatius receeded into obscurity within the world market.

414.
[21] Hartog, *History of St. Eustatius*, 99.

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Chapter 2: The Development of the Port Town at St. Eustatius

The port town founded in 1636 on St. Eustatius, today known as Oranjestad[1], is still the only town on the island. The absence of a suitable roadstead and potential wharf area on the Atlantic coast, the rugged, hilly terrain at the northern end of the island, and the steep slope of an inactive volcano (the "Quill") at the southern end, made the bluff and narrow beach on Statia's western coast the logical choice for town development. The western coast opens onto the calm Caribbean sea creating a good anchorage for a commercial shipping center, and the strip of beach there made a suitable wharf area. The cliff that rises above the beach created a sweeping vantage point for viewing the bay area, making the cliff an ideal location for a fort.

When the Dutch arrived at St. Eustatius there were already the ruins of a fort on the edge of this western cliff overlooking the bay. This fort had been hastily constructed by the French when they had used the island as a retreat from an altercation with the Spanish. The

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[1] It is not known at what time the town was named Oranjestad. In the seventeenth and eighteenth centuries the Upper Town was called *het Dorp* (the Village), and the Lower Town was known as *de Baai* (the Bay.)

Dutch settlers built their fort, Fort Oranje, on top of the remains of the French fortification. The area that developed on the bluff around Ft. Oranje came to be known as the Upper Town, while the beach below was referred to as the Lower Town.

The Lower Town

The Lower Town grew up along a narrow stretch of beach only wide enough to require a single road that snaked along its two mile length. The southern boundary of the Lower Town was a sloping beach used in the eighteenth century as a careenage (on figure 12 this area is labled 10.)[2] The northernmost point of the Lower Town ended where the beach fades into rising cliffs (on figure 3 , this is the area just north of the Waterfort.) The cliffs and the Caribbean sea constrained the breadth of town development.[3]

A dearth of documentary material and the fact that no maps of St. Eustatius are known to survive from the seventeenth century make reconstruction of the early years of town development difficult. Records from an August 1639 meeting of the Zeeland Chamber in the

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[2] Tuchman, *The First Salute*, 22.

[3] There are historic references to an attempt to increase the Lower Town's breadth by the very Dutch means of claiming land from the sea. Jan de Windt, elaborating on the ills of piracy to the Heren in 1760, wrote "Others who won land from the sea with a great deal of expense and hard work, and built warehouses there to increase commerce, are now losing there capital, since trade is being obstructed." Attema, *St. Eustatius: a Short History of the Island and Its Monuments*, 36. Janet Shaw, a Scottish woman who visited Statia in 1775, described in her journal "an instance of Dutch industry little inferior to there Dykes; as one half of the town is gained off the Sea, which is fenced off by Barracadoes...." Shaw, *Journal of a Lady of Quality*, 136. Also, when the English seized control of St. Eustatius in 1781, Admiral Rodney who led the attack stated plans to break the dikes and destroy the warehouses to ensure the Statians would not plague the English any further. W.H. Peniston (attributed) "An Account of St. Eustatius 100 Years Ago" in *Bermuda Historical Quarterly*, vol. 7, no. 4 (1950), 164. Archaeological investigation did not find evidence of dike construction.

Netherlands refer to a warehouse for storing tobacco[4] which may have been located in the Lower Town to allow for easy export of the crop. Nineteen years later there is a reference to "well-stocked warehouses", but no indication as to exactly how many had been built or the manner in which they were constructed.[5] Archeaologically, data concerning the placement and construction of these very early warehouses has yet to be forthcoming.

Archaeological investigation has documented 121 visible warehouse structures in the Lower Town[6], most of which date from the second half of the eighteenth century[7] - Statia's heydey as a port of trade. It is likely that the ruins of warehouses constructed earlier than the latter half of the eighteenth century underlie the ruins that are presently visible.[8]

The ruins of warehouses visible today predominately consist of foundations, although four structures actually still stand. Study of these foundations and standing structures has shown that the foundations of the warehouses were constructed of mortared stone or limestone blocks. The visible wall remains show yellow

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[4] Attema, *St. Eustatius: a Short History of the Island and Its Monuments*, 18.
[5] Ibid.
[6] N. Barka, *Archaeology of St. Eustatius, Netherlands Antilles: an Interim Report on the 1981-1984 Field Seasons*, Manuscript, College of William and Mary, Department of Anthropology (1985.)
[7] Kandle, *St. Eustatius: Acculturation in a Dutch Caribbean Colony*, 141.
[8] Ibid.

brick, or more rarely red brick, faced or unfaced mortared stone, limestone block, and volcanic stone construction. Frequently walls demonstrate a composite construction of several of these materials. Some of the warehouse walls show evidence of having been plastered.

Yellow brick was commonly brought from Holland as ships' ballast and purchased by the Statians for building material. The frequently used limestone blocks were imported from Bermuda and were of the very soft limestone known as Bermuda stone which hardens after it is cut from the ground. Wood would have frequently been used because it was less expensive than stone and brick, although it was not always readily available on the island. Unfortunately, no eighteenth century wooden structures have survived in the Lower Town due to the violence of the Caribbean climate.

Additional construction details of this wharf area have been discovered archaeologically. A yellow brick floor was uncovered at structure 391 (see figure 25 for location.)[9] The bricks were laid unmortared on their edges in a decorative pattern of alternating horizontally and vertically oriented rows. Partial pavements of cobblestone were found in the area between structures 334 and 408[10] (see figure 23 for location), and this may mean that alleyways between structures were

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[9] Barka, *Archaeology of St. Eustatius, N.A.: an Interim Report on the 1981-1984 Seasons*, 37-39.
[10] Ibid, 32.

paved. Paved alleyways would have made unloading merchandise from ship to warehouse easier than hauling merchandise over sandy ground.

The earliest known rendering of the townscape the Lower Town is a print by Niccolo Mitraini done just before 1772 (figure 12.) This print depicts the Lower Town buildings as boxy one- and two- storey structures with plain gabled or hipped roofs. Windows are abundant and appear to be set high in the walls of the structures, and are arranged symmetrically across the buildings' facades. A drawing made by A. Nelson circa 1774 (figure 13), an engraving by K.F. Bendorp done in 1780 (figure 15), and a view of the town dating from 1790 (figure 16), all show simple structures with hipped and gabled roofs and abundant, high set windows akin to the structures in the Mitraini print. The 1774 drawing portrays a couple of the plain end gabled roofs as having longer slopes in the back, and shorter, steeper slopes in the front. Three storey buildings are the exception in all the prints and drawings.

A closer view of Lower Town architecture is a watercolor done about 1829 (figure 17) which depicts the section of the town nearest the Bay Path, a narrow, steep road carved into the cliff to connect the Upper and Lower Towns. One of the largest buildings shown (at the left of the watercolor with its broad side facing

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the water) is distinctive for its ornate gables which give it a traditionally Dutch appearance. It is the only ornately gabled building to be seen in any of the exisitng eighteenth or early nineteenth century renderings. Roof with plain end gables outnumber hipped roofs in this rendering. One Dutch gambrel-roofed structure is also shown.

Some structures in this early nineteenth century watercolor have overhanging second storeys. Most likely these overhanging levels were constructed of wood rather than stone or brick. Some of the overhangs are not supported by posts or pillars necessary to uphold the weight of stone and brick, and those which are supported have only thin posts.

It is difficult to tell if there was a consistent pattern in which buildings in the Lower Town were oriented across the landscape. The 1772, 1774, 1780, 1790, and early nineteenth century renderings show many buildings oriented with their narrow ends facing the water and street (in other words, oriented east-west.) Maps made after archaeologcial investigation also suggest that many buildings were oriented in this way (figures 19 - 25.) On the water side of the street, this arrangement would have allowed the greatest number of buildings to have waterfront access. On the cliff side, building narrow and deep would have allowed the largest number of buildings to be packed into the small

space available. However, a plan of Ft. Oranje in 1787 (figure 10) which shows building orientations in the Lower Town depicts many structures as oriented with their broad sides parallel with the shoreline (e.g. a north-south orientation.)

It is possible that, in the early stages of development, a consistent pattern of orientation existed, but as construction in the Lower Town became more intense buildings were constructed in any spot that was at hand. Both the archaeological maps and historic drawings and prints attest to a higgledy-piggledy arrangement of structures. An estimated 600 warehouses were crammed along the narrow beach[11] making the street, as one visitor in 1775 put it, "very narrow and most disagreeable."[12]

Warehouses predominated in the Lower Town, but were not the only buildings present there. The printing office, which produced the St. Eustatius *Gazette*, was located at the base of the New Path, a second path south of the Bay Path which connected the Upper and Lower Towns.[13] The Mitraini print of 1772 locates a Roman Catholic church in the center of the Lower Town (figure 12, labeled "5.") Private residences were also located along the bay. Some of these are mentioned in newspaper advertisements such as "The tenement on the Bay, with

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[11] Zimmerman letter.
[12] Shaw, *Journal of a Lady of Quality*, 36.
[13] St. Eustatius *Gazette*, 17 October, 1794.

the dwelling house, out houses and yard, situated near the foot of the New Path, next door to the Printing Office"[14], and "The House and Lot No. 26 consisting of excellent stores, a good Dwelling House, Cookroom, Stable, & every convenience which can render it fit for a Merchant or Tavern Keeper, having a good landing place and lying exactly in the center of the town."[15] Some merchants built extravagant houses in the Lower Town with bridges that connected the house with buildings on the opposite side of the street. Most people, however, lived in the Upper Town away from the noise and heat of the wharf area. As one visitor wrote, on the bay it was "a good three times as hot as it is up on the mountain; the breeze being cut off by the mountain its blazing hot."[16]

Early in the development of the Lower Town, the Waterfort (also known as Ft. Amsterdam) was built on the bay near Billy's Gut (see figure 3 for location) to safeguard the burgeoning wharf area and the contents of its warehouses. Its precise date of construction in unknown, but it is assuredly of an early date as its defensive purpose is known to have been defunct as early as 1726. The Waterfort is particularly interesting in relation to architectural styles in the Lower Town

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[14] Ibid.
[15] St. Eustatius *Gazette*, 17 August, 1792.
[16] Zimmerman letter.

because it contained within its walls an example of a very early building, two drawings of which still survive.

A drawing of the Waterfort from 1724 (figure 27) shows a low building with a hipped roof. On the front wall of the building were two doors and two small, high set windows. A door was also located on the north wall. This building looks similar to the simple, Dutch colonial buildings of Willemstad, Curacao and Cape Town, South Africa. These simple Willemstad and Cape Town structures have been said to represent a "core form", meaning that they are the product of a shared architectural idea behind Dutch colonial buildings[17] (for a diagram of one variation of the core form see figure 28.) The basic core form style meant "rectangularly-planned dwellings (which) had a door and window on one facade and, sometimes, an additional window on the short side. Roofs were either hipped or had plain end gables"[18], but variations on the form exist This manner of building harks back to early construction techniques in rural areas of northern Europe.[19] The appearance of the building at the Waterfort represents the northern European tradition more than it represents

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[17] The "core form" concept as demonstrated by colonial architecture in Willemstad, Curacao and Cape Town, South Africa is defined and explained by Martin Hall in "High and Low in the Townscapes of Dutch South Africa: the Dialectic of Material Culture" in *Social Dynamics*, 17, 2 (1991), 41-75.
[18] Ibid, 60.
[19] Ibid, 60-61.

a functional adaptation to the West Indian climate or a new architectural style.

In 1726 the Waterfort was remodelled into a two storey building to serve as slaves' quarters (figure 27.) The ground floor appears unchanged, but the dimensions given for the 1724 structure were 42.5 feet long by 20 feet wide while the new structure's dimensions were 54 by 21 feet. The new second floor had three small windows across the front wall, a door on the north wall, and a door on the south wall. The style of this building was only somewhat symmetrical, the second floor doors and windows on the front of the building being off-center with the gound floor doors and windows. Again, the roof was hipped, but after renovation it had a triangular feature at its front center. This feature is not drawn with enough clarity or detail to pin it down as a distinct architectural detail, but it could be a gable.

The Upper Town

In the seventeenth century St. Eustatius' agrarian economy did not require a compact town area. Pragmatically, many people would have lived dispersed among their respective farm properties on the central plain. In the eighteenth century, when the focus began to change to making the island into an entrepot, the

population became concentrated in close proximity to Oranje Bay in what developed into the Upper Town.

In 1715 Statians complained that the Upper Town was cramped, and island governor Jan Simonsz. Doncker petitioned the Heren X for permission to expand its limits. In 1662, there were only 330 Europeans and 840 slaves and Indians living on the island,[20] and by 1722 the population was still only 1204[21] - a difference of a mere 34 people. Doncker wrote in his letter to the Heren that, "as the island has become cultivated, the village is too small, and the unused end of the Company's meadow adjoins the village."[22] It seems the Statians crowded themselves by adhering to the West India Company's land policy which mandated that the maximum amount of land possible be used for cultivation.

The parsimonious Heren were unresponsive to the Statians' request and no additon was made to the village. Land and houses were at a premium. In the 1730s the island governor wrote that "some people are not ashamed to demand five ot six pieces-of-eight per year for a house that cost 3 or four pieces-of-

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[20] N. Barka, "The Settlement System of St. Eustatius", paper presented at the Society for Historical Archaeology annual Conference in Richmond, Virginia (1991), 6.

[21] Kandle, *St. Eustatius: Acculturation in a Dutch Caribbean Colony,* 118.

[22] Attema, *St. Eustatius: a Short History of the Island and Its Monuments,* 33.

eight...",[23] and that "no ordinary man could afford to buy a house."[24]

In 1736 another island governor, Johannes Heyliger, solicited permission to expand the village onto Comapny land. A year later the Heren tentatively consented, granted that the expansion be carried out in the least expensive way possible. This second effort at expansion was also never carried out due to the Heren's preoccupation with the looming Austrian War of Succession and a shortage of wood on Statia for building houses.[25]

Expansion would have become crucial in the latter part of the eighteenth century when the island experienced its commercial peak and the population grew substantially. The population jumped from 2000 in 1750 to 3000 in 1774. In 1790 the census totalled 7830.[26]

In addition to delimiting the Upper Town, an eighteenth century map[27] (figure.6) shows a small area

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[23] Ibid, 35.
[24] Ibid, 33.
[25] Ibid, 34.
[26] Ibid, 46. This total includes 4944 slaves. If some of these slaves lived on the plantation sites scattered around the island, the actual number of people resident in the Upper Town could be rather lower than 7830.
As a point of comparisson, David Watts ranks late eighteenth century Caribbean cities by population putting Cap Francois (with a population of 50,000) and Kingston, Jamaica (25,000) first. These are followed by Port-au-Prince, St. Domingue (10,000) and Bridgetown, Barbados (10,000.) In third rank are towns with populations between 6500 and 7000 such as Port of Spain, Trinidad and San Juan, Puerto Rico. All other smaller settlements make up the last category in which St. Eustatius would fall according to its 1791 population of 3000. D. Watts, *The West Indies: Patterns of Development, Culture, and Evironmental Change Since 1492* (Cambridge 1987), 378-379.
[27] The precise date of this map is not known.

to the south labeled "Nieuw Dorp" or "New Town." The 1780 Bendorp engraving also notes in the same location a "Nieuw Dorp" (figure 15, at far right, labeled no. 11.) Other eighteenth century and nineteenth century maps do not locate a New Town. The 1814 probate inventory of the estate of Johannes de Graaff[28], however, refers to in the Upper Town "Two spots of Land with the Buildings thereon situated in the New Town....", and also to "A Spot of Land situated in the Old Town...", and "A Spot of Land in Old Town...." An eighteenth century advertisement in the St. Eustatius *Gazette* mentions "That lofted house situated about the middle of New Town upon the Hill of this Island.... "[29]

This last reference offers one explanation as to where the New Town may have been located. Its mention of "the Hill of this Island" suggests that the town was not located at the southern end of St. Eustatius where some maps depict the "Nieuw Dorp", and where there is no hill and no evidence of structural ruins. Rather, a more likely location is an area just east of the town where there is a hill which was called "de Ronde Berg" ("the Round Hill", see figure 2.) Part of the land on this hill was Company land, a likely choice for town expansion considering the past procedures by which

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[28] The original inventory of de Graaff's estate is kept at the Algemeen Rijks Archeif, The Hague, Netherlands. A facsimilie is located at the St. Eustatius Historical Foundation Museum, N.A.
[29] St. Eustatius *Gazette*, 19 June, 1790.

island commanders petitioned to expand the town via the Company pasture.

The Upper Town grew rapidly, but in fits and starts. Despite its lacking a formal plan, it was by one eighteenth century visitor said to be "neat and well laid out, healthy, airy, and for the West Indies Beautiful."[30]

By the early 1740s the street grid was well-developed. A map from 1742 (figure 4) shows the basic outline of the road net. (Area A is the Lower Town, and area B the Upper Town.) Another map dating from 1743 (figure 5) gives a closer view of a section of the street system in the Upper Town, showing that a greater number of streets existed than are shown on the 1742 map. If these maps from the 1740s are compared with a modern street map of Oranjestad (figure 3), the basic grid pattern can be seen to have changed little over the years.

The street names on the 1743 map - Heerenweg (Gentlemen's Road), Kruysstraat (Cross Street), Agterstraat (Back Street), and Breedstraat (Broad Street) - have either gone out of use or are used to designate a different street than the one that originally held the name. The 1743 map fits, on a modern map of Oranjestad, (figure 3) into the

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[30] Zimmerman letter.

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rectangular area formed by the Kapelweg and Ft. Oranje Straat. The Prinsesweg runs through the center of this rectangular area. The Logeweg on the modern map was Krusstraat in the eighteenth century. The street labeled *Heerenweg* in 1743 is the unlabeled street west of the ,Logeweg on the modern map. The present day Prinsesweg is, on the 1743 map, the unnamed street that bisects the Heerenweg, Kruysstraat, and Breedstraat. This arrangement places the pastor's residence shown on the 1743 plan close to the Dutch Reformed Church (see figure 3.) The churchyard on the 1743 plan was at the point where the street now called the Prinsesweg met the Heerenweg, the point where the first Dutch Reformed Church was known to have been located in the early years of the colony.[31]

A French map of St. Eustatius made about 1781 (figure 8) and a 1795 English version of it (figure 9), show how the southern portion of the town street grid extended up to what was in the eighteenth century the Heerenweg. These plans show the roads meeting at four-way intersections in a slightly deformed grid. However, judging from the 1742 and 1743 maps, a map made about 1820 by W. Blancken (figure 11), and a modern map (figure 3) this was not the case. The 1781 and 1795 maps also do not include a road present on the 1743,

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[31] Attema, *St. Eustatius: a Short History of the Island and Its Monuments*, 65. For the location of this first Dutch Reformed Church see figure 4 where it is labled "56."

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1820, and modern maps which now forms the north border of the Wilhelmina park (see figure 3.)

The Blancken map also exhibits error by depicting the street grid of the Upper Town as being very rigid and straight. Actually, it had a looser quality which can still be seen in the Upper Town grid today. The alterations and deletions found in the 1781 and 1795 maps and the Blancken map do not demonstrate that the grid was replanned and relaid, but only the limitations or bias of the cartographer.

Within the Upper Town street grid the land was further divided with a market square near the Bay path, and into plots for housebuilding and cultivation. In 1742, the West India Company owned the pasture land bounded to the east by the Heerenweg, and to the south by rows of houses within the town (see figure 4, where it is labeled "23.") The 1743 plan illustrates how land was parceled into uneven *percelen* (plots) rectangular in shape and with their narrow end oriented towards the street (figure 5.) One block was divided into 12 plots, and another block of the same size into 16 plots. A larger area on the eastern portion of the same map was cut into 24 kleine percelen, or "small plots", but these plots were distributed among only six men. The 1814 probate of Johannes de Graaff's estate describes similar rectangular lots such as "A Spot of Land, sixty feet in length and thirty three feet in breadth" and "A Spot of

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Land situated on the Hill 80 feet Broad and 100 long...." The plots, this inventory shows, were numbered.

Different maps show different levels of building density and orientation within these plots. The 1742 map (figure 4) depicts in the Upper Town a couple of neat rows between four and six buildings with several isolated larger structures sitting behind them.[32] The 1743 map (figure 5) shows six houses lining the Breedstraat.[33] A 1775 plan (figure 7) basically duplicates the 1742 map, making it an unlikely representation of building density for the latter part of the eighteenth century. Likewise, the 1781 and 1795 plans (figures 8 and 9) show few structures lining the streets. The fact that these maps do not accurately depict the jumble of warehouses along the bay road in the Lower Town makes their representation of buildings in the Upper Town somewhat dubious. An eyewitness in 1780 wrote that in the Lower Town "warehouses were two deep for two kilometres along the Bay!" In addition, an account of a hurricane that hit St. Eustatius in 1772 describes a much higher building count in the Upper Town than some of the late eighteenth century maps illustrate. This account states that "At. St. Eustatia,

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[32] The larger structures belonged to the following families (by label number on figure 4: Doncker (24, 30, and 60), Rattery (29), Benners (14), Ellis (22), and Pantouflett (31.)

[33] The fact that this block was lined with six houses on one side might mean that this block of land was divided into 12 plots as another in the 1743 plan was.

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400 houses, on the higher grounds, were destroyed or
rendered untenantable; all the plantation houses, except
two, were blown down...."[34] A plan of Ft. Oranje (figure
10) which shows a small section of the Upper Town as a
string of many haphazardly oriented structures, probably
illustrates the most likely building configuration
judging from its careful diagram of the fort and its
plan of the buildings in the Lower Town. The building
labled "M" on this map is the second Dutch Reformed
Church.

Of the buildings in the Upper Town there appear to
have been few government buildings constructed
specifically to fit an offical purpose. Inside Ft.
Oranje was the Council House (see figure 10, where
labeled "D") and commander's house (figure 10, "A"),
both rather small.[35] On no eighteenth century map is
there reference to a *stadthuis* (state house.) The
Mitraini print identifies a "governor's residence" north
of the Bay Path (figure 12, labeled "6".) However,
there is no record of a building constructed
specifically to house the island's succession of
governors, nor is a governor's house identified on any
of the other eighteenth century maps. This was most
likely a private residence rather than an offical
building. It seems the local government sometimes

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[34] T. Southey, *Chronological History of the West Indies* (London 1968), 411.
[35] The other structures inside Ft. Oranje pertained specifically to the fort itself, such as the barracks, powder house, etc.

rented buildings from private citizens to serve as offices when they were needed. The probate inventory of de Graaff's estate mentions "A House and Lott at present occupied as a Secretary's Office...."

The only large scale public architecture in the Upper Town seems to have been religious architecture. A description of the aftermath of a hurricane in 1780 mentions that "The cathedral and four churches...were left standing."[36] Is the cathedral mentioned in this description the Roman Catholic church in the Lower Town? The four churches would have included the Dutch Reformed Church, the Anglican church, a Lutheran church, and possibly a second Roman Catholic church or the Synagogue.

Though nothing is known of the architecture of the first Dutch Reformed church, the second Dutch Reformed church (figure 31) is known to have been built in the mid-eighteenth century. Its ruins still stand today (see figure 3.) It is described by Attema below:

"It has a rectangular nave and a transept on the north side; the back of the choir is straight. There is a square tower against the north-west wall of the nave. The building is largely constructed from round blocks of natural stones.... Apart from this some limestone has been used (in the south-east and north-west gables of the nave) and some red and yellow bricks which came from Holland.... The church was originally plastered white inside, and so was the north-west side of the tower of the church, to serve as a landmark for shipping."[37]

[36] Southey, *Chronological History of the West Indies*, 476.
[37] Attema, *St. Eustatius: a Short History of the Island and Its Monuments*, 65.

The Dutch Reformed church, being located adjacent to Ft. Oranje, occupied a prominent geographical position in the Upper Town.

The synagogue Honen Dalim ("She who is charitable to the poor") stood nearby on a path that stems from what is now Fort Oranje Street.[38] It was constructed in 1739 by the substantial Jewish population on the island on a plot of land east of what was at the time the Breedstraat. Its location (see figure 3, label "c") was rather prestigious despite Statian governor Isaac Faesch's request that it be located in a place where it would not interfere with Christian services.[39]

The ruins of this synagogue, which includes four walls (without a roof) and an exterior staircase at the building's southwest corner, are still standing (figure 32). The walls were well-constructed of Dutch yellow brick with decorative basalt stonework accents at the entrance, windows, and building corners. The interior of the synagogue walls was probably plastered, and the building stood two storeys high with 25 arched windows to light the interior. The dimensions of the building are 40.2 feet (east-west) and 26.1 feet (north-south)[40], with the narrow end facing the street. Displaying a common feature of synagogues, the entrance was not on

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[38] For a detailed report on the architecture of the synagogue and archaeological excavations of its surroundings see N. Barka, Archeology of the Jewish Synagogue Honen Dalim, Manuscript, College of William and Mary, Department of Anthropology (1988.)
[39] Hartog, *History of St. Eustatius*, 58.
[40] Barka, *Archaeology of the Jewish Synagogue Honen Dalim*, 23.

the street side but on the opposite wall (in this case the west wall.) Though the path the synagogue sits on today is made narrow and dim by high continuous walls on either side, the eighteenth century arrangement of walls and buildings in this area is not known.

There is little information available concerning the other eighteenth century religious architecture on St. Eustatius. The Mitraini print of 1775 locates the Anglican church near Ft. Oranje just north of the Bay Path (figure 12, "8".) Other churches may or may not have been in the Upper Town. The Roman Catholic Church in the Lower Town was supposedly only for Statian burghers, there being a second Roman Catholic church for foreigners.[41] The Lutherans, not always well-received in Dutch colonies, did not have a traditional church-style building but in 1780 rented a large house instead.[42]

The Upper Town was the site of most domestic structures. It was open to the breeze and therefore not as hot as the Lower Town, it was removed from the cacaphony of noises associated with the wharf, and it provided significantly more space for building than the Lower Town did. It was said that in the Upper Town "resided the Governor and all the principle people."[43]

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[41] Hartog, *History of St. Eustatius*, 23.
[42] Ibid, 93.
[43] Zimerman letter.

Practically nothing is known about housing in the Upper Town in its earliest stages of development around the later part of the seventeenth century. There is only the mention of a "certain house, which belonged to Claes Zegers in the Dutch time"[44], which actually may or may not have been located in the Upper Town.

One document describes many of the houses in the Upper Town in the eighteenth century as being built of wood and situated close together in some streets.[45] Ruins of surviving examples of eighteenth century buildings in the Upper Town show that structures were also built of brick, some having two storeys and basements.[46] Associated detached buildings containing vaulted bake ovens of yellow brick were also present. Eighteenth century prints and engravings (figures 12, 13, 14, 15, 16, 17, and 18.) show many boxy mostly one storey houses and some two storey houses with hipped and plain glabled roofs. These renderings of the town, however, are not detailed enough to discern the materials individual buildings were constructed of.

Eighteenth century advertisements for real estate placed in the St. Eustatius *Gazette* give an idea of what house form on the island was like. An advertisement by

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[44] Attema, *St. Eustatius: a Short History of the Island and Its Monuments*, 51.
[45] Ibid, 35. Attema cites the proceedings of the Trial of Lieutenant Colnel Cockburne for the loss of the Island of St. Eustatius, London 1783. (Hammelberg Collection 120 B4, Koninklijke Bibliotheek, The Hague.
[46] Barka, in press, 9.

Johannes Heyliger, Jzn. offered for rent his "lot of land at White Hook, in the Town, called Mount Pleasant, with the buildings thereon, consisting of a sizeable dwelling house, containing a large hall, two chambers, and a cellar, an outhouse of two rooms, a spacious kitchen with an oven therein, a horse stable and other necessary buildings."[47] Another advertisement listed "Three separate Tenements, with Kitchens, Negro Houses, Necessaries, & Cisterns...built on a Lot of Land situated in the Town upon the Hill of this Island."[48] There was also for sale "That Lofted House situated about the middle of New Town upon the Hill of this Island, having Two Stories upon a Cellar, likewise a low House upon the same lot with negroe Houses, necessary and kitchen, and an extraordinary good Cistern."[49]

Owners of lofted buildings would sometimes rent the top storey to those who could not afford a house. For example, one advertisement from the St. Eustatius Gazette reads "Martins Clarencieux will rent the Loft over his Store."[50]

On the 1742 map, seven houses in the Upper Town are portrayed as being larger than the other buildings in the Upper Town which lined the street nearest the cliff edge (figure 4.) These large houses are called *plantagien* (plantations) on a 1775 map which is an

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[47] St. Eustatius *Gazette*, 17 October, 1794.
[48] St. Eustatius *Gazette*, 17 August, 1792.
[49] Ibid.
[50] Ibid.

updated copy of the one made in 1742. The large houses on the 1742 map then, were without a doubt plantation properties as well. Seven of these plantation properties on the 1742 map can be identified by owner. Five of the owners were Jasper Ellis (see figure 4, no. 22), De Erv. Benners (14), the widow Rattery (29), Capt. Joan. Z. Doncker (24), and Joan. Heyliger PrZn. (31.) The other two plantations in the Upper Town are listed as "Doncker's Oude Tempel" (60, "Doncker's Old House"), and Doncker's Nieuw Tempel (30, "Doncker's New House".)

The Doncker of the Old and New Houses referred to on the map was Simon Doncker, a successful merchant. The house labeled Doncker's Nieuw Tempel still stands near the modernday Wilhelminaweg in central Oranjestad (figure 3 where labeled "B" and figure 33.) The new Doncker house was built of Dutch yellow brick in the late seventeenth or early eighteenth century.[51] Its cellared, two-storey boxy shape and hipped roof resembles the houses in the eighteenth century prints and engravings of St. Eustatius. The floor plan of the house is simple. Each floor, including the cellar, consists of one large room. The ground floor was most likely the living area and the second floor a private chamber.

In the south yard of the Doncker house a buried stone foundation measuring 20 feet by twelve feet was

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[51] Barka, *Archaeology of St. Eustatius: an Interim Report on the 1981-1984 Field Seasons*, 51.

discovered through archaeological excavation.[52]   The foundation is not parallel with the Doncker house. Judging from a long stone wall that bisects the south yard and *is* alligned with the foundation, it is likely that the foundation was on property separate from that of the Doncker house.[53]   The foundation, oriented northwest-southeast, was a below ground cellar. Stones on the interior wall of the cellar were dressed, while the outside walls were undressed and irregular stone. The cellar appears to have been filled at the middle part of the nineteenth century, but the "foundation itself might be considerably older."[54]

The Zimmerman letter of 1792 contains a drawing of another eighteenth house in the Upper Town (figure 33.) This house, the owner of which is not known, looks remarkably different from the Doncker house. The house in the Zimmerman letter had a stone foundation and two storeys built of wood. A gallery runs through the center of the house on the first floor. The second floor acts as a roof over the first floor gallery, and the second floor is in turn covered by a hipped roof. Windows, taller on the first floor than the second, were shuttered.

Zimmerman also included a floorplan of the first floor of this house in his letter (figure 33.) The plan

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[52] Ibid, 53.
[53] Archaeological investigation around the wall supports this idea. Ibid.
[54] Ibid.

shows twelve windows (four on the front, four on the back, and two on each side) symmetrically arranged, which would have created a good crossbreeze. Doors are similarly arranged to maximize the interior airflow with a central door on both the front and back and each side. Instead of having one large room filling an entire floor as in the Doncker house, the first floor was divided into three rooms. There was a large, square central room with two smaller rectangular rooms flanking either side of it. The center room was labeled "large living room", and the two side rooms "guest room or bedroom." This floor plan is similar to the one described earlier in the 1794 St. Eustatius *Gazette* advertisement for the "lot of land at White Hook...with the buildings thereon, consisting of a sizeable dwelling house, containing a large hall, two chambers, and a cellar." This particular type of floor plan is interesting because it shows the same type of room use patterns found in houses of the Netherlands in the seventeenth and eighteenth centuries.[55], and shows the continuance of a deep tradition in building in this late eighteenth century Statian house late despite radical external variation from the European model.

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[55] C.W. Fock, "Culture of Living on the Canals of a Dutch Town in the Seventeenth and Eighteenth Centuries: the Rapenburg in Leiden" and H.J. Zantkuyl, "The Netherlands Townhouse and Why It Works", both in R.H. Blackburn and N.A. Kelly (eds.) *New World Dutch Studies: Dutch Art and Culture in Colonial America* (Albany 1987.)

Zimmerman wrote in his letter that most houses in the Upper Town were "of a single storey with a roof of eight or nine feet", and that some had at the ground floor "a verandah along the front of the building with a wooden balustrade...roofed by the first floor which also projects out as far as the ground floor." In the background of Zimmerman's drawing of the two-storey house is a simple one storey, squarish building with a hipped roof. The front facade had a center door with two windows on either side. This house appears to have had a stone foundation and a wooden body.

The original use of some surviving eighteenth century architecture in the Upper Town is not known. The former Judson library (figure 29), now a private residence, has the boxy, rectangular design and hipped roof seen on the prints and engravings of St. Eustatius dating from the 1700s. This architectural style was used for both warehouses and dwelling houses. Both floors of the former Judson library were constructed of Dutch yellow brick supported by a coursed, cut stone foundation. The walls are 1.6 feet thick and the building's dimensions 16 feet by 37 feet[56] The narrow end of the structure is oriented facing the street. This building had a prominent location close to Ft. Oranje and along one of the main town streets.

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[56] S. Sanders, *Architecural Style on St. Eustatius*, unpublished MA thesis, College of William and Mary, Department of Anthropology (1988), 55.

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The exterior of the Judson building has been altered slightly over time. A lithograph dated 1860 by G.W.C. Voorduin (figure 18) shows an arched doorway on the north wall which is no longer present. There is now a window in approximately the same place the arch once stood. The verandah which now extends the length of the north wall, is shown in the Voorduin lithograph as extending about three-quarters the length of the wall. The date the verandah was added is not known.[57]

Another eighteenth century structure in the Upper Town with an unknown early history is the building now called the Government Guest House (figure 34.) The Guest House sits at the nexis of several streets, adjacent to Ft. Oranje and close to the Dutch Reformed Church and the Doncker House (see figure 3, label "E".) This prominent location and the fine construction of the Guest House make it possible that the house was at one time a state building, but it is not identified on any of the prints or engravings which show the town and locate many of its important structures.

The Guest House is dated by its original ground floor brick portion, the construction of which places it in the early part of the eighteenth century.[58] This

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[57] Verandahs are not shown on most of the buildings in eighteenth century renderings of St. Eustatius. Of the eighteenth century prints and engravings, only the 1774 drawing shows a building with a verandah (figure 8;the building is in the Lower Town on the cliff side in the foreground.) The 1820 watercolor depicts two houses in the Upper Town with verandahs (figure 19.)
[58] The stone foundation walls under this brick portion, and the stone foundation walls south of the Guest House (in figure 40, the

section of the building has been altered over time so that it is difficult to tell precisely what the original appearance would have been Underneath the brick ground floor is a full, stone and brick cellar (figure 36) measuring 45.5 feet (north-south) by 17.0 feet (east-west.)[59], with the broad side parallel to the street From the cellar floor to the first level floor joists is a distance of 8.8 feet.[60] Cut into the east wall where the wall meets the floor of the ground level are six air vents. These vents, which let in fresh air and some light, are made by cutting box-shaped notches at the top of the wall and lining them with yellow brick. The original entrance to this cellar may have been via mortared stone steps which descend on the west wall slightly right of center. The cellar consists of one large room with a stone and yellow brick oven in the southeast corner.

The second level of the Guest House is wooden frame and dates from the nineteenth century. It looks now very similar to the way it did in the 1860 Voorduin

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east and west walls of structure 4) may together have been the foundation of one building which was altered at a later date (the east foundation wall of the Guest House and the east foundation wall of strucutre 4 known to have been built at the same time.) A second idea is that for an unknown reason only part of the foundation was built upon. In either case, it is a possibility that a structure existed on these foundations which pre-dated the the present brick portion of the Guest House, and that this earlier structure was destroyed. Barka, *Archaeological Investigations of Structure 4, Government Guest House, St. Eustatius, N.A.*.
[59] Barka, *Archaeology of the Government Guest House, St. Eustatius, N.A.: an Interim Report*, 28.
[60] Ibid.

lithograph (figure 18; the Guest House is the large building with eight windows.) The only difference is the roof which appears to have plain end gables instead of being hipped as it is today.

In the eighteenth century, the area surrounding the Government Guest House was more intensely occupied than it is now. Three buried buildings evidenced by their cellar walls were discovered archaeologically within the enclosed yard of the Guest House (see figure)[61], two of which (structures 2 and 3) date to the eighteenth century and were abandoned in the nineteenth century.[62] Structure 1 was built in the nineteenth century and will not be considered here.

Structure 2 (figure 37) was probably a two-storey building. Its cellar was finely constructed of Bermuda stone blocks and measured 34 feet by 13.75 feet.[63] There were two inset yellow brick air vents in the east wall. The cellar would have been entered from the north wall where there is a stone stairway. On the opposite wall is an "oval-shaped baking oven with a brick pavement in front."[64] The west wall contained a yellow brick arched

[61] The dates over which the Guest House yard was completely enclosed by stone walls are unknown. However, the compound wall adjacent to structure 3 overlies the southwest corner of structure 3, and therefore must have been built at some point after structure became defunct in the mid-nineteenth century. Barka, *A Progress Report on the Structural Aspects of the Government Guest House Complex*, 16.
[62] Ibid and Barka, *Archaeological Investigations of Structure 4, Government Guest House.*
[63] Barka, *Archaeological Investigations of Structure 4, Government Guest House*, 3.
[64] Ibid.

vault of narrow width with a yellow brick floor, but the purpose of this vault is not known.

Structure 3 (figure 38) was a large, probably two-storey building located about 16.3 feet west of the Guest House and 19.3 feet south of structure 2. Structure 3 is oriented in relation to neither the Guest House nor structure 2, but sits almost caddy-cornered to the Guest House's west wall. The interior of the cellar of this building measured 29.2 feet by 12.6 feet.[65] The cellar walls of the structure vary in width from 1.10 feet for the north wall to 1.55 feet for the east wall, and are constructed from coursed, cut field stone.[66] Cut into the east wall is what was probably an air vent built of yellow brick, and similar to the two airshafts in structure 2 and the airshafts in the Guest House cellar. Structure 3 has a yellow brick arched niche 2.75 feet wide on its north wall.[67] The purpose of this niche is not known. The cellar of structure 3 would have been entered by steps on its south wall which led downward to a dirt floor. The steps are positioned just slightly off-center on the wall.

Structure 3 had an underground one-room annex which will be called structure 3A (see figure 38.) The east wall of the annex is oriented parallel with the Guest House, but since its west wall is a shared wall - also

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[65] Ibid.
[66] Barka, *A Progress Report on the Structural Aspects of the Government Guest House Complex*, 15.
[67] Ibid.

acting as the east cellar wall of structure 3 - the
annex has a strange, angular shape.   Nonetheless,
structure 3A is finely constructed of yellow brick and
dressed stone.   Its vaulted roof has a two foot square
hatch above ground which served as an air shaft.   The
floor of 3A was packed dirt with a light admixture of
mortar, stone, and brick fragments.

An L-shaped wall was at an undetermined date
constructed in the cellar of structure 3 (figure 38.)
This would have meant the cellar of structure 3 could
have only been entered from the ground floor of
structure 3, and that 3A could only have been entered
from the steps that originally led from outside into the
cellar of structure 3.   There could have been no intra-
room traffic between 3 and 3A after the L-shaped wall
was built.   The reason for these alterations is
presently not known.

In summary of the material in this chapter, certain
traits can be stated as having been characteristic of
town planning and architecture in both the Upper and
Lower Towns on St. Eustatius, especially for the later
part of the eighteenth century.

The town did not develop according to a formal
plan.   The street pattern was a loose grid, meaning one
that conformed to the lay of the land and the natural,
agglomerative town growth pattern rather than a strict,

right-angled, pre-planned grid stamped on the land. There is no mention in surviving documents of state buildings to be planned around, so that the only public areas and public architecture may have been Ft. Oranje, the market square, and the churches and synagogue. The Anglican church, Dutch Reformed church, Ft. Oranje, and the market were all located close together, but in a row that lined the cliff of the Upper Town rather than converging in one planned space such as a market square.

It is impossible to tell at this point if or where specialized commercial districts developed within the town.[68] The Lower Town was the main commercial area, but it was also residential. Likewise, though the Upper Town was predominately residential, people may have owned shops and practiced cottage industry there. Likewise, whether or not there were "neighborhoods" in the town where the English, Jews, poor, rich, etc. lived in clusters is not known, although the Heerenweg ("Gentlemen's road") was probably a prestigious address.

Lots within the Upper Town grid were rectangular with their narrow ends lining the streets. These lots varied in size. A block may have been divided into six

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[68] Some shops carried many different types of goods. For example, the printing office in the Lower Town advertised in the St. Eustatius *Gazette* in 1794 that it stocked everything from books and printing supplies to household items and ships' articles. Although advertisements in the *Gazette* also show there were specialists such as hatmakers on the island, the town probably was not large enough to support actual commercial districts that could be divided by specialties in dry goods, warehouse/shipping, food, clothing, luxury items, etc.

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or eight plots.   In the Lower Town the system of lot division is unclear.   In both the Upper and Lower Towns, the lots were intensely occupied.   Structures were placed upon the lots often with their narrow ends to the street.   Neat rows of buildings, however, were the exception rather than the rule.

Architecture was simple.   Most structures were rectangular, narrow, and boxy, with hipped or plain end gabled roofs.   Building construction was often composite, using a mixture of yellow brick, field stone, Bermuda stone, and wood.   Many buildings in the Upper Town appear to have had cellars, and some houses had lofts.   Most buildings had only one storey.   If there was a second floor it was generally built of wood and sometimes overhung the ground floor with pillars supporting it.   Three storey structures were rare.

Building facades were symmetrical in their design. Windows were abundant and most often seem to have been shuttered.   Dormer windows were found on some buildings. Verandahs were present, but not common.

Not much is known about building interiors, but what evidence remains shows simple plans consisting of one large room per floor, or a large central room flanked by two smaller ones.   Kitchens and necessaries were located in outbuildings.

Chapter 3:   Town Planning in the Netherlands and the Dutch Colonies of the East and West India Companies

As a Dutch colony, it is likely that formative town planning and architecture on St. Eustatius would be drawn from the Netherlandish example.   Port towns, specifically, offer the best basis for comparison since the town on Statia was an entrepot.   By establishing a catalogue of general morphological traits of port towns in the Netherlands in the seventeenth and eighteenth centuries, it is possible to get an idea of the presence and persistence of Dutch urban traits in the town on St. Eustatius during the eighteenth century.   Secondly, it is necessary to compare the morphologies of port towns in other Dutch colonies established in the seventeenth and eighteenth centuries by the Dutch East and West India Companies with towns in the Netherlands and with the town on Statia.   This comparison allows evaluation of the degree to which urban traits in the Netherlands were standard in the Dutch colonies, of the possibility that there was a colonial pattern different from that of the metropolitan morphologies, and of how St. Eustatius is similar to urban aspects of colonial and metropolitan culture.

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The Netherlands

In the Netherlands many of the major port cities began development in the later Middle Ages. For example, the core of Haarlem where the town hall, church, and market square were located did not develop until the mid-thirteenth century, and Amsterdam did not begin developing until the mid-fourteenth century. This late-coming urban development meant that even by the seventeenth century many cities such as Klundert, Willemstad, Veere, Zieriksee, Delft, Sloten, and Amsterdam were still firmly enclosed within their city walls or water defences.

The enclosed town of the Netherlands is unusual when compared to other cities in Europe in the seventeenth century. Many other European cities had long past seen the stage of development reached by Netherlandish cities in the seventeenth century. In addition, the ideas of the Renaissance had a great impact on European town planning. The winding "organically" patterned streets of the Medieval type were being replaced by processional highways, sweeping vistas, and monumental architecture, all designed according to hyper-rational academic rules. Only a very few town plans in the Netherlands - those of Coeworden,

Willemstadt (figure 39), and Klundert (figure 40) - grew according to the ideals of the Renaissance Grand Manner.[1]

Overall, the Renaissance and later Baroque ideals never really became a part of the Dutch urban scape, despite a flourishing period interest in architecture, urban planning, and the decorative arts in Holland. This is in part due to the fact that in the Netherlands even land necessary for rudimentary urban development was scarce, much less were the vast tracts required for an "ideal" town available. It has also been suggested that the individualist Netherlands merchant, a driving force in country's economy, did not favor the idea of his residence fading into anonymity amidst marvelous state architecture.[2]

The Netherlanders had their own version of an ideal town. Dutch planner Simon Stevin was perhaps the most well-known of planners in the Netherlands. His plans (for an example see figure 41) diagramed neat, regular grids which incorporated a system of canals. The street grid was enclosed by bastions and ravelins, but the grid was designed to be expandable outside the walls when needed. Figure 41 , a plan for an ideal port city by Stevin, placed major state buildings in a line through the center of town. The royal palace and garden were at the top center, the main market square beneath that, and the offical church (*Groote Kerc*) and State House

[1] G. L. Burke, *The Making of Dutch Towns* (London 1956), 119.
[2] Ibid, 123.

(*Stadthuis*) nearby. Other blocks within the grid were allotted for specific types of markets including fish, meat, livestock, etc. Blocks were parcelled as perfect squares of equal size.

In actual practice in the seventeenth century, Dutch towns were generally one of three types, "rounded, with more or less circular streets, as in Leiden (figure 42), Haarlem (figure 43), and Gouda; or nearly quadrangular, with rectilinear streets, as in Delft (figure 44) and Alkmaar (figure 45); or finally a point, often of unequal sides, between two arms of water, as at Dordrecht or Mdemblik."[3] The streets followed a grid pattern, especially in areas where town extensions had been built. The extensions, many of which were built in the seventeenth century, were more rigid and used more right angles than the late Medieval portions of the town grids. A seventeenth century map of Zutphen (figure 46) and a seventeenth century map of Culemborg (figure 47) are clear examples of the contrast between the old and new styles of street grids. The evolution of the grid from curving to rigid was largely a function of the fact that an even grid plan could easily incorporate the canals so important to Dutch towns involved in trade. The grid, with its clean economy, was easy to plan and expand when needed. This made it a good option for towns in a country in which land for building was at a

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[3] J.E. Vance, *The Continuing City: Urban Morphology in Western Civilization* (Baltimore 1990), 226-227.

premium. Amsterdam (figure 48) demonstrates this type of grid design in which expansion is planned for ahead of time. Amsterdam began in the thirteenth century with a sea dyke south of the Ij and a dam across the Amstel, and was expanded in the seventeenth century with the addition of three semi-circular canals radiating outward from the city core. Enlargements in the street grid successivley filled in the land between the canals.

Within the street grid of a Dutch town were long, rectangular blocks of land divided into deep, narrow frontage lots. Narrow streets ran alongside the blocks. A section of land in the town core was allotted for the market square . These squares were small, in the Medieval tradition, rather than pretentiously vast like those of the Grand Manner.

The harbour area, the focus of a port town, was not idealized or monumentalized but rather a strictly functional commercial complex. To have monumentalized the harbour area would have been considered detrimental to trade by the Dutch merchants. The harbour area was needed for "stockpiling commodities and concentrating storage, transport, and insurance facilities at a single point" so that "it became possible to ensure regular, predictable, and controlled distribution on a long term basis...."[4] In this sense, in the very aesthetic madness created by the congestion of warehouses, docks,

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[4] J. Israel, *Dutch Primacy in World Trade, 1585-1740* (Chapel Hill 1982), 14.

merchants' offices, berths, the careenage, and shipyards was the reason behind the success of the Dutch port.

Even away from the harbour area the ostentatious architecture found in many other western European cities of the same period was missing. The architecture of palaces and state buildings was controlled and existed in easy commerce with the surrounding building styles. Aside from the lack of space available in Netherlands towns for pretentious building, different reasons have been suggested for this deviance such as the "middle-class attitude" and domestic focus of the Dutch people, the northern climate[5], the lack of an autocratic government, and the necessary preoccupation with simple physical and economic survival.[6]

However, much of the character of a Dutch port town had to do with the fact that commercial planning was considered to be more important than vanguard architecture. Town improvements meant deepening harbours, replacing wooden bridges with brick ones, and the paving of busy streets to decrease muck, rather than adding monuments or architecutral embellishment. Locations aligning with major waterways and navigable canals would be given over to market buildings, storage warehouses, merchants' offices and shops, the weigh house, and the guild halls. Particular occupations were

[5] P. Zucker, *Town and Square: from the Agora to the Village Green* (New York 1959), 196.
[6] Burke, *The Making of Dutch Towns*, 158.

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commonly concentrated along certain streets which often
came to be named for a professional emphasis such as
Cheese Street, Flower Street, the Canal of Glazers, and
Blacksmiths' Brook.[7]

Within the commercial area were several of a town's
major buildings. These consisted of the *stadthuis*
(state house or town hall), *Groote Kerk* (the offical
church), *Burgerwaghthuis* (the headquarters for a
citizens' watch), and a weighing hall[8], all located in
close proximity to each other. The *stadthuis* was
centrally located in town, often off the market square.
The *stadhuis* was allotted only a modest parcel of land,
and was architecturally relatively unadorned. The
Groote Kerk was usually situated close to, but not
directly off of, the market square. Architecturally, it
too was played down, rejecting the Gothic style
fashionable in western Europe for what is almost always
referred to as an austere neoclassicism. Dutch
architecture in general was unpretentious, reflective of
its secular rather than ecclesiastical development.[9]

The dominance of the unusually large independent
merchant constituent was a prime factor in deciding the
subdued architectural scale. The merchants' profession
demanded that they live in town. Therefore, the urban

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[7] Vance, *The Continuing City*, 229.
[8] Hugo-Brunt, *The History of City Planning* (Montreal 1972), 121.
[9] G.E. Pearse, *The Cape of Good Hope, 1652-1833* (Pretoria 1956),
7. During the latter part of the eighteenth century, however,
Dutch architecture became more ornate than it had previously been.

milieu was a mixed bag of wealthy citizens, average burghers, traders, and artisans[10] living side by side - or at least not in isolation from each other - with even the royal palace in the midst of it all.[11]

Residential areas were removed from the brisk activity of the commercial district. Within the residential zones the only commerical activity was cottage industry.[12] These areas also contained hospitals, charitable organizations, and churches. The division between the commercial and residential zones created one part of town that was very public, and another which was quieter and recessed.

Domestic architecture largely consisted of three to four storey town brick or stone townhouses. Houses were narrow and deep. In Amsterdam, even in the most affluent areas the greatest size lot offered was a "frontage of thirty-odd feet as against a depth of a hundred and ninety."[13] For the average citizen, the

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[10] The term "artisan" denotes bakers and butchers, carpenters, masons, smiths, shoemakers, tailors, barbers, coachmen, and market gardeners, as referenced from C.W. Fock, "Culture of Living on the Canals of a Dutch Town in the Seventeenth and Eighteenth Centuries: the Rapenburg in Leiden" in R.H. Blackburn and N. Kelly (eds.), New World Dutch Studies: Arts and Culture in Colonial Amercia (Albany 1987), 134.
[11] This is said to be the case in general, although the close quarters of rich and poor existed to varying degrees depending on the city. One reason for extant cohabitation of different economic classes in Leiden and Delft was the small lots and organic growth pattern which survived from the Middle Ages, a situation which did not exist in Amsterdam where rapid expansion in the seventeenth century was strictly regulated and there was subsequently greater social homogeneity. Ibid.
[12] Burke, The Making of Dutch Towns, 155-156.
[13] S. Schama, The Embarassment of Riches: an Interpretation of Dutch Culture in the Golden Age (Berkeley 1988), 311.

standard width was only twenty to twenty-five feet and the depth less than two hundred feet - often inclusive of the lot with a garden.[14]

Architectural ornamentation on the exterior of private residences was modest overall. In general, ostentatious ornamentation was reserved for the interior of the house. The greater part of the facade of a house was covered by large windows. The windows were the predominate source of light, and the light had to penetrate through the depth of the house. The slight space between windows was sometimes ornamented, but gables were the most extravagant embellishments. On the gable "a riot of sculptureed or molded detail was allowed free reign....(and) coats of arms, allusions to trade or even emblems from astrological beastiaries might appear."[15]

Despite a dearth of land suitable for construction, Dutch cities were more likely to expand outward than to overbuild within a localized area. Even in the highly prosperous seventeenth century, the average number of houses to net acre was only twenty.[16] The extreme narrowness of the streets, especially in poor areas, could bring a congested feeling. Some poor citizens lived in houses with the upper stories pushed so close together that attic dwellers on opposite sides of the

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[14] Vance, *The Continuing City*, 230.
[15] Schama, *The Embarassment of Riches*, 311.
[16] Burke, *The Making of Dutch Towns*, 155-156.

street could reach across and shake hands with their neighbors.[17]

The Dutch Colonies

The Dutch East India Company (VOC) and West India Company (WIC) were private business ventures established by successful Dutch merchants in the early seventeenth century.[18] The companies, which acted independently from one another, founded colonies in order to profit from the colonies' natural resources and/or strategic trading or victualling locations. The VOC and WIC managed the colonies, but ultimate jurisdiction was given to the government of the Netherlands.

The VOC focused on Indonesia, while the WIC was lisensed to operate on the west coast of Africa from the Tropic of Cancer to the Cape of Good Hope, the east and west coasts of America from Terra Nova (Newfoundland) south to the Straight of Magellan, and all islands between the above points.[19] Despite the lesser range of the VOC, it was the more profitable of the two companies.

Both the East and West India Companies had an overriding economic rather than ecclesiastic bent. The colonies were seen by the Company merchants as part of a

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[17] Vance, The *Continuing City*, 228.
[18] The East India Company was founded first, in 1602, and followed by the West India Company in 1621.
[19] Attema, *St. Eustatius: a Short History of the Island and Its Monuments*, 56.

business, and it was therefore the merchants' purpose to emphasize trade over all else, minimize costs, and maximize profits. This in combination with the fact that the master planners and military designers such as Stevin, Van Coenhorn, and Anthonisz were retained in Holland[20], meant that colonists were often left to their own devices concerning urban planning and architecture. Although the VOC and WIC sometimes employed technicians versed in the ideas of Stevin and other planners, it was often simply carpenters who constructed the forts, houses, and churches.[21]

The ideas of Stevin and his colleagues circulated throughout the Netherlands making the concept of the "ideal city" available for mass consumption. Stevin's plans would have appealed to Company merchants as he endeavored to create plans which would predestin towns for financial success, and incorporated areas for merchants within his plans. In the creation of a new colonial town built on undeveloped land, the colonists could take advantage of the grid plan to organize and control their environment. However, because the colonists had to cope with topographies and climates different from those of the Netherlands, and because building had to be done with limited materials and local

[20] D. Greig, *The Reluctant Colonists: Netherlanders Abroad in the Seventeenth and Eighteenth Centuries* (Assen 1987), 43.
[21] Ibid, 98.

talent, colonial towns exhibited variation from highbrow to lowbrow architecture and planning.

Batavia (present day Jakarta) was established by the East India Company, and is an example of a Dutch colonial town planned by professional technicians. Batavia was the headquarters of the VOC and intended as a trading haven *par excellence*. The town was not, however, originally planned according to an ideal model. Initially, Batavia was akin to a randomly growing Medieval Dutch town. Repeated attacks levelled this original town, and in the seventeenth century it was recomposed.

In its resurrected form, it resembled new towns in the Netherlands such as the seaport of Friedrichstadt.[22] Batavia's plan formed a rectangular grid of eight streets which were each thirty feet wide, a network of sixteen perpendicular, tree-lined canals, fifty-six stone bridges, fields for cultivation, and fishponds.[23] Traditional Dutch town houses lined the canals and walls which surrounded the settlement.[24] An early eighteenth century traveller remarked about one area of the town:

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[22] J.L. Oosterhoff, "Zeelandia: a Dutch Colonial City on Formosa (1624-1662)" in R. Ross and G.J. Telkamp (eds.) *Colonial Cities: Essays on Urbanism in a Colonial Context* (Dordrecht 1985), 52.
[23] G.J. Telkamp, *Urban History and European Expansion* (Leiden 1978), 31 cites J.L. Cobban "Geographic Notes on the First Two Centuries of Djakarta" in *Journal of the Malayan Branch of the Royal Asiatic Society*, 44 (1971), 108-150.
[24] Some of the wealthy Dutch in Batavia also adopted some elements of the local Indische culture into their lifestyle as "elite images." Telkamp (Ibid) cites P.D. Milone's study "Indische Culture and Its Relationship to Early Life" in *Comparative Studies in Society and History* 9 (1966-1967), 407-426.

"The Tijgergracht [Tiger Canal] possesses uniformly beautiful buildings, the most exquisite of the town. The beautiful aspects of this elegantly planted straight canal surpasses anything I have seen in Holland. Although one may find along the Heerengracht in Amsterdam or elsewhere more beautiful palaces or wider canals, all [these canals and streets] however do not match the delight and satisfying and pleasing view that this canal and others of Batavia offer to the eye."[25]

The closely regulated planning of Batavia was part and parcel with the strict control the VOC exercised over the citizens there. Unlike other towns which were at least somewhat oriented towards the private gain of merchants, Batavia was dominated completely by the VOC for its own profit. In this sense Batavia was only a skeleton of a town, its citizens stripped of control of events around them to even the smallest details.[26]

Zeelandia, established in the seventeenth century on Formosa by the VOC, was dominated by private merchants' interests rather than the VOC and was also elegantly planned. Its opulence was due in large part to Zeelandia being one of the most lucrative and crucial towns in the Dutch Asian empire. Built on undeveloped land, its plan was a neat grid. An eighteenth century Dutch visitor described it as "perfectly and beautifully built as any city in Holland, although in part not so magnificent in houses. The streets had been paved with square bricks, kept very fine and clean by our people."[27]

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[25] L. Blusse, "An Insane Administration and an Unsanitary Town: the Dutch East India Company and Batavia (1619-1799)" in R. Ross and G.J. Telkamp (eds.) Colonial Cities: Essays on Urbanism in a Colonial Context (Dordrecht 1985), 65-66.
[26] Ibid.
[27] Oosterhoff, "Zeelandia: a Dutch Colonial City on Formosa", 51.

As a contrast to the plans of Batavia and Zeelandia there is the Dutch colonial city of Malacca (figure 49.) Malacca was not created *ex nihilo* but after a pre-existing Portugese plan. This original town area located within defensive walls lacked the neat, tree-lined canals and streets, and other Dutch trademarks making it distinctively unlike other "replica cities" such as Batavia and Zeelandia. The gridded extension to Malacca designed by the Dutch is a sharp contrast to the original curving, winding street system laid by the Portugese.

Cape Town, South Africa differed from Batavia, Zeelandia, and Malacca in that it was neither an agricultural or shipping settlement, but simply intended as a stopping place on the way to other posts in Asia. It was nonetheless predominately occupied by Dutch merchants.

Settled in the seventeenth century, professional architects and planners were sent to the Cape who designed its neat street grid, fort, and elegant architecture (figure 50.) In 1700, Cape Town mainly consisted of the Company's gardens, a fort, church, a cluster of streets near Table Bay, and three sections of land set aside for citizens' houses and gardens.

By 1767, a gridded extension had been added northwest of the Company garden. Instead of the narrow, rectangular blocks common in Dutch cities, the extension

was composed of square-shaped blocks. The blocks were divided into plots of different sizes. Some of these plots were the long, narrow-frontage types typical in Holland, but others were small and square. A market square and public well was positioned near the center (but not at the precise center) of the extension. The market was positioned away from the church as it usually was in Dutch towns. Likewise, the parade ground which had been built on land previously privately owned by burghers, was situated at a respectful distance from the church. The town was protected by a pentagonal fort modelled after the design most popular in the Netherlands.

Cape architecture was deeply influenced by architecture in the Netherlands, Germany, and their bordering countries[28], and is largely of the simple baroque and neoclassic style. "In spite of these European roots it would be wrong to assume that all the products of Cape culture were local manifestations of the European tradition, since this would deny the inidividuality of the Cape product. For at the Cape this functional, earth-bound peasant tradition of architecture developed a style suited to the needs of landowners, an evolution which could not have taken place in Europe."[29]

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[28] M. Hall, "High and Low in the Townscapes of Dutch South America and South Africa: the Dialectics of Material Culture" in *Social Dynamics* 17, 2 (1991), 49.

[29] Hall (Ibid) cites A.M. Obbolzen, et al, *The Cape House and Its*

New Netherlands in North America, viewed merely as a fur trading outpost, was not designed by professional planners. The burghers did the construction of private and public buildings themselves.[30] Architectural styles adhered to the Dutch tradition in some places not changing in style for over 150 years.[31]

Towns in the New Netherlands area, such as Albany and New Amsterdam, grew aglomeratively. This random growth pattern, as in Leiden and Delft, discouraged the formation of discrete neighborhoods into which the social classes might have been separated. In seventeenth century New Amsterdam, employees of the WIC rubbed shoulders with "the town's regular physician, the midwife, the surveyor, brewers, dominies, the glassmaker and limner, captain of the rattlewatch, city drummer, carpenter and smith, New Amsterdam's poet, weigh porter, tailor, baker, hatter, and many of the tavern keepers."[32]

In South America, Berbice, Guiana; Paramirabo, Surinam; and Recife and Mauritsstad, Brazil illustrate the range of what a Dutch colony could be.

Berbice was small and unplanned. In the eighteenth century its buildings were scattered randomly across the

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Interior (Stellbosch 1985), 62. The house in figure (top) is an example of how the form of the traditional Netherlands *landhuis* was incorporated into a Cape house.

[30] Greig, *The Reluctant Colonists*, 98.

[31] R.H. Blackburn, "Transforming Old World Dutch Culture in a New World Environment: Process of Material Adaptation" in R. H. Blackburn and Nabcy A. Kelley (eds.) *New World Dutch Studies: Dutch Arts and Culture in Colonial America, 1609-1776* (Albany 1987), 104.

[32] Greig, *The Reluctant Colonists*, 103.

landscape. Most of the buildings were constructed of wood and thatch.[33] Only thirteen of the town's structures were built of stone, including the Lutheran church and the Lutheran preist's house[34], a grocery store, warehouse, the governor's house, and eight other houses. Some town officals lived close to the fort, which may explain the proximity of eight of these stone houses to Fort Nassau. Other officials and citizens who could afford to lived on country estates. Separated from the main part of town by the river was the *slavenburg*, or slave village.[35]

Paramirabo (figure 51) was the capital of Surinam, but nonetheless languished in neglect for many years. In the late seventeenth century it was still mainly an outpost for trade and agriculture, possessing a few plantations and "twenty-seven dwellings, more than half of them grog shops"[36] which were concentrated around the fort. When Surinam became a chartered colony and Sommelsdijk was appointed governor, public buildings were constructed, planned streets were laid, and Paramirabo became more upscale.

Paramirabo was designed as a grid of mostly long, narrow, rectangular blocks, although in one area the

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[33] A. Thompson, "Dutch Society in Guyana in the Eighteenth Century" in *Journal of Caribbean History* 20, 2 (1985), 177.
[34] Though the Reformed church was unwaveringly the largest and most prominate in Dutch colonies, in 1770 in Berbice the Lutheran church held the honor.
[35] Thompson, "Dutch Society in Guyana in the Eighteenth Century", 177.
[36] Grieg, *The Reluctant Colonists*, 136.

blocks were square (figure 51.) Incorporated into the plan were two canals, one of which emptied into the Surinam River. The town's fort, Fort Zeelandia, was of the typical Dutch pentagonal plan. Adjacent to it off the parade were the *stadthuis* and Company house. The town also had a hospital and a synagogue, the latter prominately located close to the square.

Recife also began as a minor and insecure settlement. It was remade by Johan Maurits, a wealthy Dutchman with grand ideas, and became a town where there was "all splendor and ornamentation in overabundance" and "the trade, the cultivation of land and all civic comforts bloomed and grew."[37] Initially, Recife was Medieval in character, being entirely enclosed by thick walls with bulwarks and palisades. Two parallel streets, the Pontstraat and Heerenstraat (see figure 52) were the first laid. They were followed by a third which crossed over a dike, and eventually by several other intersecting streets.[38] The street grid finally took the form of long, narrow, rectangular blocks.

The square was located near the center of town. Adjacent to the square were the church and government buildings, the palace of the *Hoge Raad* (Lords Council), and the weigh house. Early in the development of the town the market had been located in the area of the

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[37] H. van Nederveen Meerkerk, *Recife: the Rise of a Seventeenth Century Trade City from a Cultural-Historical Perspective* (Assen 1989), 210.
[38] Ibid, 95.

square, but it was later moved near Moriaensteegh (Black Man's Alley), Jodenstraat (Jews' Street), and Wijnstraat (Wine Street) where the houses of prostitution and taverns were. On the side of town opposite of where market was located were the elite addresses of the Ponstraat (Ferry-boat street), Nieuwstraat, Geweldigerstraat (Master-at-Arms Street), and Zeestraat. Wealthy citizens also resided around the square and the Heerenstraat ("Gentlemen's Street".)

After only seven years of development Recife was so crowded that not another structure could fit within its walls.[39] The settlement expanded onto the island of Antonio Vaz, located between Recife and the mainland. Essentially, this development took place ex nihilo; Antonio Vaz supported only a few houses and bulwark. The island was first substantially fortified, and afterwards the marshy land was prepared for occupation through the construction of canals and embankments. The new *Gemeenteraad* (Provincial Council) was constructed on Antonio Vaz in 1639. With these initial hurdles behind him, Johan Maurtis went about designing a suitable and feasible town plan for an extension to Recife which would be called Mauritsstad.

Mauritsstad is actually in two parts, *het Grootkwartier* and Nieuw Mauritsstad. The *Grootkwartier* was as large as Recife and contained the governor's

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[39] Ibid.

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house and a plantation which beloned to a member of the *Hoge Raad*. Between the governor's house and the plantation stood the *Groote Markt*, or main market square. The market was lined with houses of wealthy burghers, the *stadthuis*, and the offices of merchants.[40] Nearby was the French church.[41] The *Grootkwartier* seems to have answered the immediate need for expansion outside of tightly-packed Recife as its plan lacks formality.

In contrast, descriptions of Nieuw Mauritsstad's plan such as "a rationalism of the Mannerist phase of the high Renaissance"[42] depict Maurit's desire to plan a town fitting as the headquarters of the Dutch West India Company. This does not mean that the plan was retrograde. More aptly, the plan shows the resurgent interest during the Enlightenment in Mannerist ideas which meashed well with contemporary interests in climate and landscaping. However, research seems to indicate that for the most part Maurits did not consult those designers famous for their "ideal" town plans, but pragmatically turned to engineers who could manage the hydraulic problems created by the merchurial Beberibe and Afogados rivers.[43]

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[40] Ibid, 99.
[41] Ibid.
[42] Greig, *The Reluctant Colonists*, 110.
[43] Van Nederveen Meerkerk (Ibid) has researched the possiblity that the plan for Nieuw-Mauritsstad was inspired by Medieval *bastides* of central France and similar English orthogonal plans, as well as the possible contributions of rules similar to those of the Spanish *ordenanzas*, and Dutch Utopian planners such as Pieter

Not much is known about the arrangement of buildings within Nieuw-Mauritsstad. There was a central square, but it is impossible to tell from the lots (which were mostly regular in size) or the streets (a straight network with canals) what kinds of buildings were located in certain areas. The formal plan facilliated the rigid social distinctions that developed as particular social classes were pushed into specific areas. The town possessed a hospital, orphanage, and poor house, though the locations for these are unknown. Nieuw-Mauritsstad's structures seem to have been overshadowed by Huis Vrijburg, the impressive residence Maurtis designed for himself.

For the Caribbean, information regarding urban planning for seventeenth and eighteenth century Dutch colonies is scarce. Records and much material evidence for islands such as Aruba, Saba, and St. Maarten has been lost. The island of Curacao is an exception, and still retains some of its eighteenth century architecture in its capital, Willemstad.

Curacao was important to the Dutch as a strategic holding. As was usually the case in Dutch colonies, the island emphasized trade as its mainstay and was

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Post. Although the latter can be nearly ruled out, the former suppositions remain plausible. The actual artist of the plan is unknown, but van Nederveen Meerkerk suggests Christovao Alvares, the Lobrecht brothers, Rene de Monchy, Tobias Commersteyn, Frederick Pistor, Andreas Drewisch, Hendrick Van Bercham (Perchems), Egbert Vaer, Pieter Schilder, Haye Dircksz., Belchoir Alvares, the *Caertmaecker* Goliath, and Maurit's father Jan de Middelste as possiblities.

especially profitable as a nexus for the slave trade within the Caribbean and with the northeast coast of South America. Its primary settlement, Willemstad, was founded in 1634.

Willemstad expanded from three streets laid in the first half of the seventeenth century. The first residential area in the town was called Punda (figure 53), and was designed as a grid of narrow streets. When the town became congested an extension was made across the bay in 1707. This new quarter, Otrabanda, was an irregular grid of streets which were slightly wider than those in Willemstad.

Early architecture in Punda is akin to the Dutch canal houses of the Netherlands.[44] They were "built with imported bricks and tiles, and were designed for the needs of merchants[45], with a warehouse or shop on the ground floor and additional residential storeys above, covered by a pitched, tiled, roof with a dormer window."[46] The houses in Punda changed throughout the eighteenth century with the addition of open galleries and ornate gables[47] One idea is that the galleried houses were the product of a blending of Dutch and

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[44] Hall, "High and Low in the Townscapes of Dutch South America and South Africa", 51.
[45] The economy of Curacao was initially commerical instead of agricultural, rather than the other way around which was more commonly the case. D. Buisseret, *Historic Architecture of the Caribbean* (London 1980), 17.
[46] Hall, "High and Low in the Townscapes of Dutch South America and South Africa", 49-51.
[47] Ibid, 51.

Iberian forms, the Iberian influence coming from Dutch/Jewish colonists who moved from Brazil to Curacao.[48] However, the galleried house may have also been inspired by the *loes hoes*, or European aisled barn.[49]

Willemstad, like St. Eustatius, Mauritsstad, and Paramirabo, had a substantial Jewish population. In the early part of the nineteenth century, half of the white population on Curacao was Jewish.[50] The Jewish population in Willemstad did not draw attention to themselves architecturally[51], with even the synagogue blending with easily with the surrounding architecture in Punda (figure 54.) The interior of the building, however, is very similar to the synagogue in Amsterdam.

Willemstad's Fort Amsterdam, originally planned as a typical Dutch pentagonal fort, was actually built with only four bastions. As in St. Eustatius, many of the government buildings were located within the main fort's walls. The governor's house, Dutch Reformed church, barracks, and government offices were all located inside Fort Amsterdam.

There are some aspects of seventeenth and eighteenth century Dutch town planning and architecture

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[48] Ibid, 52.
[49] Grieg, *The Reluctant Colonists*.
[50] Hall, "High and Low in the Townscapes of Dutch South America and South Africa", 57.
[51] Ibid.

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that are generally continuous whether the towns were in the Netherlands or its colonies. Streets and canals were almost always narrow and laid according to a gridded plan of long, narrow, rectangular blocks. The lots within the blocks were modest in size, even for those who could afford to be extravagant, and rectangular in shape with a narrow frontage. Street names duplicated themselves in Dutch towns on different continents. Similarly, colonial forts shared names with forts in Holland. Plans for fortifications were often of a pentagonal design, and included a compact arrangement of government buildings within their walls. The market square was centrally located, but small and unmonumentalized. In colonial towns, the Company garden would be located within the town boundaries.

Both domestic and public architecture were modest. Houses were rather small in size and rectangular, with their narrow end facing the street. Ostentatious ornamentation was reserved for the interiors of buildings, the primary form of exterior ornamentation being gables. In the Netherlands and in colonies such as Cape Town and Mauritsstad, the simple baroque and neoclassic styles were most popular. In colonies which had to make concessions to climate and available materials, variations in the Dutch style emerged. However, the variations often mainly affected the

exterior of a building while the interior plan remained traditional.

St. Eustatius shares many features common overall to Dutch towns, but also deviates from tradition. As initially merely a strategic holding, Statia was not granted professional planners to design its townscape as Mauritsstad, Batavia, and Cape Town were. The colonists allowed the system of streets to develope aglomeratively, but the grid nonetheless had long, narrow, rectangular blocks in the Dutch manner. The rectangular, narrow-frontage lots within these blocks were typical of lots in Dutch towns. Statia's topography prevented the incorporation of canals within the town plan. The topography was also determinative of how the town was separated into a very public, mostly commericial district, and a removed, private, residential area. This arrangement, though constrained by the lay of the land, is also found in most Dutch towns. The names of Statia's streets in the eighteenth century such as Heerenweg, Breedstraat, and Agterstraat, duplicate names in Dutch towns around the world.

Statia's Fort Oranje did not follow the pentagonal plan that was the favorite of Dutch designers. It had only four bastions. It was constructed by the colonists, although some of the brick and stonework

might have been done by skilled craftsmen sent by the Heren from outside.[52]

Architecture was modest as it was in other Dutch towns.[53] Although plain end gables were used frequently, the ornately sculptured gables found in the Republic and colonial towns such as Cape Town and Willemstad are not known to have been used on Statia aside from one example in the Lower Town. Roofs on Statia were also often hipped in the English style. Verandahs ran along the front of houses at the ground floor and were roofed by an overhanging second storey, but were not ornate like the ones on Curacao.

The frequent orientation of houses with their narrow ends to the street, the use of lofts, and (at least in some cases) the interior floorplan were traits shared with Dutch houses. The height of the buildings on St. Eustatius could not imitate the townhouses and warehouses of Holland due to the frequency of

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[52] Governor Lamont of St. Eustatius, dissatisfied with the crumbling walls of piled stones that originally formed Ft. Oranje, wrote the Heren around 1701 and asked for skilled bricklayers and carpenters to rebuild the fort walls. Attema, *St. Eustatius: a Short History of the Island and Its Monuments*, 22.

[53] When there was luxury it was in the interior of the house, as was the typical practice. Zimmerman's letter reads, "Fashionable people have decorated the inside walls with English wall-paper, and most of the chairs are wooden, from England and North America. Moreover, there are large mirrors, and, under these, mahogany tables laden with the finest crystal glass I have ever seen: extra large covered bowls, all beautifully cut and which could hold at least six bottles of wine. Similarly other glasses, candle-sticks, candelabras, etc. All the tables, sideboards, chests and similar things here are from solid mahogany." Likewise, the inventory of de Graaff's estate lists much glassware, china, silver, gold, and mahogany chairs, presses, tables, bookcases, a couch covered in Moroccan leather, etc.

hurricanes. Willemstad, Curacao,. a Dutch Caribbean island which does have traditionally Dutch tall buildings, is out of the regular path of hurricanes and was not ecologically pressed to alter the height of its buildings.

Destruction from hurricanes also encouraged Statians to build the ground floor of buildings of stone or brick, and the second storey of out of wood. This created a sturdy foundation, and was less expensive to rebuild after storms hit. The Caribbean heat and fragility of glass made shuttered windows the logical choice over the large glass windows typical in Holland. Buildings largely seemed to have retained the rectangular, boxy shape typical of Dutch structures.

The arrangement of a centrally located market square with the Dutch Reformed church nearby to - but not directly off of - the square, is common to Dutch towns. As in other Dutch colonies, the Company garden was located within the town boundaries. The erratic placement of buildings in both the Upper and Lower Towns contrasts, however, with the neat rows of structures in Netherlandish towns and many of the colonies. Statia's "unplanned" placement of buildings is similar to the random design of Berbice, Guiana in the eighteenth century which also developed without a formal plan.

Ecology (e.g. topography, heat, hurricanes) helped to change some aspects of St. Eustatius' urban planning

and architecture from the traditional Dutch model. Likewise, economics (the reluctance of the parsimonious WIC to subsidize Statia, the expense of acquiring and maintaining particular building materials) impacted the way the townscape was executed. There were also cultural factors that had equally significant effects, and these will be explored in the following chapter by comparing eighteenth century Oranjestad with other colonies in the Caribbean region founded by the English, Spanish, French, and Danish. This will place traits in Oranjestad that appear to be Dutch in a larger context – a West Indian context. The comparison will also point out what characteristics of Oranjestad are similar to and different from characteristics of colonial towns founded by different countries, and will make clearer the distinction between what represents Dutch cultural continuity and what is indicative of West Indian colonial culture in general.

Chapter Four: Spanish, French, Danish, and English Settlements in the Caribbean Region

Many colonial towns in the Caribbean region, with the exception of some Spanish Towns, were trade oriented. As port towns they can be readily compared morphologically with St. Eustatius. The comparison is never simple. Many colonial towns changed hands numerous times so that, for example, a town which may have originally been planned by the French may have been occupied and subject to changes by the English. Due to the necessary limits of this paper and the spotty information available relating to Caribbean colonial urban planning, the comparisons between colonies in this chapter will be broad.

Spanish

Colonial towns in the Spanish Indies were originally established as entrepots, but the Spanish later turned to the extraction of mineral and agricultural resources. Their colonies also differed from those of other countries with settlements in the Caribbean area in that the Spanish had an ecclesiastic focus.

The plan of a "classic" Spanish settlement is generally thought to be a rigid grid in a chessboard pattern with a spatious, central plaza, and monumental architecture. In reality, the Spanish did not always use this type of plan.[1] The grid plan was not employed in the early years of colonization, and only appeared around the 1530s.[2] Sixteenth century Santo Domingo, the capital city and primary port in Hispanolia, was the first town to develop according to a regular grid plan in the Americas.

Rules for planning colonial towns were regulated by the Spanish government in the *Ordenanzas*, which allotted precise plots for public and private buildings, gardens, and farms. The grid extended from the town itself to cultivation plots outside the village area.

The chessboard style grid increased in popularity in the Spanish colonies in the seventeenth century. Seventeenth century Spanish colonial towns had rectangular, central plazas which conformed to the terrain. Radiating from the plaza would be eight streets each 25 feet in width, which crossed to produce a series of blocks 200 feet by 250 feet. The blocks

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[1] The chessboard style of town plan was not used in Spain itself. The typical Iberian plan was one of winding streets and few right angles. This type of irregular plan was used in fifteenth century settlements such as La Navidad and Isabela. R. Morse, "The Urban Development of Colonial Spanish America" in L. Bethel (ed.) *The Cambridge History of Latin America*, vol. 2 (Cambridge 1984), 72.
[2] D. Stanislawski, "The Origin and Spread of the Grid Pattern Town" in *Geographical Review*, 36, 105.

were then sectioned into four lots apiece.[3] The state church, Cabildo, and jail were positioned around the square. Leftover plots near the square were given over to high officials.

The origins of the Spanish colonial grid are disputed. It has been suggested that the plan is based on the ideas of Vitruvius, that it was inspired by the layout of Medieval bastide towns in southern France and Northeast Spain, and that the plan was the offspring of ideas present in Italian Renaissance painting.[4] These ideas are out of favor, and the grid has more recently been explained as having its roots in Medival Spanish treaties that drew from Aquinas' *On the Governance of Rulers*.[5] In this vein, "a town founding was a liturgical act sanctifying newly appropriated land. Urban design was a vehicle for transplaned social, political, and economic order, and exemplified the 'mystical body' that was central to Iberian thought."[6] Of course, the grid also functioned pragmatically as a simple way of partitioning land, and was easy to expand. Furthermore, its design easily incorporated the segregation that arose from rigid Spanish social hierarchy.

The average Spanish conqueror and colonist, however, was not well versed in the subtleties of urban

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[3] R. Morse, "The Urban Development of Colonial Spanish America", 75.
[4] Ibid, 68-69.
[5] Ibid, 69.
[6] Ibid.

design, and unless there were specific orders and assistance from the ruling regime towns plans evolved according to what the colonists felt was practical. In the early seventeenth century, if left to their own devices, the colonists often strayed from the grid example. In the eighteenth century, when the *Ordenanzas* were not as stringently enforced as previous, many towns developed freely and agglomeratively even though Spanish gridded towns surrounded them. Spanish towns varied from "improvised and jumbled mining towns, cramped and fortified seaports, and straggling rural hamlets as well as spacious and regular administrative centers."[7]

St. Joseph, Trinidad, founded in 1592, had several of the planning characteristics commonly found in Spanish colonial towns. It was located inland, as most Spanish colonial towns were, to make it less vulnerable to attack than a coastal site would have been.[8] The plan of St. Joseph adhered to the *Ordenanzas*, designed with a central plaza surrounded by a church, town hall, governor's palace, and prison. Other lots in the town were set aside for colonists, but Indians were probably excluded from land ownership.

In a 1637 description, St. Joseph was said to support about thirty houses "made of earth stamped solid, which they call tapias, and roofed with thatch or

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[7] Ibid.

[8] L. Newson, *Aboriginal and Spanish Colonial Trinidad: a Study in Culture Contact* (London 1976), 116.

other combustible material.[9] All buildings in St. Joesph in fact, including the church, were constructed from wood, mud, and straw.

The town was destoyed by fire in the early eighteenth century, and partly lost its original configuration. Public buildings that had been destroyed were rebuilt in new locations. Estate owners whose houses had burned did not rebuild their houses but moved to their estates outside of town. The governor wrote that "in town there are not more than twenty houses, most of them belonging to married women, widows, spinsters, and commoners."[10] This desertion of the town by the estate owners had such an impact that they were ordered to move back to town and live by the market square.

In the second half of the eighteenth century, St. Joseph faced destruction when the seat of government was moved to Port-of Spain on the coast, and again when an earthquake in 1776 severely damaged the town. In 1777, the town consisted only of a church and about ninety houses covered with straw, palisaded with roseau, plastered with a combination of mud and cut grass, and whitewashed.[11]

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[9] Ibid, 117.
[10] Ibid.
[11] Ibid, 118. Not all architecture in the Spanish colonies was this simple. In seventeenth century New Grenada, some wealthy citizens and officals lived in two storey houses with tile roofs and interior courtyards, although the poorer citizens still lived in small, thatched roof houses. R. Morse, "The Urban Development of Colonial Spanish America", 80.

French

French colonial towns in the Caribbean were usually minor settlements crowded within fort walls. Irregular town plans were typical.

In the eighteenth century, the island of St. Lucia was controlled by the French who established the port of Castries there. Part of the site on which the town was founded was below sea level, and had to be filled in and enclosed. Colonists were granted "land under water" under the condition that they filled the land and made it habitable, but swampy areas persisted in some areas where grantees did not fulfil their agreement.[12]

Castries had a market square 336 feet by 292 feet with a courthouse at its center.[13] The courthouse was called an "eyesore" by a nineteenth century visitor, and was removed in the nineteenth century by an English governor who remodeled the square.[14] Most of Castries' public buildings such as the Protestant church, the asylum, government building, and jail, were constructed after the English took control of the island in 1803.

French control at St. Kitts, like at St. Lucia, was contested by the English. The French occupied part of St. Kitts in the early part of the seventeenth century, and finally took control of the whole island between

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[12] Breen, , (London 1970 [originally 1844]), 14.
[13] Ibid, 16.
[14] Ibid.

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1666-1671. After 1671, it was the English who possessed sole control of the island.

The port town of Basseterre, the captial of St. Kitts, was designed by the French and is an informal system of streets. The major roads ran parallel to the shoreline, and a main cross street lead into town from the wharf. The legacy of French and English dispute is reflected today in the island architecture. On many old buildings the ground floor was constructed of stone in the French style, and the second floor built in English frame construction.[15]

St. Pierre, Martinique, founded in the seventeenth century, also had a "commercial rather than formal character."[16] Again, major streets paralleled the shore. Narrower streets developed behind them.

From its founding in 1705, there was an initial attempt at planning in St. George's (present day Fort Royal), Grenada. Several streets were laid around a market square, but the town grew quickly and further development was agglomerative.

Fort Royal, Martinique is somewhat an exception to the usual haphazard French example. The difference was the result of the efforts of Martinique's governor. In 1681, when Fort Royal became the capital of the island,

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[15] P. Gosner, *Caribbean Georgian: the Great and Small Houses of the West Indies* (Washington, D.C. 1982), 52.
[16] Ibid, 165.

the governor designed the town plan himself and encouraged construction.

Danish

Danish Caribbean settlements were established by the Danish West India Company, and were controlled by the Danish government and the Company in a situation analogous to that of the Dutch colonies.

The Danish arrived at St. Thomas in 1671, and established a permanent colony there in 1672. The capital, Charlotte Amalie, began with erection of a fort. The fort was described in 1707 by visiting Pere Labat as "forming only a small square with diminuitive bastions, without any ditch or exterior works."[17] A true town did not begin developing until 1681 when the island governor allowed for the construction of four houses west of the fort, each licensed to operate as a tavern.[18] From this point, subsequent development was rapid and agglomerative.

Plots of land along the waterfront were given to merchants for the construction of warehouses and wharves. This wharf area spread westward conforming to

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[17] J.P. Knox, *A Historical Account of St. Thomas, West Indies* (New York 1970 [originially 1852]), 62-63.
[18] P. Gosner, *Caribbean Georgian*, 221.

the curve of the shoreline. The street that ran through the wharf area was the town's main street, although as late as the nineteenth century its length was only about 100 yards.[19] In 1707, Labat wrote that "At fifty or sixty paces from the fort there is a town which takes the form of the bay, and constitutes the port. This town consists of only one very long street, which terminates at the factory or offices of the Company."[20] Over time, a system of very narrow streets developed in a grid pattern.

Charlotte Amalie had a commercial focus, and few public buildings were constructed there. The Company building, or customshouse, stood at the end of the main street running through the wharf.[21] Architecturally, it was typical of eighteenth century Danish public buildings.[22] With an arcaded ground floor and pattern book proportions, the Company building was described by Labat as "a large and handsome ediface, containing many apartments and commodious magazines for merchandise...."[23]

During his visit in 1701, Labat also wrote that houses in Charlotte Amalie were formerly built of forked poles driven into the ground with a cane-thrash roof, but there had been many fires and most of the houses are

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[19] J.P. Knox, *A Historical Account of St. Thomas, West Indies*, 165.
[20] Ibid, 63.
[21] P. Gosner, *Caribbean Georgian*, 222.
[22] Ibid.
[23] J.P. Knox, *A Historical Acount of St. Thomas, West Indies*, 63.

now built of brick. These houses, as a rule, have only one floor, but they are very clean and are roofed with tiles and whitewashed in the Dutch fashion."[24] St. Thomas was originally occupied by the Dutch in the early seventeenth century. There were still many Dutch settlers in the island in the eighteenth century, so the Dutch architectural influence is not suprising.

The organic development of Charlotte Amalie is unusual for Danish colonies in the Caribbean. Danish officials parsed land in the colonies according to a formal plan of rigid, regular plots laid blanket-like over the landscape.[25] The formal grid plan was extended to the layout of towns.

Christiansted, St. Croix was founded in 1734, and was the capital of the Danish West Indies from 1755-1871. It grew according to a formal plan, and has one of the most academically correct plans in the West Indies. Christiansted's plan consisted of a rigid grid of wide avenues crossed by narrower streets. The street network formed rectangular blocks of unequal size, and two town squares. The squares were separated by two blocks and situated not quite directly opposite each other. One square served as a market area.

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[24] P. Gosner, *Caribbean Georgian*, 221. Gosner suggests that there were few brick and masonry houses despite Labat's description.

[25] D. Hopkins, "An Early Map and Cadastral Survey of St. Croix, Danish West Indies, 1734-1741/ A Cartographic Cul-de-Sac" in *Cartographica*, vol. 29, nos. 3&4, 1-9.

The plan was designed to highlight the fort and Company buildings at the harbourfront. The fort, Fort Christiansvern, was square in shape with corner bastions. A triangular ravelin with a guard house at its tip was constructed at the fort entrance. In addition to Fort Christiansvern and the ubiquitous waterfront customs house, Christiansted had many other public buildings. Many of the public buildings were designed in the Georgian or Neoclassic style (the most popular style in eighteenth century Denmark), or in a style that was a mixture of both. However, the government house, built in 1747, followed the French Baroque style, and the Lutheran church (the state church) possessed a steeple similar to that of English architect Christopher Wren's church spires in London.[26]

Building codes instated in 1747 regulated architectural style and choice of building materials, the size of lots, and zoning.[27] Even though Christiansted grew quickly[28] after becoming a government center, commercial areas and social groups remained neatly segregated. The Konensgade was the main street and supported government and commercial buildings. The Strandgade was set aside for warehouses and businesses. The hill in the eastern portion of the town was the most

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[26] P. Gosner, *Caribbean Georgian*, 243.
[27] Ibid, 237.
[28] The population was 5000 in 1796. Ibid, 238.

prestigious area to live, while free blacks lived on the opposite side of town.[29]

The desire for Christiansted's formal plan to adhere to the Danish government's idea of what a seat of government should look like dominated even the practical necessities of the port town. The orientation of the grid allows for only a small wharf area, with only a limited part of the town meeting the shoreline.

Other eighteenth century Danish Caribbean towns were also initially projected in a formal plan. On St. John, streets were designed for an impressive town at Coral Bay, but the plans were never executed. The plan of Frederiksted, St. Croix was only partially completed. Frederiksted's plan has two rigid grids with blocks of equal size, and squares directly opposite each other. In reality, only the southern grid was actually laid, and was built according to the same strict building codes that Christiansted was designed under.

Frederiksted's fort was square in shape with two bastions at each corner of its north wall. A triangular ravelin protected the fort entrance.

English

The colony of Dominica was claimed by England, France, and Spain until 1759 when England took full possession of it. In 1778, the island fell under the

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[29] Ibid, 238.

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control of the French, but was restored to English control five years later. Despite English domination, the French population was greater than that of the English.[30]

The island's capital, Roseau, was in the late eighteenth century a low volume port. An Englishman who visited Roseau in 1791 wrote of the town plan that, "The streets of this town are also very irregular, not one of them being in a straight line, but the whole of them form very acute angles which face nearly the entrance of each other, and appear very incommodious and unsightly."[31] Even so, he remarked that most of the streets were nicely paved and about forty to fifty feet wide.[32] The street system also incorporated a large, paved market square in the center of town on the bay.

Roseau had many public buildings despite its small size, including a government house, court house, secretary's register, provost marshall's offices, church, market house, and jail. The government house was actually located acroos from the fort in Charlotteville, a town situated adjacent to Roseau and generally considered to be part it. The Englishman who visited Dominica in 1791 wrote that the government house was:

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[30] T. Atwood, *The History of the Island of Dominica* (London 1971 [originally 1791]), 216.
[31] Ibid, 172-173.
[32] Ibid, 173.

"a large building of wood, built after the French manner in the West Indies, two stories high, with galleries all around, and joiced. It stands in the middle of a large lot of ground, surrounded with a low stone wall, has a very fine garden at the back of it, and in front a long gravelly walk, very prettily ornamented on each side with cocoa-nut and other trees."[33]

The court house was located adjacent to the government house. Built of wood, it had two storeys, a pillared portico at the front, and an open gallery at the back. The windows were joiced.

The secretary's register and provost marshall's offices sat in the court house yard. They were built of stone and had tiled roofs, but this did not automatically make them more elegant or higher status buildings than their wooden counterparts for they were poorly constructed. They were "very badly contrived, and no way adapted to the purposes for which they were intended; the tiles being frequently blown off in the hurricane seasons, render them damp, and an improper place for keeping public records."[34]

There was one Protestant church on the island, "a large lofty building...built on a large lot of ground."[35] It was, however, in poor repair by the late eighteenth century. Similarly, though the main French Roman Catholic church was also built on a spatious lot, it shared that lot with colonists' houses.[36]

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[33] Ibid, 174.
[34] Ibid, 175.
[35] Ibid, 175-176.
[36] Ibid, 217.

A market house was constructed after the English retook Dominica from the French in 1783. It was built of wood on pillars of stone, and served diverse purposes. Butchers and fisherman had vending space there, fishing canoes were stored inside, the public stocks were located there, and the town wardens had offices there.

The jail was also built under English rule, the money provided from abroad by wealthy individuals living in England. It of all buildings was well constructed "of fine stone, erected in a very healthy situation, on a large lot of land...is commodious, and well adapted to the design."[37]

Despite the jumbled streets, the town officials of Roseau did in some cases make an attempt at town planning. The lot of land that adjoined the Protestant church yard "was laid out in the plan of the town...and reserved for the purpose of building thereon a public school."[38] For unknown reasons the land was not used as planned, but mysteriously "appropriated to a quite different use" not disclosed in the description.[39]

The English seemed to have had bigger plans for Dominica than the French. At the point before the French took the island in 1778, Roseau contained about a thousand houses. After the French capture and English

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[37] Ibid, 184.
[38] Ibid, 176.
[39] Ibid.

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recapture, there were only about 500 houses.[40]   The houses that had been destoyed by the French were left in ruin about the town.

Bridgetown, Barbados (figure 55) was one of the most important towns in the West Indies during the seventeenth and eighteenth centuries.   It was in a sense "the London of the English West Indies."[41]   Broad street (labeled "q, e, t, u" on figure 55) was the public square and market and ran through the center of town. The Broad Street market area was called Cheapside, just like London's large market area.   Bridgetown and London were also similar in morphology, their commerical zoning, and in their street names.[42]

Bridgetown's initial development in the first half of the seventeenth century was rapid and haphazard. However, between 1657 and 1658, the cartographer John Swan surveyed the town and altered the lay of the streets to make them into a fairly neat grid.   Swan also planned new streets and gave many of the existing and new streets names.   The town received similar facelifts as it was periodically rebuilt after fires.   Labat praised Bridgetown in 1700 writing, "This town is fine and noble, its streets are straight, long, clean, and well-intersected."[43]

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[40] Ibid, 172-173.
[41] M. J. Bowden, "The Mercantile Town of Bridgetown, Barbados 1630-1880: From Mini-entrepot to Shipping Port?" (EHGA 1994), 7.
[42] Ibid, 9-11. For a detailed description of the morphological similarities between Bridgetown and London see ibid, 7-13.
[43] Ibid, 18.

The blocks created by the street grid were mostly narrow and rectangular, but uneven in shape. There was no true market square, but simply the wide axis of Broad Street. The primary church was located away from the activity of the commerical area, and on the opposite end of town from the the fort. Despite Bridgetown's importance and size, in the seventeenth century it had neither a court house nor a town hall. Barbadian officials instead conducted meetings and held court sessions in the local taverns.[44]

Around 1665, an Englishmen named Samuel Copen made a drawing of Bridgetown's harbourfront. Copen's prospect "shows the town looking almost indistinguishable from England or Holland."[45] Three to five storey, narrow, gabled[46] row houses with - oddly enough - fireplace chimneys, are crowded close to the harbour on diminuitive lots. On the waterfront were "eleven great storehouses of stone and brick...and

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[44] R. S. Dunn, *Sugar and Slaves: the Rise of the Planter Class in the English West Indies, 1624-1713* (Chapel Hill 1972), 292.
[45] Ibid.
[46] Though Copen drew the view of the Bridgetown harbourfront, it was engraved by a Dutchman, Johannes Kip. It is possible that in Copen's original rendering, which has not survived, the gables were not present and that Kip added them to suit his own taste. (M. J. Bowden, "The Mercantile Town of Bridgetown, Barbados", 16 & 19.) Labat wrote about Bridgetown in 1700 that "The houses are built in the English style", and Dunn sees the houses in Copen's prospect as similar to London town houses built after 1666. (R.S. Dunn, *Sugar and Slaves*, 292.) There was a significant Dutch presence in Bridgetown during its initial development, but "'three times Bridgetown was almost destroyed 1668-1675', and that means that a total rebuilding must have taken place without a Dutch presence, as they had left the English Caribbean in the early 1660s." (M.J. Bowden, "The Mercantile Town of Bridgtown, Barbados", 16 & 19.)

twenty-one equally large structures...all roofed with the familiar red tiles", in addition to "two or three half-timbered structures with...overhangs on the gable end and some small nondescript timber buildings (which) are obviously English."[47]

Kingston, Jamaica is extreme in the rigidity and formality of its plan. The plan was a response to the dissatisfaction of English colonists living in erratically laid Port Royal Jamaica which they said was "hot and uncomfortable."[48] When Port Royal was demolished by earthquake, Kingston was planned as the island's new principal port.

Kingston was planned as a chessboard of thirteen streets and eleven wider cross-streets radiating from a public square at its center. The reality was a partial completion of the grid that left the square at the edge of town, where it was used by the military rather than as a market. Typically, and despite the formal plan, the town developed first as a street along the shoreline [49]

If Kingston's plan at first seems to resemble the Spanish chessboard plans[50], it nature was rather

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[47] M. J. Bowden, "The Mercantile Town of Bridgetown, Barbados", 19.
[48] R. S. Dunn, *Sugar and Slaves*, 297.
[49] A 1765 plan of the port town at New Providence, Bahamas (figure 76) shows this pattern of development. Similarly, Nassau, Bahamas, founded in 1695, had a grid plan with its main street along the shoreline, as did St. John's, Antigua. St. John's also shared Kingston's style of street grid which was formed by a system of wide streets crossed by narrower ones.
[50] Though Dunn writes that the English expressed scorn for the

different. Though the original idea incorporated a central square, the real focus of the town was the street running alongside the shoreline which was "always used as a Publick street wherein the inhabitants might ship off and land their goods at all time to come...."[51] The streets did not highlight particular buildings or monuments.

Four houses on a 1740 map of Kingston are radically different in appearance than the houses in Copen's prospect of Bridgetown, and the four storey brick houses with glazed, sash windows built in seventeenth century Port Royal.[52] The architecture of the four Kingston houses was much lower to the ground and greater in width than the Bridgetown and Port Royal buildings, and incorporated large verandahs, arcades, and tall windows.[53] In the later eighteenth century, the style of building exhibited by these four houses appears to have only partially caught on. A 1774 description states that Kingston's houses were two or three storeys, built of brick, roofed with wooden shingles, had piazzas at their lower levels, and covered galleries above.[54] It

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Spanish styles of planning (R. S. Dunn, *Sugar and Slaves*, 297), Kingston's plan may have been inspired by Villa de la Vega (Spanish Town), Jamaica. Founded in the sixteenth century, Villa de la Vega had a chessboard pattern with a central square. Kingston's plan may have also been inspired by William Penn's well-publicized plan for Philadelphia which was designed the year before Kingston was founded. (Ibid.)

[51] P. Gosner, *Caribbean Georgian*, 50.
[52] R. S. Dunn, *Sugar and Slaves*, 291.
[53] P. Gosner, *Caribbean Georgian*, 299.
[54] Ibid, 120.

was also said in the eighteenth century that in the upper portion of the town the houses were "extremely magnificent."[55]

Though it lasted 150 years, Spanish presence in Jamaica's early years did not leave a lasting impression. English architecure on Jamaica is solidly rooted in the traditional English style. In contrast to the buildings of Kingston and Port Royal, Spanish Town architecture consisted of "bungalows constructed of wood and plaster, with tile floors, shuttered windows, tile or thatched roofs, and great double doors opening from the street onto interior courtyards."[56]

Architecture in the English West Indian colonies in general was solidly rooted in the English tradition and slow to adapt to the Caribbean climate, despite the fact that the result must have been uncomfortable. When architect Richard Ligon visited Barbados and Jamaica near the end of the seventeenth century, he was suprised that the colonists had not incorporated cellars into their buildings which would have been cool refuges. Barbados houses, he wrote, were "so low, as for the most part of them, I could hardly stand upright with my hat on."[57] The lowness of the buildings coupled with a dearth of windows made it so that "in the afternoons, when the Sun came in the West, those little low roofed

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[55] Ibid.
[56] R.S. Dunn, *Sugar and Slaves*, 288.
[57] Ibid.

rooms were like Stoves or heated Ovens."[58] In the early eighteenth century on the English colony of St. Christopher, even though some changes were being made to adapt architecturally to the local conditions, traditional cruck frames and thatch roofs were still prevalent. Stone and brick buildings with tile roofs became the favored manner of building in the eighteenth century throughout the British West Indies.

St. Eustatius' town form corresponds little with the morphologies of of Spanish colonial towns. Obviously, the Spanish chessboard grid little resembles the loose grid with narrow, rectangular blocks found on St. Eustatius. St. Eustatius' town streets did not highlight particular public buildings or monuments as the formal Spanish plans did. The centrally located plaza/square was the only feature shared by both the Upper and Lower Towns, and this similarity was only superficial. The Spanish plaza was the result of the town streets focusing on a distinct square, a nexus of town life where ecclesiastic and official buildings were located. Statia's square seems to have been in reality more a market area than a true planned square. The Dutch Reformed church was positioned away from this locus of activity. Buildings known to be government

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[58] Ibid.

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offices, though close by, were separated by being enclosed in the walls of Fort Oranje.

Although Spanish towns which grew without the strictures of the *Ordenanzas* may have, in their agglomerative jumble, appeared on the surface similar to St. Eustatius, they were by their nature different. Spanish towns founded during Oranjestad's existence would have usually been mining- or agriculturally-based towns settled inland, and would have lacked the wharf jumble of an extroverted, cosmopolitam shipping port like St. Eustatius. Also, despite the Calvinist stereotype, the church was not a central point in the Statian's colonization process in the same way the Catholic church was in Spanish colonies. The Spanish had multiple state buildings with ecclesiastic purposes, whereas the Statians had only one structure representing the state religion. St. Eustatius has fewer public buildings overall than the average Spanish colony.

There was no known counterpart on St. Eustatius to the Spanish houses with interior courtyards such as those found at Spanish Town, Jamaica.

French Caribbean settlements differ from the settlement on St. Eustatius in that they were often enclosed within fort walls. One exception, Ste. Domingue, was originally a Spanish town and was laid out in an expansive formal grid. Neat grids were uncommon in Franch-founded colonies in the seventeenth and

eighteenth centuries. The morphologies of French towns ordinarily were more akin to the agglomerative layout of Oranjestad.

Though there was great wealth in some eighteenth century French colonies, such as Ste. Domingue, the wealth seems to have been more evident on planters' estates than in the town nuclei. As on St. Eustatius, in the French colonies there were few public buildings, and those which were present were not grandly executed.

The reclaiming of land below sea level at Castries is interesting since the same feat was allegedly accomplished at St. Eustatius. The Castries example shows that, though perhaps no nation gained land from the sea to the degree the Dutch nation did, if land was reclaimed on Statia it is not an activity exclusive to the Dutch Caribbean.

Danish Caribbean colonial towns were much more strictly regulated in their execution than Oranjestad, and would parallel more closely with with Dutch Batavia. Both the Danish towns and Oranjestad had gridded street systems with narrow, rectangular blocks, but the Danish plans were extremely rigid while Oranjestad's was loose. The Danish plans incorporated networks of wide avenues with narrower cross-streets and two town squares, while in contrast Oranjestad had only one "square" and an informal street system.

The streets on St. Eustatius are not designed to highlight public architecture in the way that Danish streets were. Even in relatively informal Charlotte Amalie, the main street terminated at the elegant and academically proportioned Company house, a layout with formal roots.

In formally planned towns such as Christiansted and Fredricksted, zoning and building codes were rigidly enforced, while in Oranjestad there seems to have been little building regulation. The result was that public architecture was far more abundant and graciously executed than in Oranjestad. In addition, social segregation appears to have been institutionalized in the Danish town plans, whereas the different classes of St. Eustatius' population were spread throughout the town.

In Charlotte Amalie, the correspondence in architectural style with that of the Dutch was no doubt due to the strong Dutch presence there.

In regard to English colonial towns in the Caribbean, there are few generalizations that can be made about morphology. The morphologies of English towns varied from the jumbled arrangement of Roseau, to the loose grid of Bridgetown, to the perfect rigidity of Kingston. In the instance of Roseau and Kingston, however, there were strong, exterior cultural influences that may have shaped the towns' forms. Roseau resembles

the average French Caribbean town, and the grid at Kingston - at least in its shell - is in the style of the idealized colonial Spanish plan. Bridgetown is the one town in these examples that replicates English urban forms, and it is also the most similar of the examples given here to the town form of Oranjestad.

Bridgetown's grid, largely organic in pattern with mostly narrow, rectangular blocks, presents the same type of form as Oranjestad's grid. Bridgetown's wharf area is different in that it has many sequential streets oriented perpendicularly to the shoreline, rather than one street parallel to the shore as on St. Eustatius. As in all port towns, the wharf area was the focus of town life in both Bridgetown and Oranjestad, although Bridgetown's large size difused commercial activity over a wider area. Bridgetown and Oranjestad also had market areas rather than formal market squares.

The state church was removed from the commerical district in both Bridgetown and Oranjestad. In contrast, however, the Dutch Reformed church was situated close to Fort Oranje creating a locus of public buildings while the Anglican church in Bridgetown sat across town from James Fort. Bridgetown, like Oranjestad, had little public architecture despite its size and the examples of elegant state architecture in other colonies such as Jamaica.

The height and appearance of the houses in Bridgetown, despite the possibility of a Dutch influence, is noticably different from the lowness of Statian architecture. Statian buildings, though close together in the Lower Town and frequently on small lots as the Bridgetown buildings were, were not arranged in neat rows. In addition, the chimneys seen on Bridgetown houses are unusual for Oranjestad houses where ovens were mostly located in detached kitchens or as freestanding structures in the house yard.

Conclusion

The artificial geography which ties together Dutch colonies in the Caribbean and on parts of the South American continent is really only part of a global Dutch culture created by the colonial enterprise. The vital ports in seventeenth and eighteenth century Holland were able to export large amounts of building materials to their colonies[1], ready receptacles as the colonies were also focused on shipping. In some colonial towns such as Jakarta, Batavia, and Mauritsstad, those materials were crafted into traditional Dutch townscapes by professional Dutch planners also "exported" from Holland. In colonies such as St. Eustatius where professional planners were not present, the colonists themselves created a landscape based on their idea of what a town required in regard to function and form.

The colonists, planners by default, worked from their ideas of what a town should be based on their experience of Netherlandish towns. The professional planners' designs grew from this type of experience and also the guide of academic training. In either case,

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[1] M. Hall, ""High and Low in the Townscapes of Dutch South America and South Africa: the Dialectics of Material Culture" in *Social Dynamics* 17, 2 (1991), 43.

planning involved a weighing of ideas and response to the environment a colony presented. Also in the equation was the tension between the metropolis' view of what a colony should be, and the desires and needs of the colonists. The metropolitan players and the colonial players each had their own short term and long term goals, and these were not unfrequently at odds.

On St. Eustatius, when the economy turned from agricultural production to commerical shipping, the island's port town began to grow. The metropolitan strategy and the colonists' strategy was at one level the same - to make money through the very familiar means of trade. The metropolitan merchants, of course, believed the recipient of the bulk of the profits should be them, while the colonists felt they should be on the receiving end. Both groups, however, were focused on creating private wealth rather than imperial wealth reflected by grand official architecture. It was only the colonists, though, who had to create their port town and profits while resonating with a new environment. It was this resonance that created a collective history for the colonists that was West Indian rather than strictly Netherlandish.

In describing in chapter four the West Indian colonies established by different nations, there are architectural features which stand out as common throughout West Indian colonies despite national

boundaries. The reason for these similarities is often a pragmatic one. For example, because most West Indian colonies were port towns, it was natural for them to develop paralleling the coast to take full advantage of the shoreline. A town's main street would usually be this first street in the wharf area. With the concentration of activity and commercial wealth in such a vulnerable area, a fort was necessary on the waterfront. Centrally locating a market area in town allowed easy access for a town's inhabitants. The harsh climate demanded changes in traditional European building styles which created rooms designed for free airflow; large, louvered windows; cooling porches and cellars; and detached kitchens. In areas where hurricanes were a threat, structures were mostly built low with stone or brick foundations and frame upper stories.

Pragmatism and stylistic traditions meshed well in some instances allowing seamless absorption of aspects European building into the West Indian environment. The deep, narrow, rectangular buildings with symmetrical facades seen in eighteenth century renderings of St. Eustatius were not constructed in that manner simply to resemble the Dutch row house in vogue at the time. The few room partitions common in Dutch domestic architecture made an agreeable design for a hot climate because air could circulate freely. Likewise, placing

windows and doors symmetrically on a building was not only fashionable but allowed for smoother air flow. When the English captured the Cape of Good Hope and took over Dutch structures, they replaced the one formal reception room provided by the Dutch with a series of rooms through which illustrious guests were conducted.[2] However, in the English colony of St. Christopher, West Indies where the weather is warmer than at the Cape, English buildings were constructed long and narrow like Dutch buildings so the breeze could flow easily through.[3]

In other instances Dutch traditions were abandoned. Tall buildings in the Netherlandish style were not practical on St. Eustatius since it was located in an area vulnerable to hurricanes. The ornate gables so common in the Netherlands and in other Dutch colonies were apparently rare on Statia, not applied perhaps because of the expense of repairing or replacing them after storms. The house elevation drawn in the Zimmerman letter differs greatly from the average Dutch house. Its longest rather than narrowest facade was perpendicular to the street, and its louvered windows and central gallery had no Dutch precedent. Some buildings, such as the Government Guest House, have English architectural features, which is not suprising given the substantial English population on the island.

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[2] Ibid, 59.
[3] R. Dunn, *Sugar and Slaves: the Rise of the Planter Class in the English West Indies, 1624-1713* (Chapel Hill 1972), 229.

The eratic orientation of buildings in the Upper and Lower Towns also contrasts with the neat rows of buildings found in Netherlandish towns. Even the Medieval "unplanned" sections of towns in Holland did not approach the jumble found on St. Eustatius.

Though the above very tangible features strayed from the metropolitan model, the Upper and Lower Towns retained a larger Dutch ideal which was more abstract yet fundamental to Dutch towns. The Dutch were not imperial in the manner which believes in manifest destiny. Rather than being focused on the idea and ideals of empire, their reverence was extended to successful trade. This created a state of mind which the colonists carried with them around the world so that, for example, when "the Dutch visited Chinese cities they judged their richness and welfare according to the number of shops."[4] It was private wealth rather than state wealth that was reflected and important on St. Eustatius and in other Dutch colonies. The unplanned streets and dearth of state architecture did not undermine the importance of St. Eustatius as a colony. Statia would have been judged on its trade at which it excelled.

Since Statia had trade as its reason to be and its yardstick for measuring success, and was populated

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[4] J.L. Oosterhoff, "Zeelandia: a Dutch Colonial City on Formosa (1624-1662) in R. Ross and G.J. Telkamp (eds.) *Colonial Cities: Essays on Urbanism in a Colonial Context* (Dordrecht 1985), 59.

largely by ambitious merchants, the fact that its Upper and Lower Towns were unplanned would have actually been in some ways a positive aspect. The rigid grid typical of eighteenth century town planning was demarcated by strict boundaries, public buildings and other monumental architecture, and was often surrounded by agricultural lots that could not be sold. The rigidity of such a grid, as in the case of Christiansted, St. Croix, did not always suit the purpose at hand. The unplanned development of the Upper and Lower Towns on St. Eustatius meant that the potential of the Lower Town wharf could be realized, and that the Upper Town was free to adapt to the desires of private wealth. In this way Statia's town grid is more akin to the capitalist nineteenth century gridded town plans than their eighteenth century counterparts.[5]

Though no doubt also an outcome of topography, the Upper and Lower Towns created a dichotomy of extroversion and introversion common in Dutch Towns. The exterior orientation and bustle of the Lower Town was separated from the quieter, domestically focused Upper Town where the majority of people lived. Within the Upper Town itself was a similar separation with the church located away from the noise of the market, and most state buildings enclosed within Fort Oranje.

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[5] S. Kostof, *The City Assembled: the Elements of Urban Form through History* (Boston 1992), 121.

The retention into the late eighteenth century of these fundamental spatial ideals within the Upper and Lower Towns on St. Eustatius, and their fit within the larger idea of a Dutch standard which judges towns by commerical volume and the abundance of merchandise, shows a stability in the Dutch tradition initially masked by the superficial changes which ocurred during environmental adaptation. Though a survey of Dutch colonies and towns at one level shows them never to be stale in their variety, it reflects in a larger sense a global Dutch culture. As Simon Schama wrote, "if there is one Dutch culture there are many rooms within it....it can swim with variety yet remain coherent unto itself."[6] St. Eustatius as a Dutch colony was a room within the larger structure of Netherlandish culture. It had diverse residents and guests that passed through, it changed in appearance over time, and it had its own particular environment and circumstances to evolve in. Nonetheless, with the Dutch presence significant through the eighteenth century, St. Eustatius maintained a cultural continuity at a deep level that affiliates it with the global culture the hand of colonialism spread around the world.

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[6] S. Schama, *The Embarassment of Riches: an Interpretation of Dutch culture in the Golden Age* (Berkeley 1988), 612.

Illustrations

Figure 1

CARIBBEAN SEA

SCALE OF MILES

0 50 100 200

St. Eustatius

N

UNITED STATES
Miami
Key West
GRAND BAHAMA
Freeport
GREAT ABACO
ELEUTHERA
Nassau
ANDROS
CAT I
LONG
CROOKED
AKLINS
EXUMA
MAYAGUANA
CAICOS IS
TURKS IS
Silver Bank
BAHAMA BANK
Cay Sal Bank
Havana
ISLE OF PINES
CUBA
Camaguey
Santiago de Cuba
GRAND CAYMAN
Montego Bay
JAMAICA
Kingston
Pedro Bank
Rosalind Bank
GREAT INAGUA
Cap-Haitien
HAITI
Port-au-Prince
Jacmel
DOMINICAN REPUBLIC
Santo Domingo
PUERTO RICO
San Juan
Ponce
VIRGIN ISLANDS
VIEQUES
ST. CROIX
ANGUILLA
ST. MARTIN'S
ST. BARTS
SABA
ST.A
ST. KITTS
NEVIS
MONTSERRAT
BARBUDA
St. John's
ANTIGUA
GUADELOUPE
Basse Terre
MARIE-GALANTE
DOMINICA
Roseau
MARTINIQUE
Fort-de-France
Castries
ST. LUCIA
ST. VINCENT
BEQUIA
BARBADOS
Bridgetown
UNION
CANOUAN
CARRIACOU
GRENADA
St. George's
TOBAGO
TRINIDAD
Port of Spain
Cumana
Caracas
LA TORTUGA
ISLA DE MARGARITA
LOS ROQUES
BONAIRE
CURACAO
Willemstad
ARUBA
VENEZUELA
Barranquilla
COLUMBIA
Maracaibo
NICARAGUA
COSTA RICA
Limon

CARIBBEAN SEA

The Caribbean Islands and the Bahamas Archipelago
(adapted from Gosner 1982)

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Figure 2

ST. EUSTATIUS
(STATIA)
NETHERLANDS, ANTILLES

N

BOVEN BAY

COCOLUCH BAY

FONTAAN BAY

JENKINS BAY

VENUS BAY

LITTLE MOUNTAINS

ZEELANDIA BAY

CONCORD BAY

ATLANTIC OCEAN

TUMBLE DOWN
DICK BAY

GREAT BAY

COMPAGNIE BAY

BILLY'S GUT

*CENTRAL
PLAIN*

CORRE CORRE BAY

ROUND
HILL

ORANJESTAD BAY

ORANJESTAD

GALLOWS BAY

*THE
QUILL*

CARIBBEAN SEA

KAY BAY

BACK-OFF BAY   BUCCANEERS BAY

Map of St. Eustatius
(drawing: Adrian Triplett)

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Figure 3

Labels visible on map:

LOOI ROAD

ROSEMARY LAAN

PRINSESWEG

KAPELWEG

FORT ORANJE STRAAT

VAN PEEREWEG

VAN RHEEWEG

FAESCHWEG

LOGEWEG

DE RUYTERWEG

HEILLIGERWEG

BINKERSWEG

TIJGERWEG

VANRIESWEG

BREEDEWEG

WEG NAAR WHITE WALL

DE WINDTWEG

DE GRAAFWEG

WILHELMINAWEG

C

EMMAWEG

B

WILHELMINAPARK

COTTAGEWEG

E

KERKWEG

CLIFFS

D

F

A

FORT ORANJE

LOWER TOWN

VAN TONNINGEENWEG

CLIFFS

ORANJESTAD BAY

WATERFORT

N

HISTORIC STRUCTURES

A — FORT ORANJE
B — SIMON DONCKER HOUSE
C — SYNAGOGUE
D — REFORMED CHURCH
E — GOVERNMENT GUEST HOUSE
F — FORMER JUDSON LIBRARY

Modern Oranjestad, St. Eustatius
(drawing: Adrian Triplett)

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Figure 4

View of the Upper and Lower Towns from a Dutch Map, 1742

Figure 5

CHURCHYARD

N

HEERENWEG

6 PLOTS

6 PLOTS

8 PLOTS

8 PLOTS

AGTERSTRAAT

24 SMALL PLOTS

KRUYSSTRAAT

BREEDSTRAAT

6 HOUSES

PASTOR'S
RESIDENCE

LAYOUT OF ORANJESTAD IN 1743

Copied from a map found among "Letters and papers from St. Eustatius, etc." to
Chamber of Amsterdam 8-7-1727 to 5-7-1743, 2nd W.I.C. A.R.A. no. 621 of section 749

(drawing: Adrian Triplett)

Figure 6
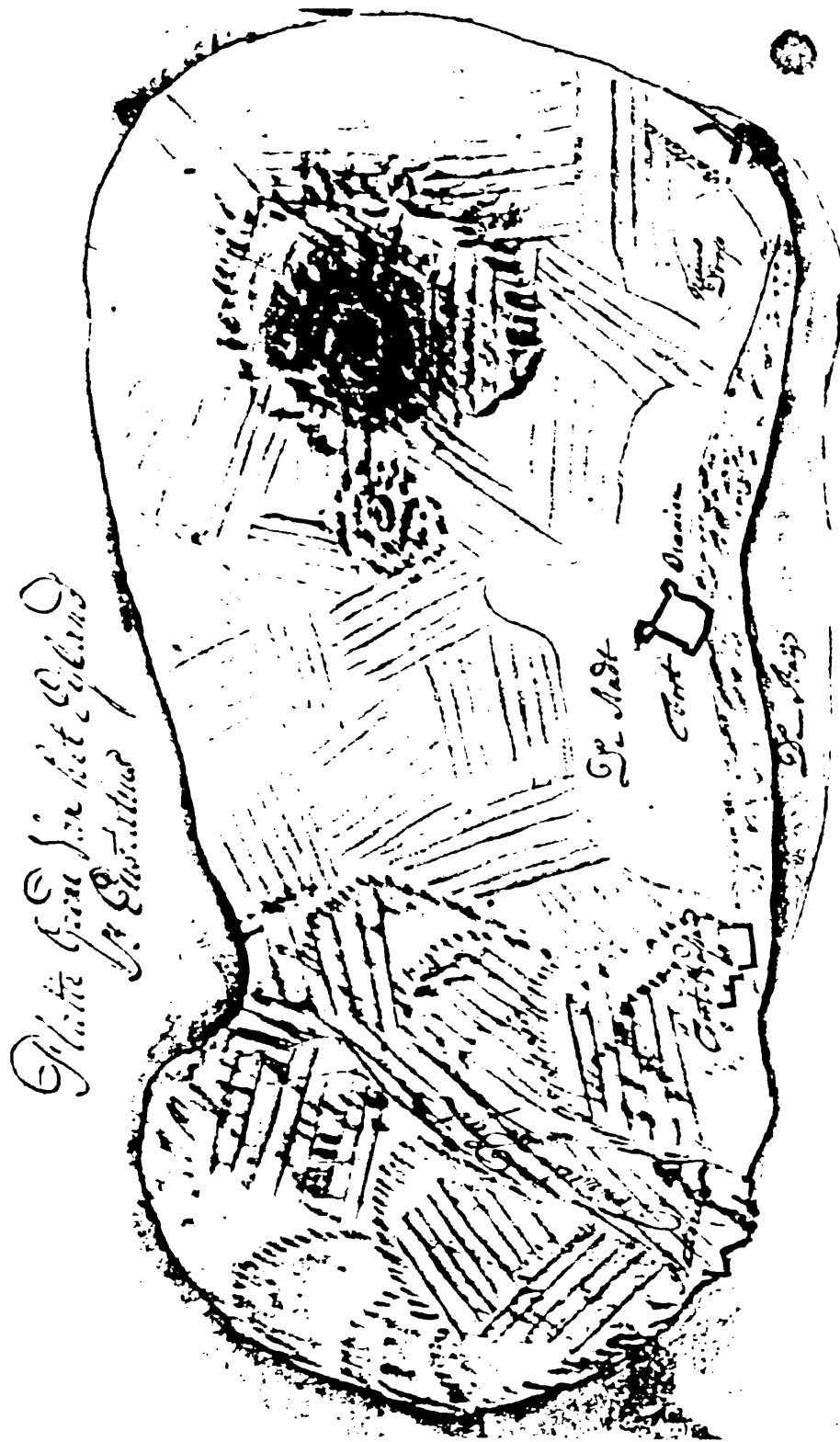
An Eighteenth Century Map of St. Eustatius

Figure 7
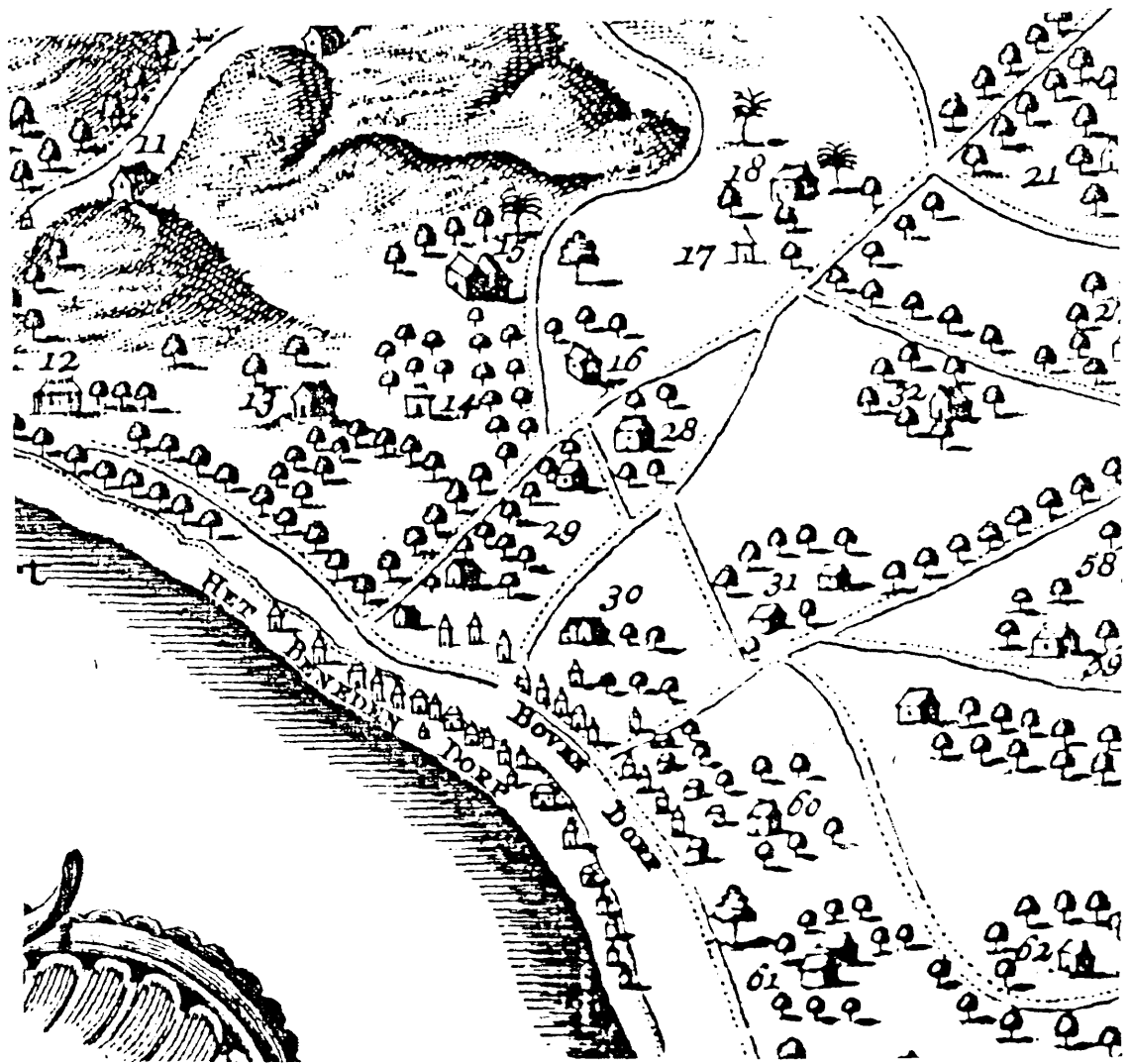
View or the Upper and Lower Towns from
a Dutch Map by Reinier Ottens, 1775

Figure 8
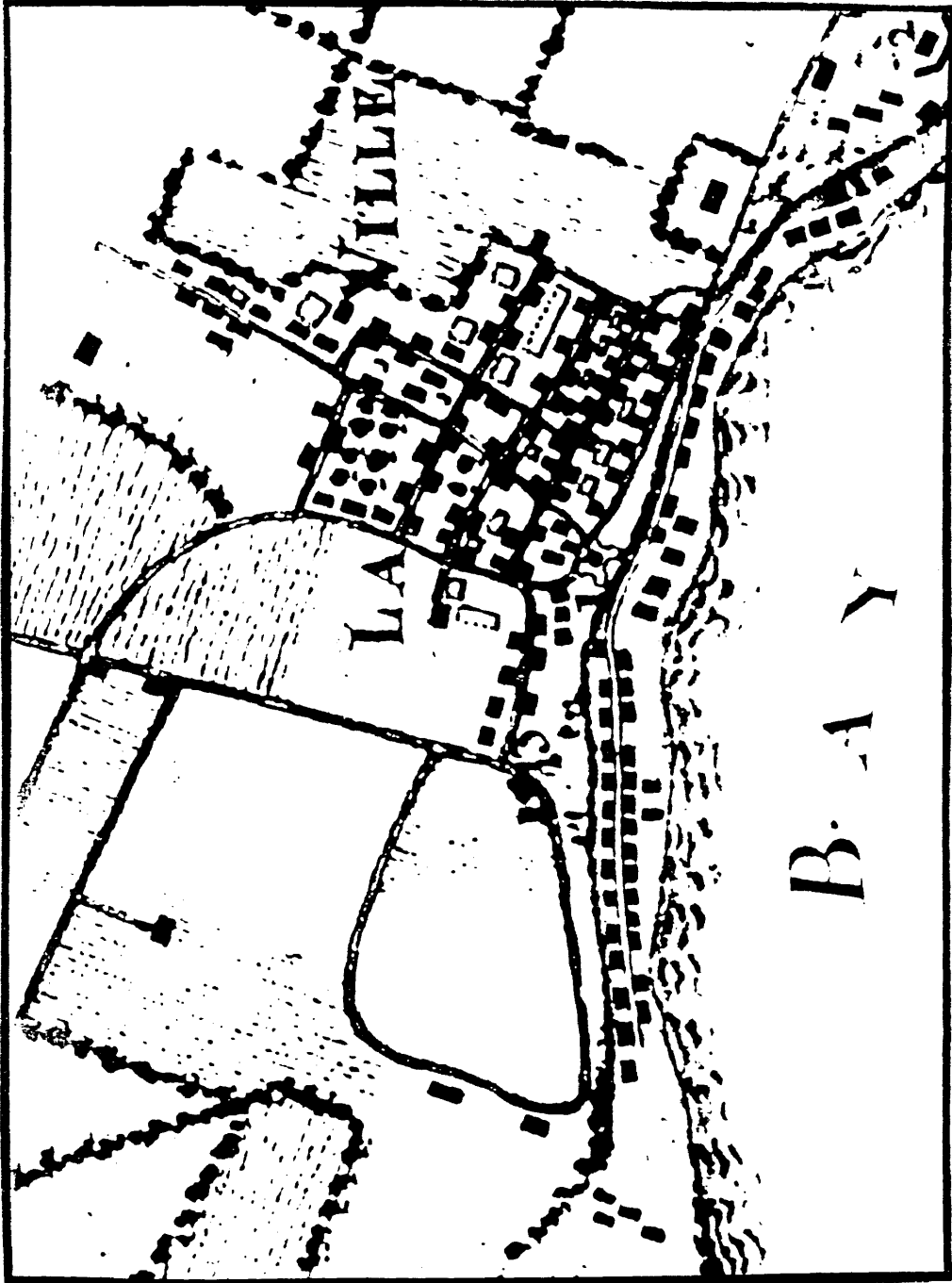
View of the Upper and Lower Towns from part of
a French map made after 1781

Figure 9
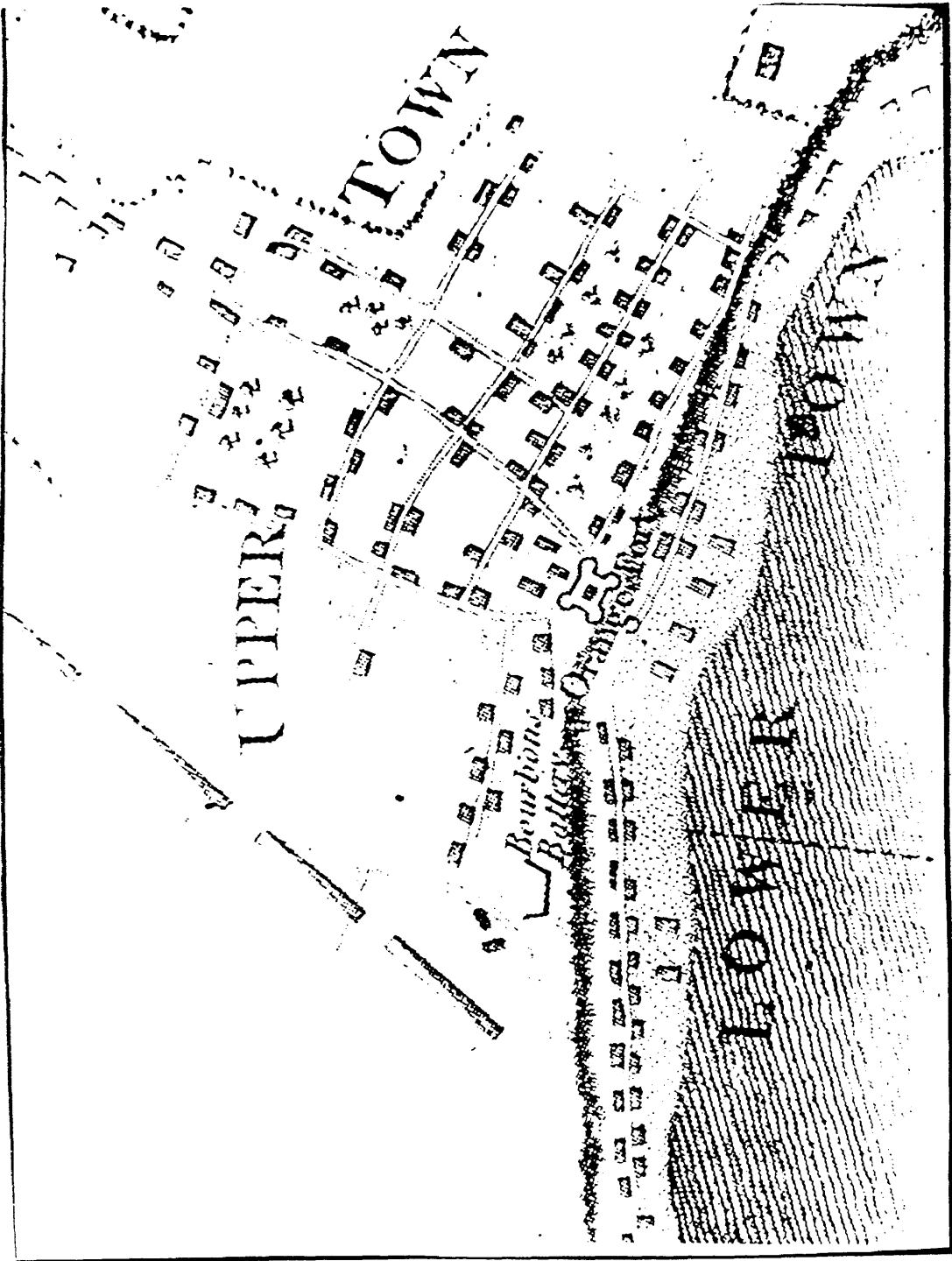
View of the Upper and Lower Towns from part of
an English Map, 1795

Figure 10
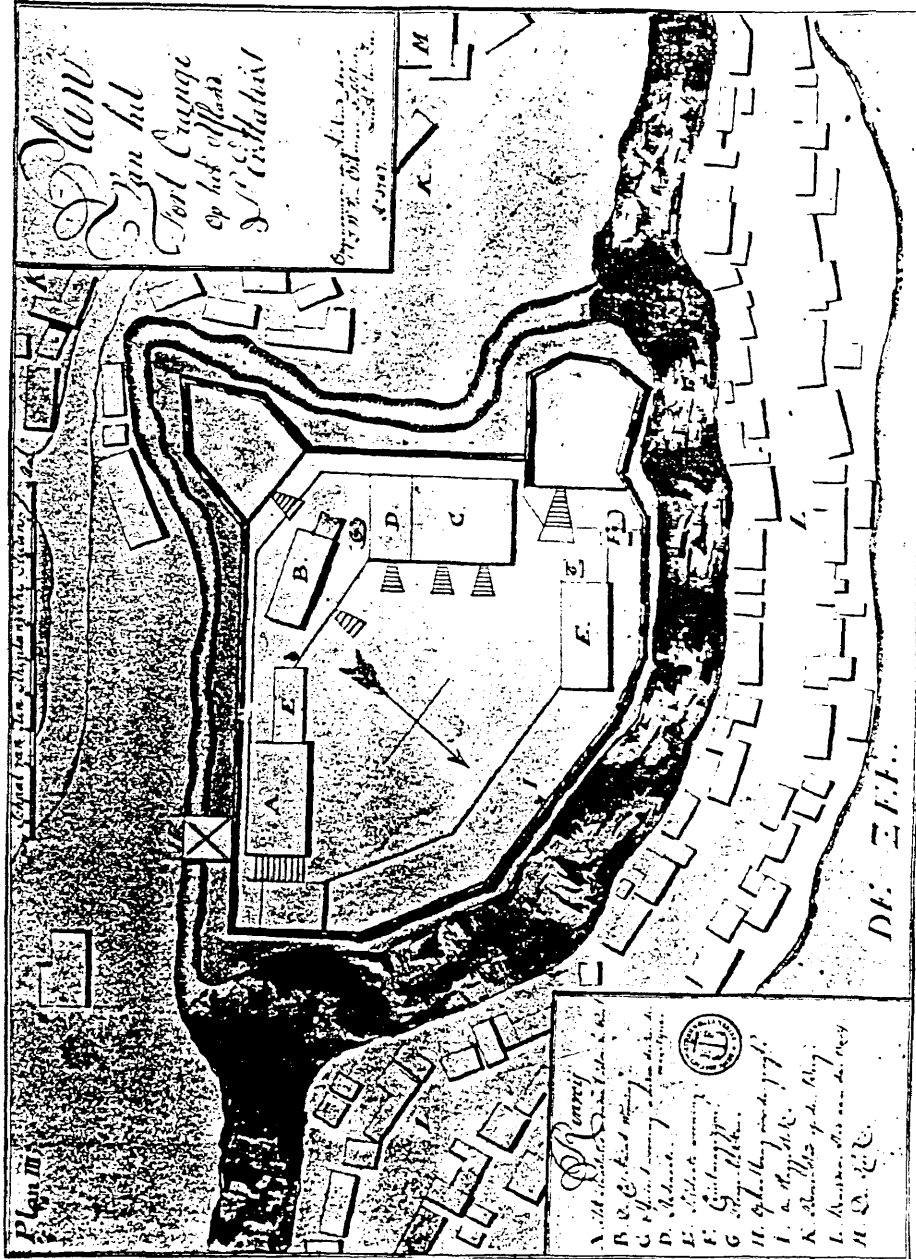
Plan of Fort Oranje in 1787 Showing Buildings
in the Upper and Lower Towns

Figure 11
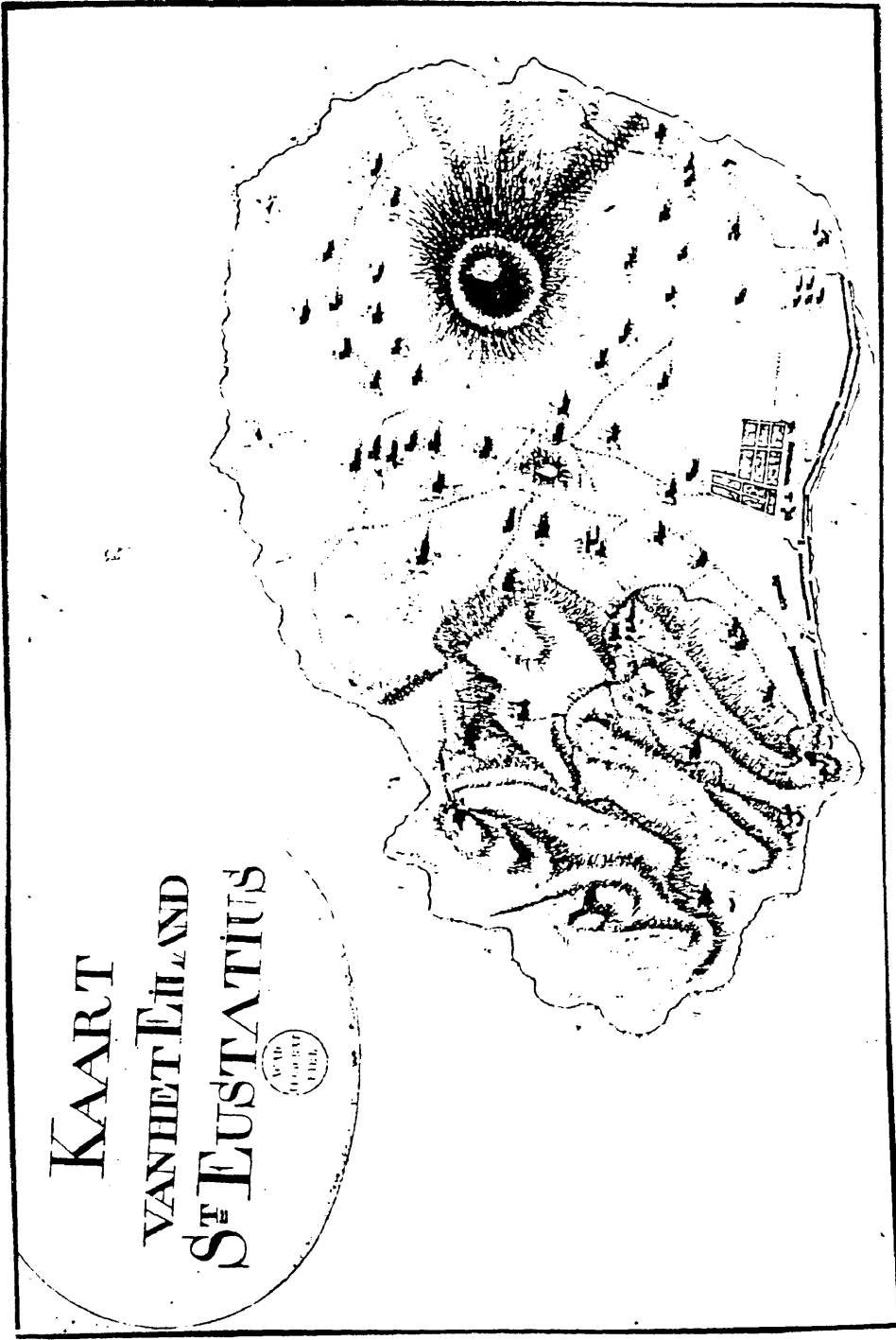
Street Grid of the Upper Town as Shown
in a Dutch Map by W. Blancken, 1820

Figure 12

An Italian Print by Niccolo Mitraini of
St. Eustatius Made Just before 1772

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Figure 13

A Drawing by A. Nelson of the Upper and Lower
Towns Looking North, 1774

Figure 14

A Drawing by A. Nelson of the Upper and Lower Towns Looking South, 1774

Figure 15

Part of a Dutch Engraving by K.F. Bendorp, 1780

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Figure 16

The Upper and Lower Towns, 1790

Figure 17
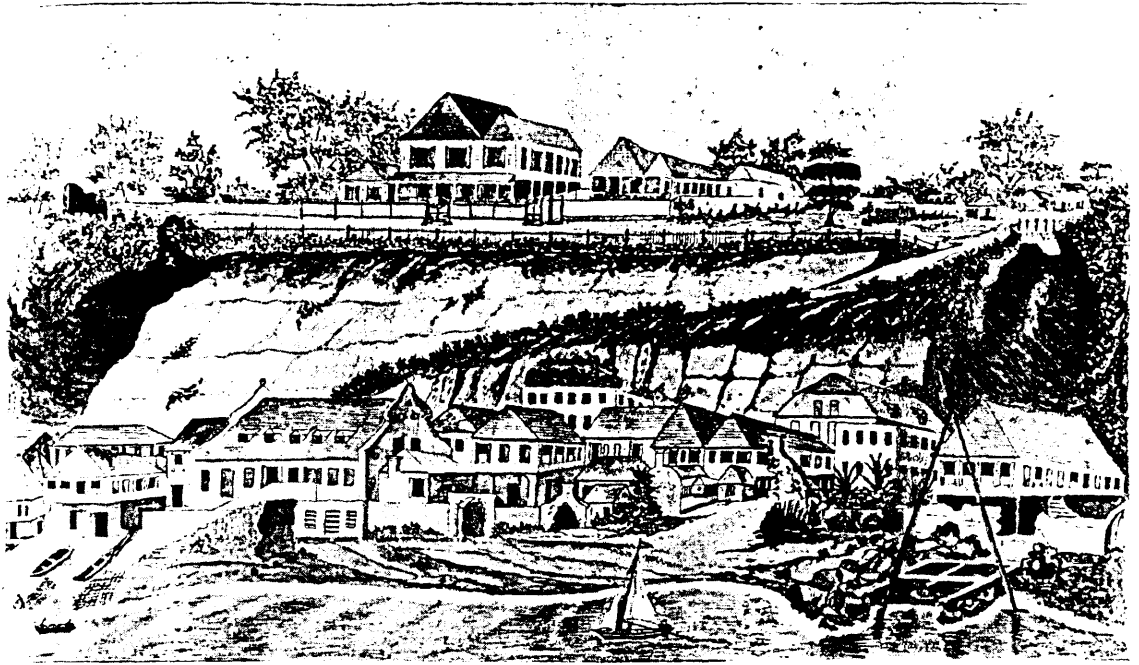
View of Part of the Upper and Lower Towns, 1829

Figure 18

Lithograph by G.W.C. Voorduin Showing Part
of the Upper Town, 1860

Figure 19
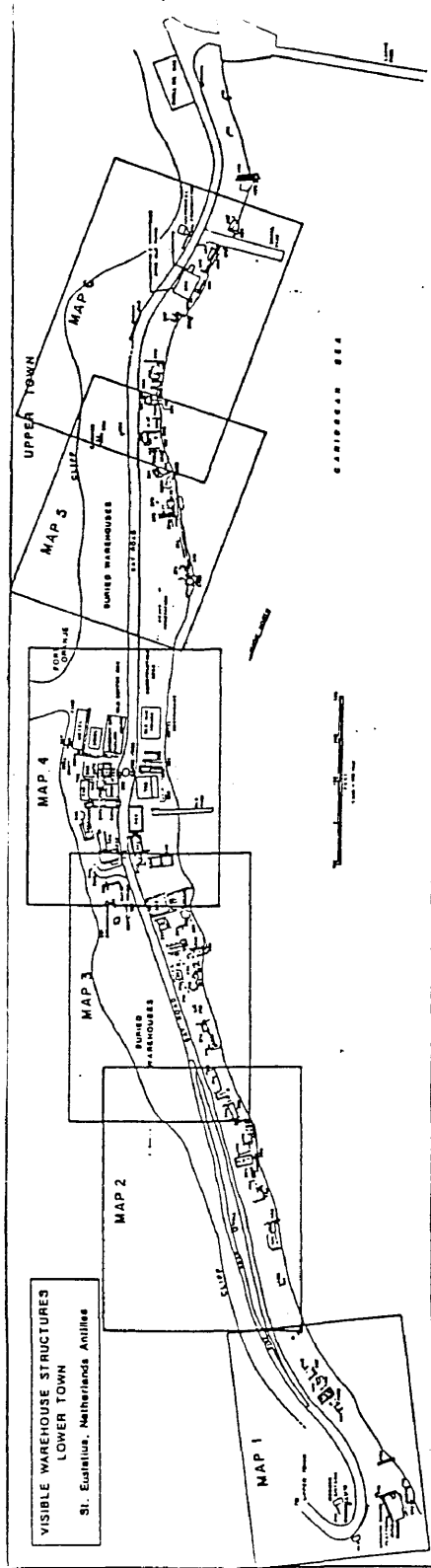
Visible Warehouse Ruins in the Lower Town
(after N. Barka 1985)

Figure 20

MAP 1
VISIBLE WAREHOUSE RUINS
Lower Town
St. Eustatius, N.A.

CLIFF

DIRT ROAD

BAY ROAD

Magn. North

TO UPPER TOWN

MODERN CISTERN
414
415
WINDMILL

419

MODERN DANCE PLAT-FORM OVER RUINS
417
416
418

413

420

429

428
426
427
425

423
421
422

CARIBBEAN SEA

25 0 75
FEET

Visible Warehouse Ruins, Map 1
(after N. Barka 1985)

131

Figure 21

MAP 2
VISIBLE WAREHOUSE RUINS
Lower Town
St. Eustatius, N.A.

Visible Warehouse Ruins, Map 2
(after N. Barka 1985)

132

Figure 22

MAP 3
VISIBLE WAREHOUSE RUINS
Lower Town
St. Eustatius, N. A.

Visible Warehouse Ruins, Map 3
(after N. Barka 1985)

133

Figure 23

MAP 4

VISIBLE WAREHOUSE RUINS
Lower Town
St. Eustatius, N.A.

FORT ORANJE

CLIFF

GUT

HOTEL

POOL

MOOSHAY BAY
PUBLICK HOUSE
(OLD COTTON GIN)

BAY ROAD

Construction
Area

OLD GIN HOUSE
HOTEL -
RESTAURANT

Magn. North

KAPOC TREE

CLIFF

BAY PATH

TO UPPER TOWN

SE 1
EXCAVATION
408

BAY ROAD

OLD PIER

CARIBBEAN SEA

Visible Warehouse Ruins, Map 4
(after N. Barka 1985)

134

Figure 24

MAP 5
VISIBLE WAREHOUSE RUINS
Lower Town
St. Eustatius, N. A.

FEET
25 0   75

CLIFF

383
CANNON

384

BAY ROAD

391
390
389
388
387

386

385A 385B

381 382
380A 380B
379 378
376 377
375
374
373
372
371
370A 370B

Magn. North

CARIBBEAN SEA

HEAVY
VEGETATION

Visible Warehouse Ruins, Map 5
(after N. Barka 1985)

135

Figure 25

MAP 6
VISIBLE WAREHOUSE RUINS
Lower Town
St. Eustatius, N.A.

FEET
25 0   75

383
CANNON

384

CLIFF

MODERN WALL

HISTORICAL
FOUNDATION

BAY ROAD

386

388

389

390

391

392

394 395

396

397

398

399

400

DUNKERK'S
WAREHOUSE
OVER OLD
RUINS

401

CONCRETE

402

403

404

405

406
Small
Pier

407

CARIBBEAN SEA

Magn. North

Visible Warehouse Ruins, Map 6
(after N. Barka 1985)

136

Figure 26

Ruins of an Eighteenth Century Warehouse
in the Lower Town (after P. Kandle 1985)

Figure 27
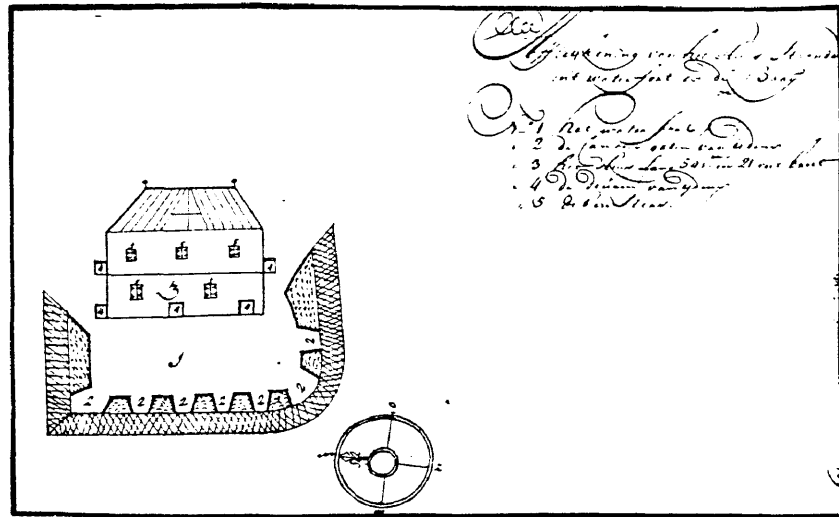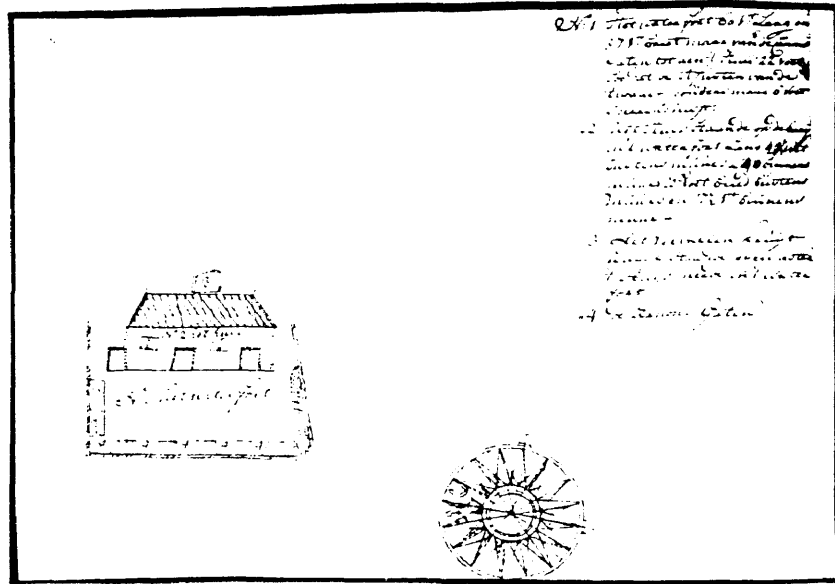
Drawing, Circa 1724, of the Waterfort (top)
and a Second Drawing from 1726 after the
Fort was Rebuilt as a Slaves' Quarters (Bottom)

Figure 28
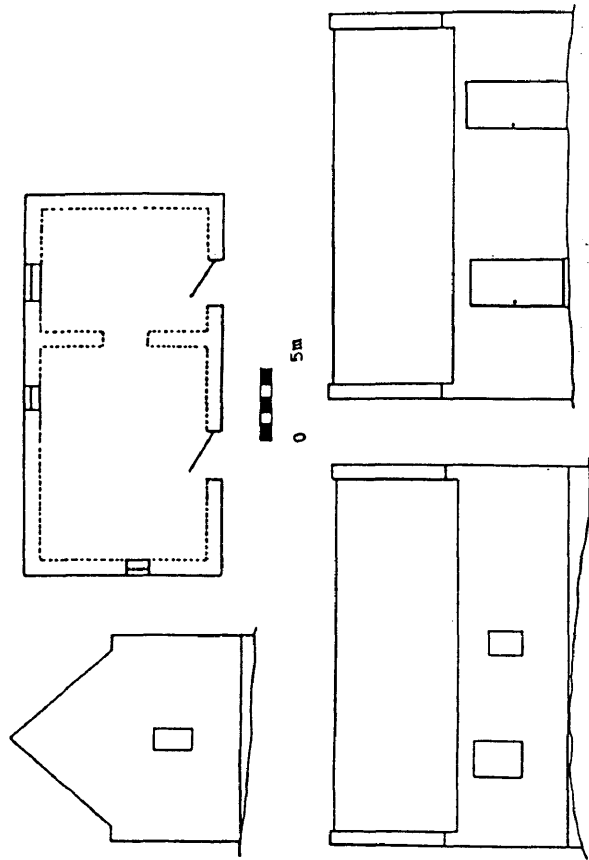
An Example of the "Core Form" at the Cape
(after M. Hall 1991)

Figure 29
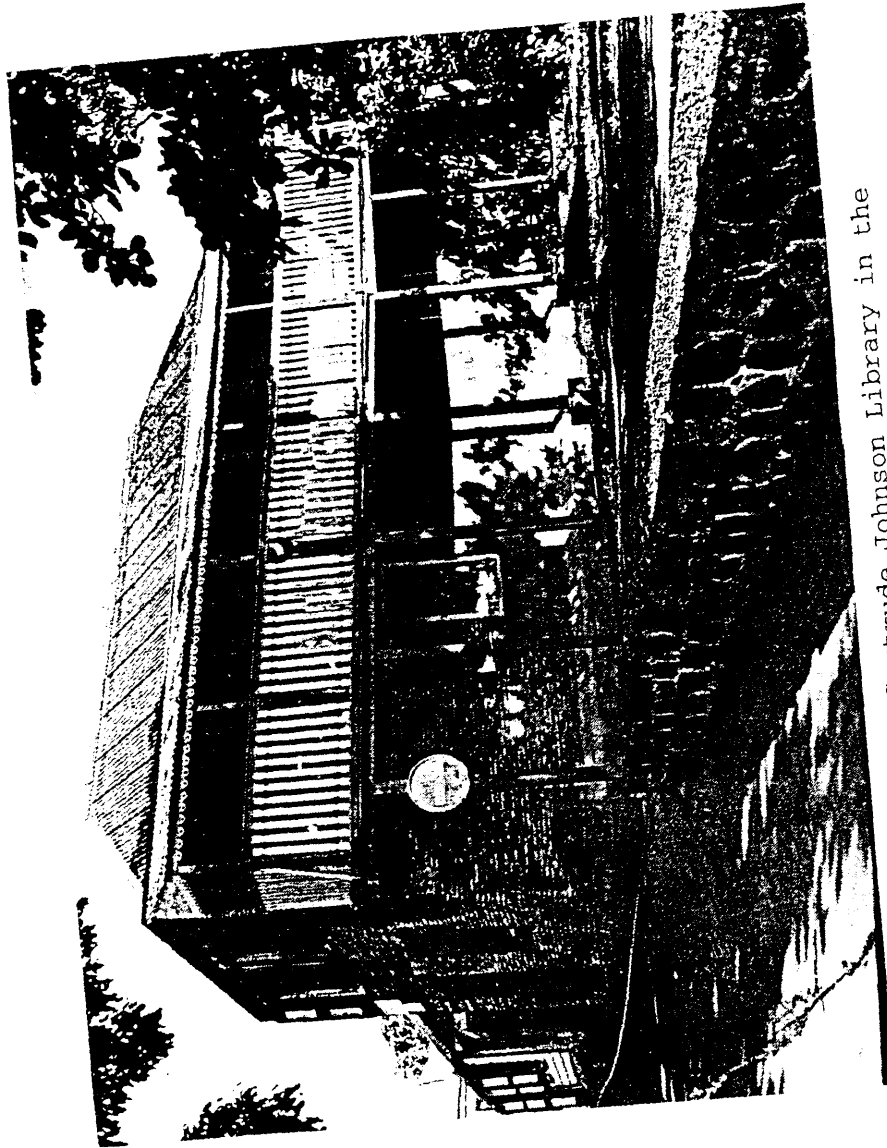
The Former Gertrude Johnson Library in the
Upper Town (after Y. Attema 1976)

140
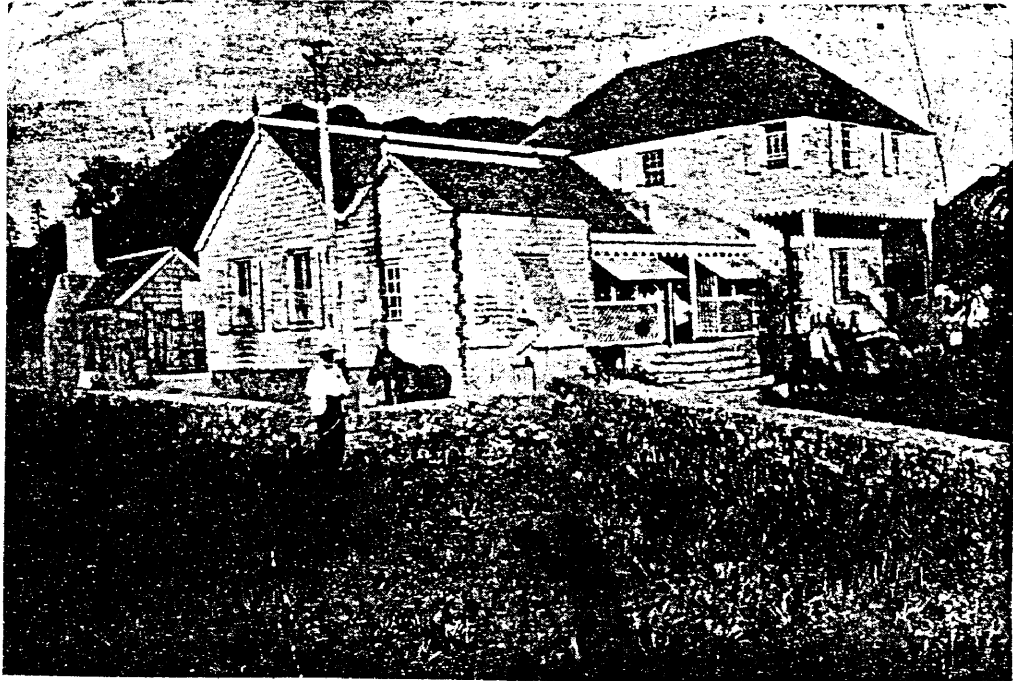
Figure 30

The Doncker House in the Upper Town
(after J. Hartog 1976)

Figure 31

250 feet (76 m)

N

Entrance

Gate

Cemetery

89 feet (27 m)

Pulpit

Main entrance

Gate

30 feet (9 m)

Cemetery

33 feet (10 m)

Direction Fort Oranje

Church road

Direction Whitewall
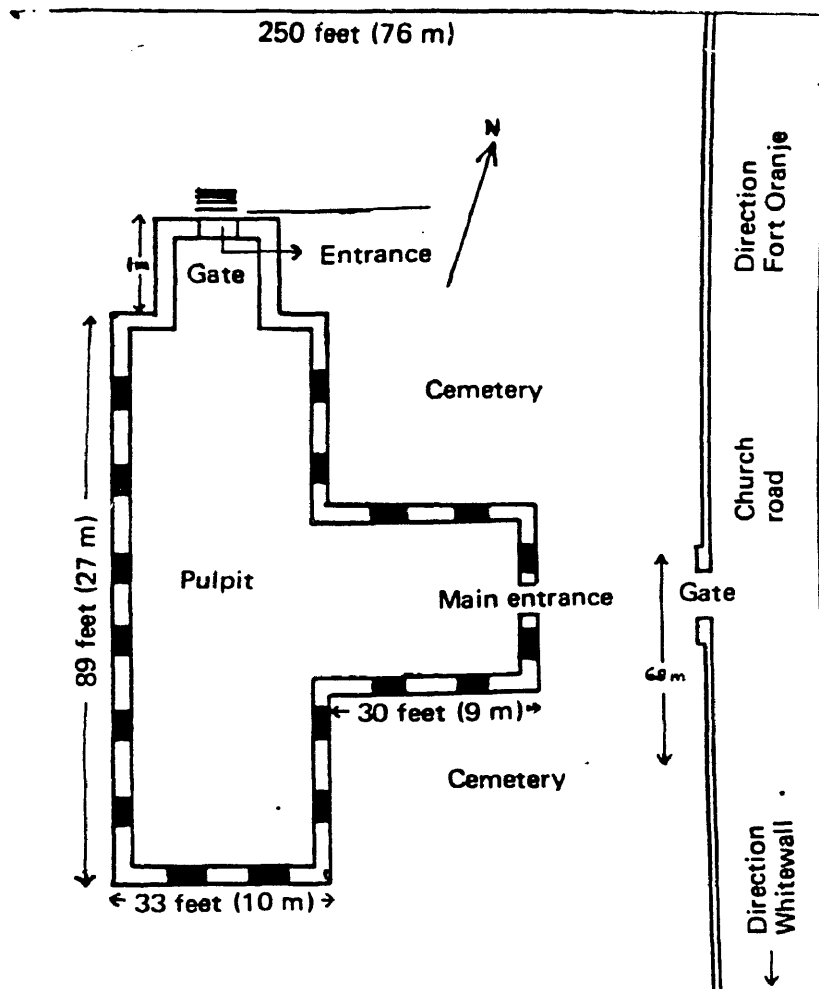
Plan of the Dutch Reformed Church
(after J. Hartog 1976)

142
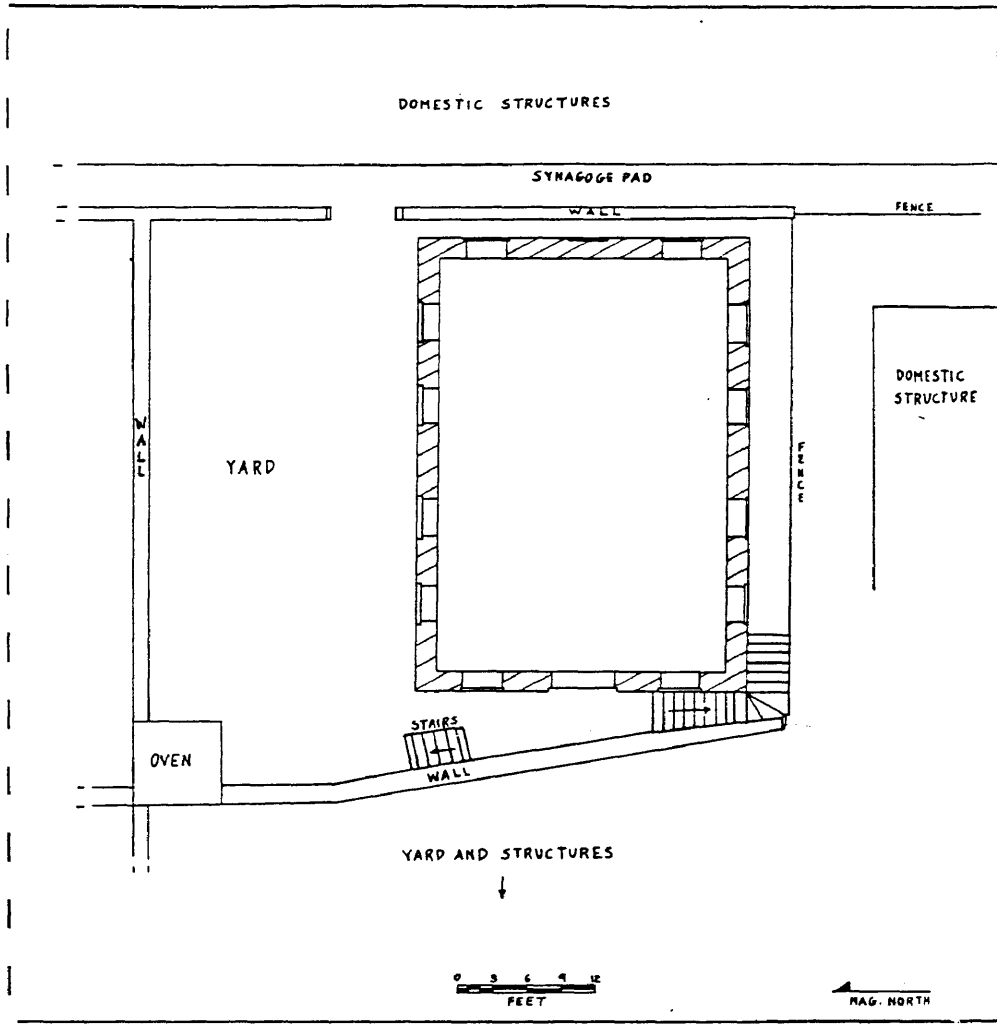
Figure 32

The Synagogue and Its Surroundings
(after N. Barka 1988)

Figure 33
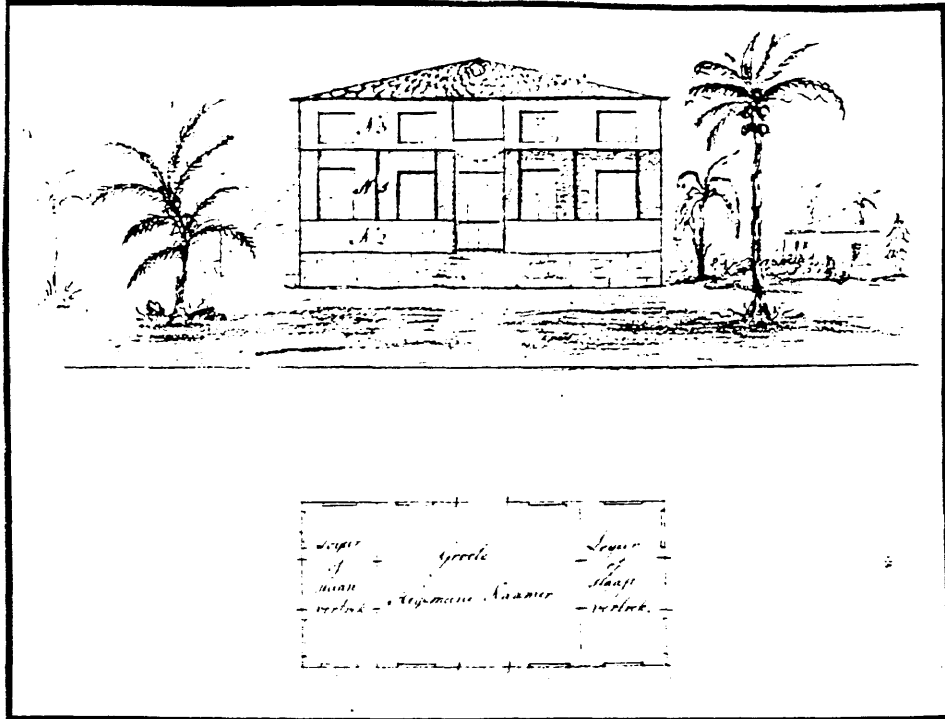
Drawing of a House in the Upper Town
from the Zimmerman Letter, 1792

Figure 34

The Government Guest House before Restoration
(after N. Barka 1990)

Figure 35
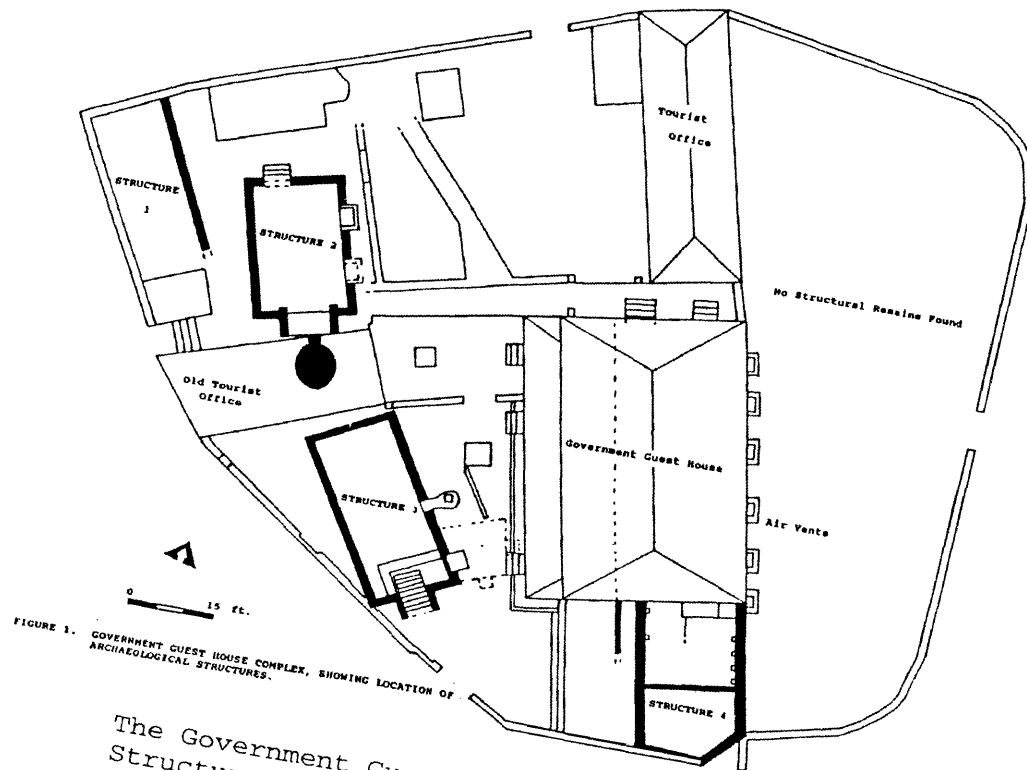
FIGURE 1. GOVERNMENT GUEST HOUSE COMPLEX, SHOWING LOCATION OF ARCHAEOLOGICAL STRUCTURES.

The Government Guest House Complex Showing Structural Remains Found Archaeologically (after N. Barka 1990)

146
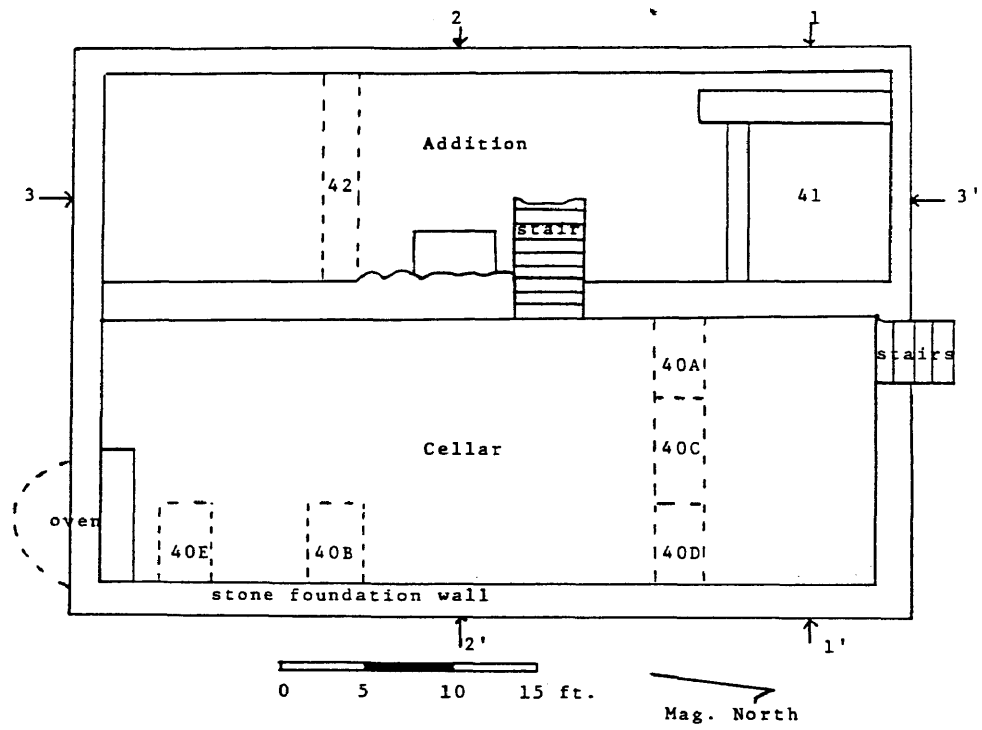
Figure 36

Plan of the Government Guest House Cellar
(after N. Barka 1986)

147
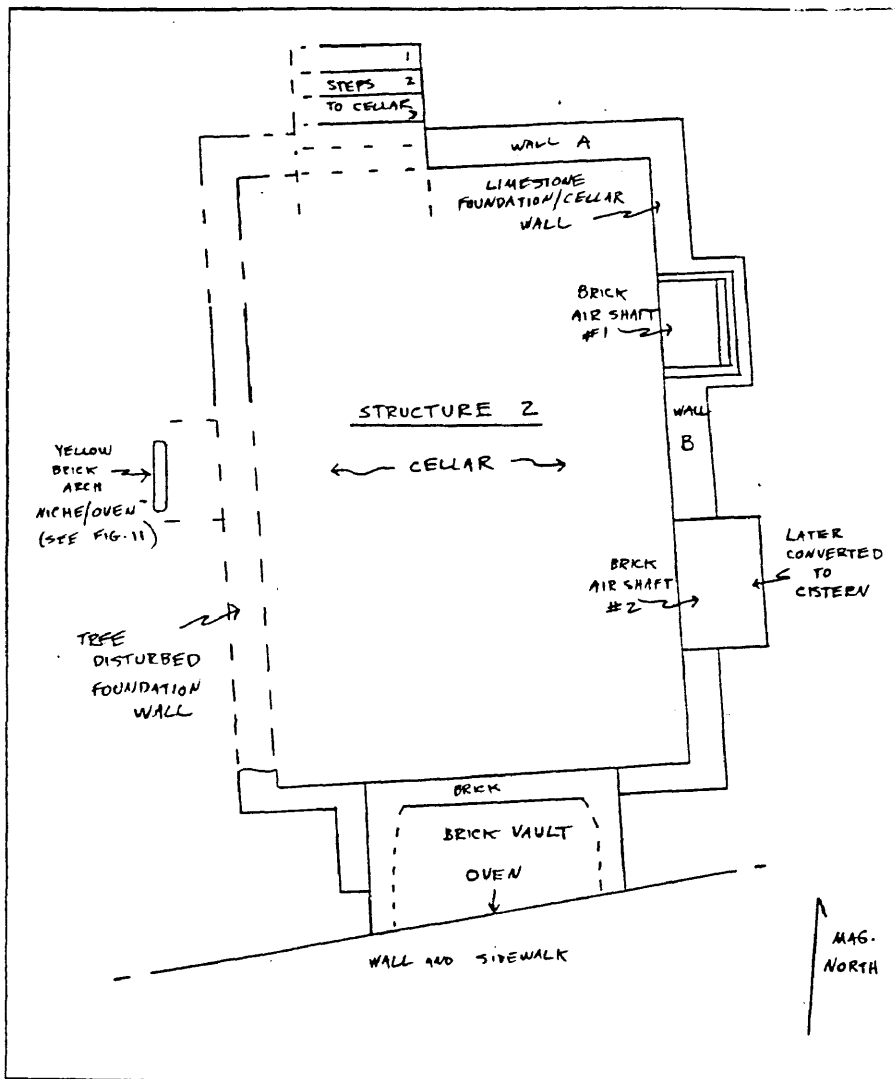
Figure 37

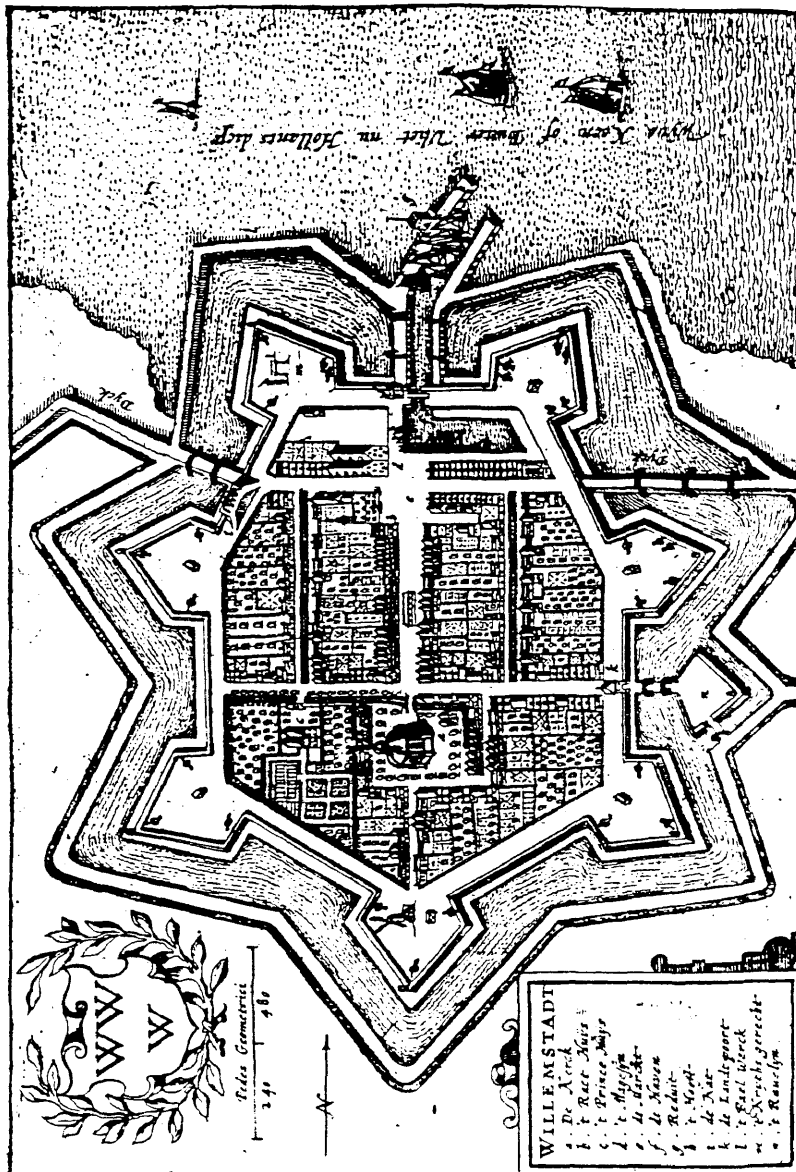Plan of Structure 2, Government Guest House
Complex (after N. Barka 1989)

148

Figure 38

Plan of Structures 3 and 3A, Government Guest
House Complex (after N. Barka 1989)

Figure 39
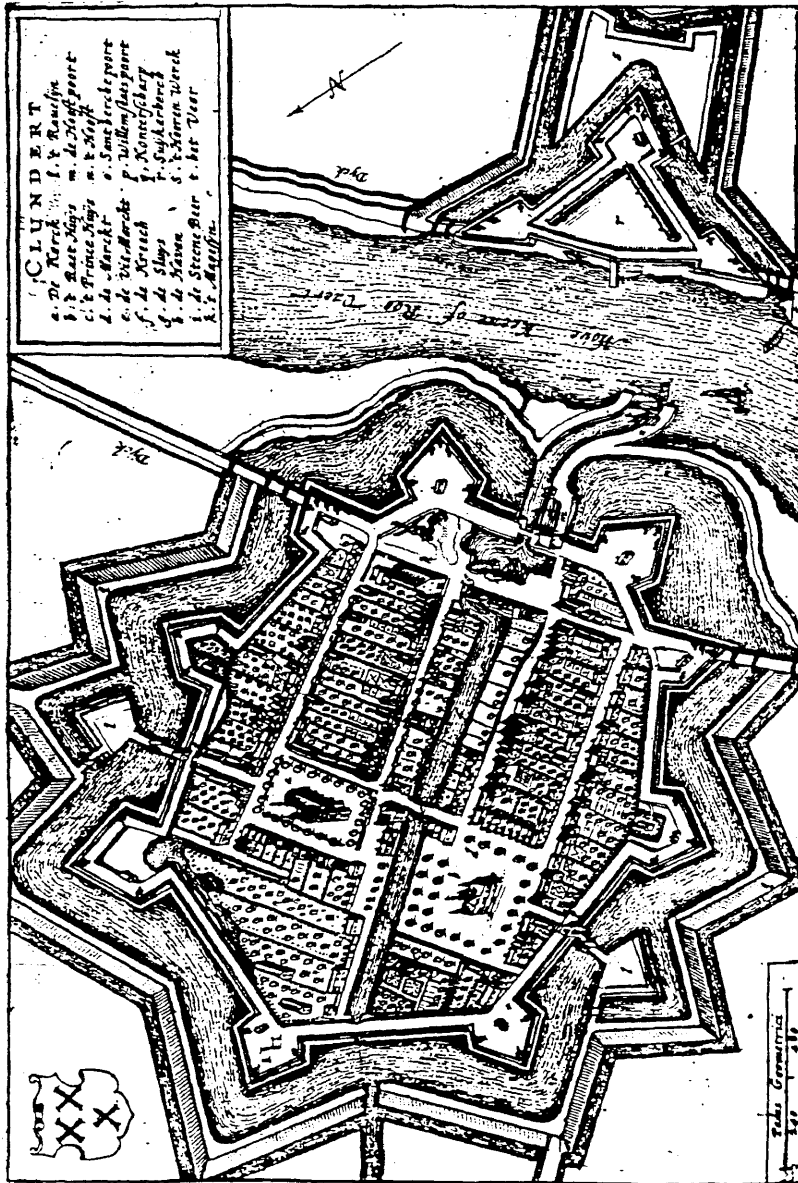
Klundert, Netherlands in 1642
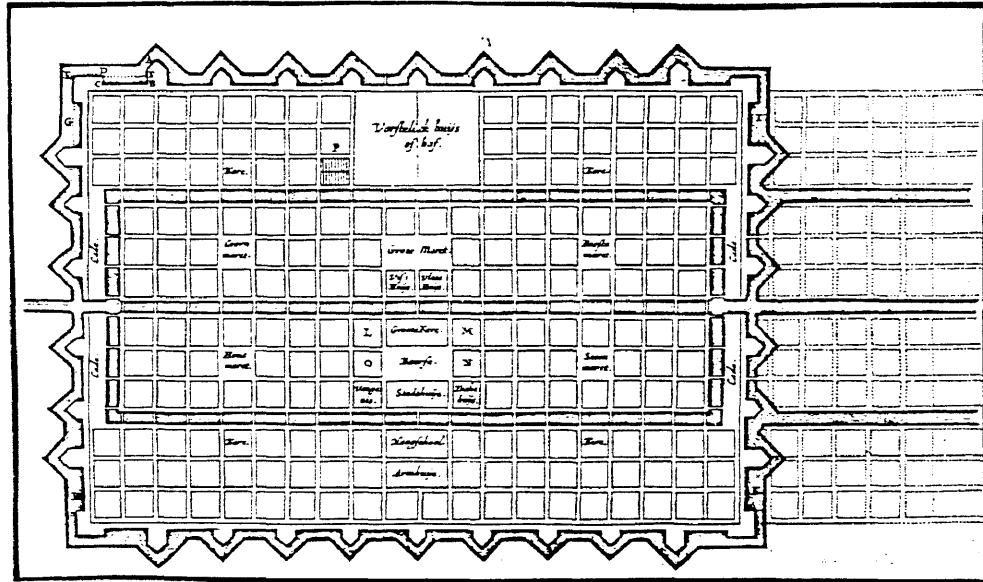(after G.L. Burke 1956)

Figure 40

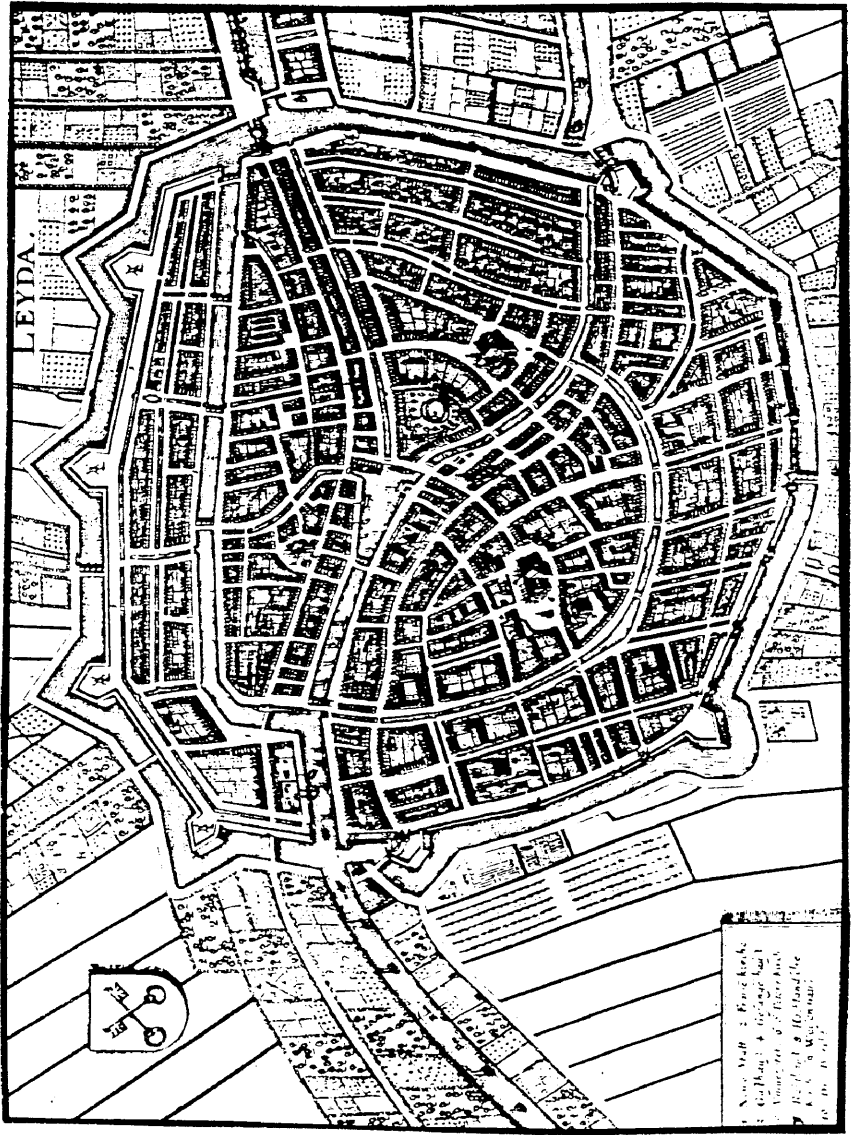Willemstadt, Netherlands in 1632
(after G.L. Burke 1956)

151

Figure 41

An Ideal Port City Plan by Dutch Planner
Simon Stevin, 1590 (after S. Kostof 1991)

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Figure 42

A View of Leiden, Netherlands in 1640
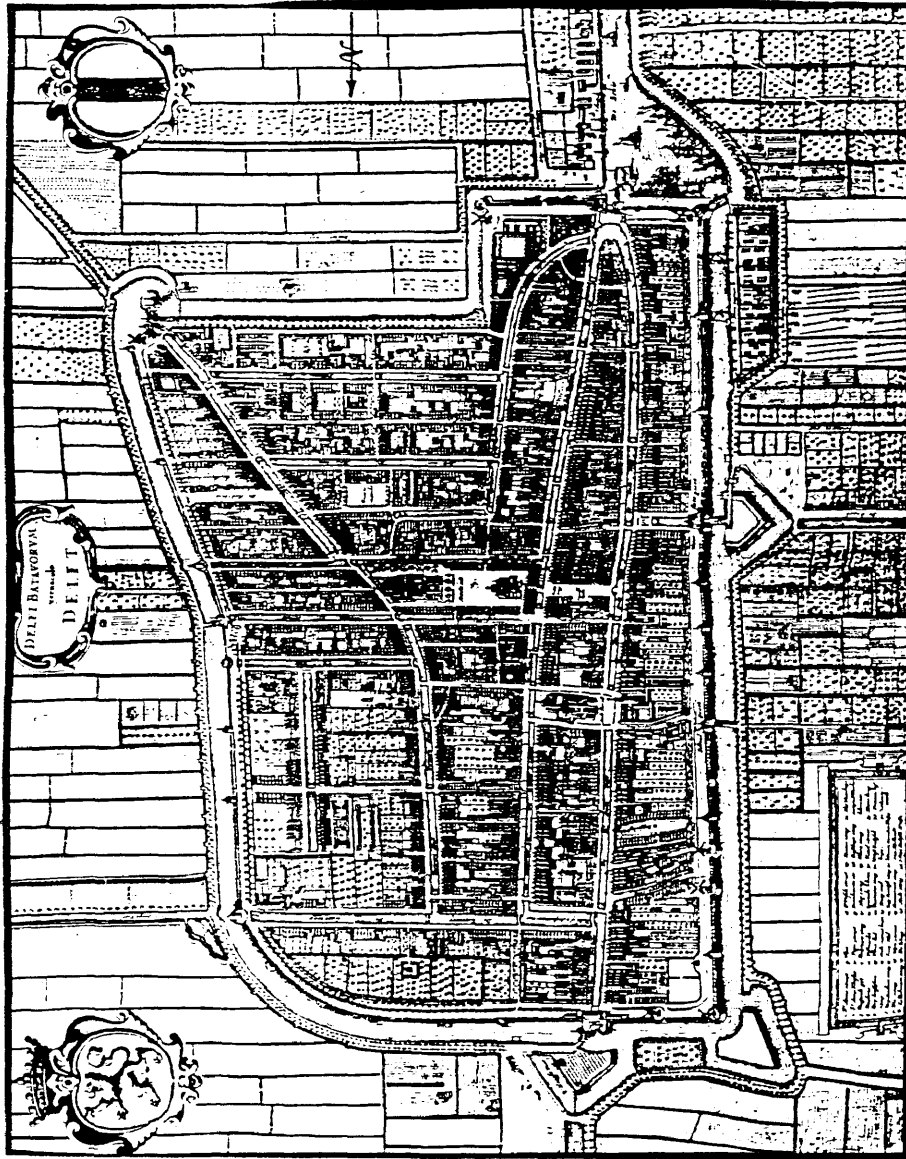(after G.L. Burke 1956)

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Figure 43

Haarlem, Netherlands in 1578
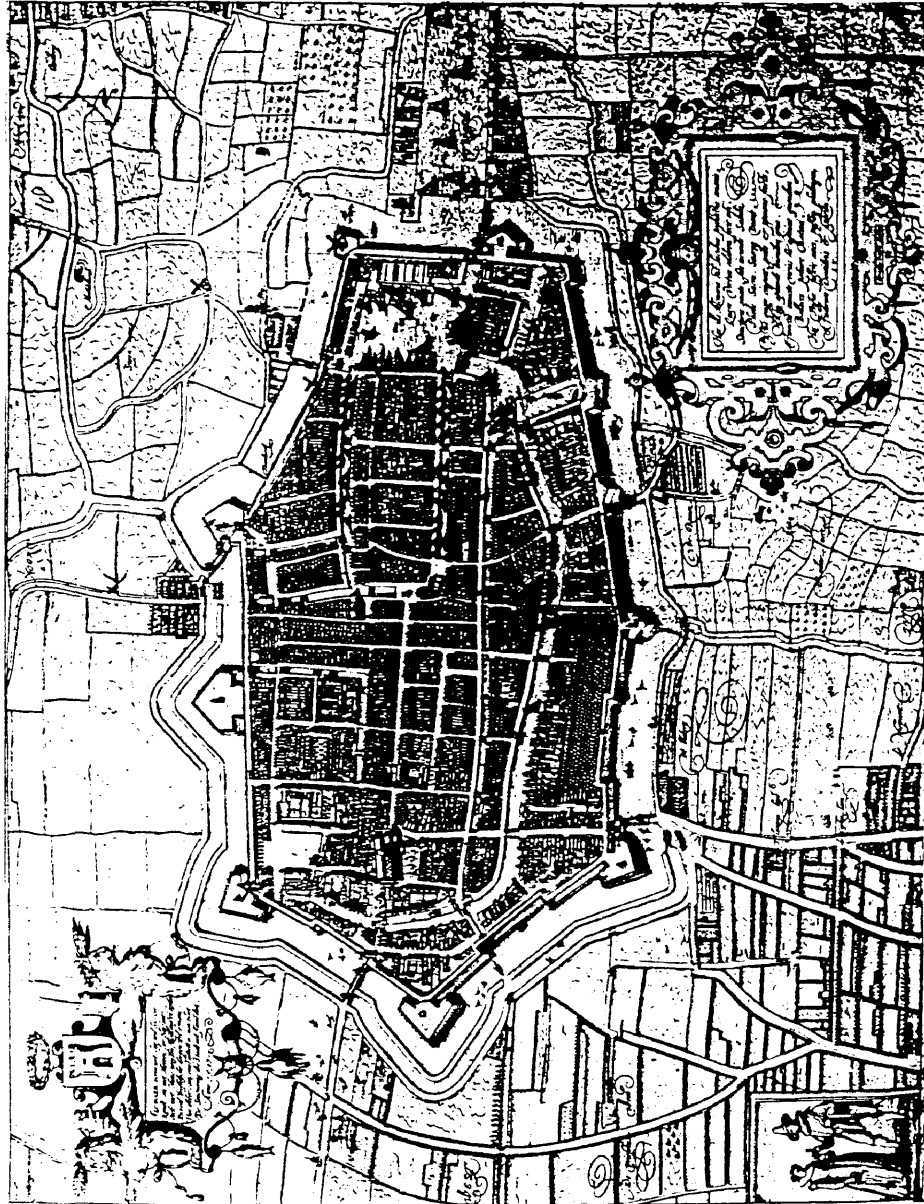(after G.L. Burke 1956)

154

Figure 44

Delft, Netherlands in 1650
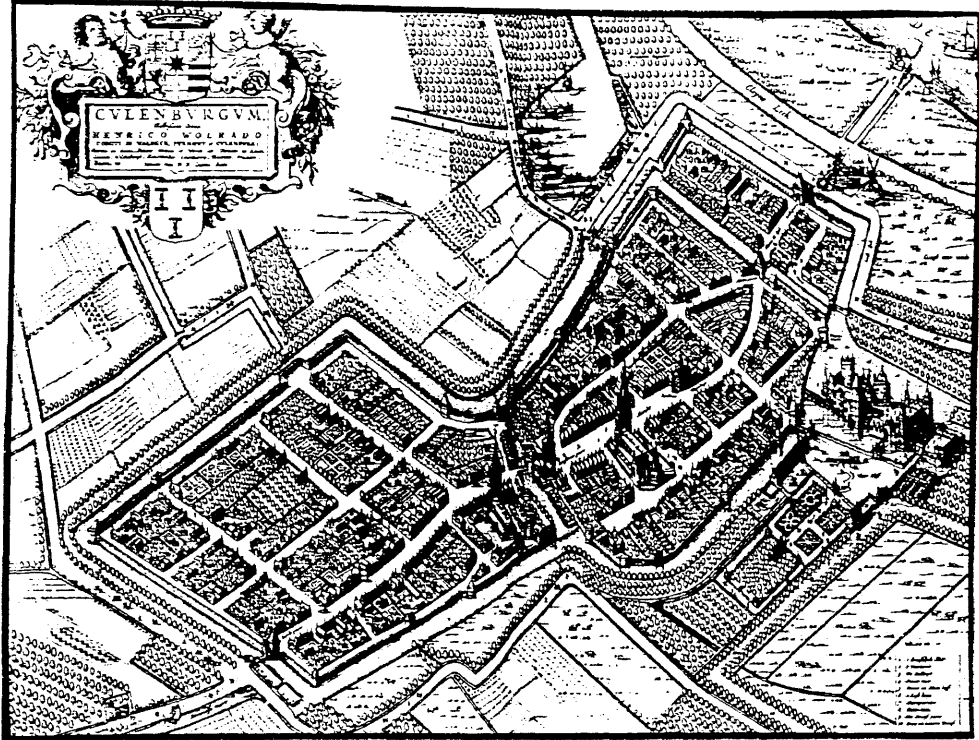(after G.L. Burke 1956)

Figure 45

Alkmaar, Netherlands in 1597
(after G.L. Burke 1956)

Figure 46

Zutphen, Netherlands in 1639
(after G. L. Burke 1956)

Figure 47

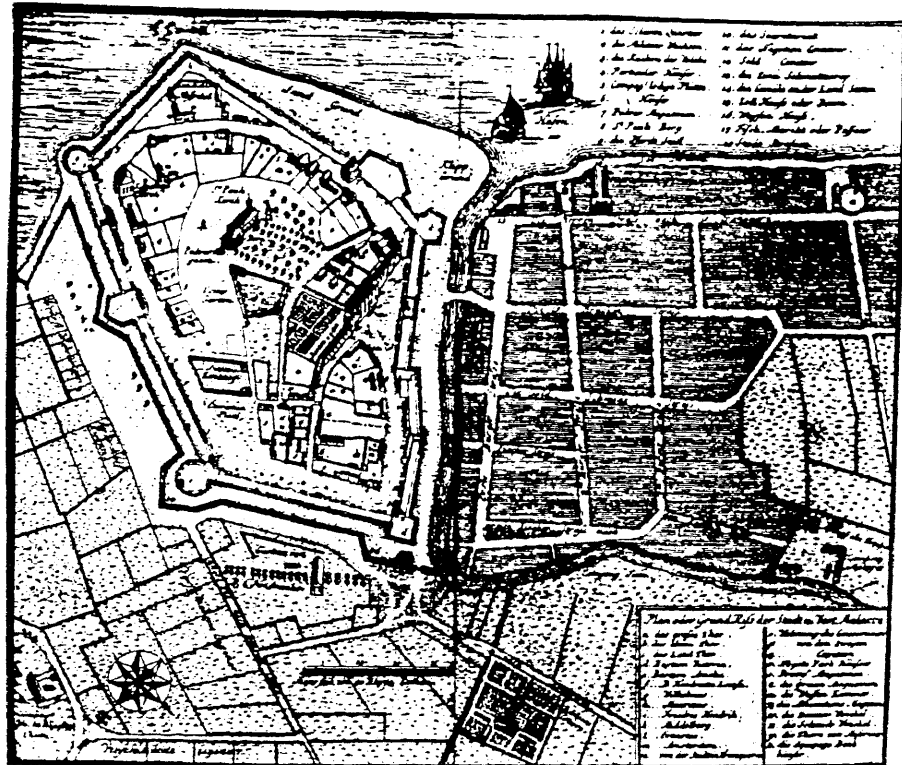Culemborg, Netherlands in 1648
(after S. Kostof 1991)

Figure 48

Amsterdam, Netherlands in 1681
(after J. Vance 1990)

Figure 49

Malacca under the Dutch East India
Company (after D. Grieg 1987)

Figure 50

Plan of Cape Town, South Africa in 1767

161
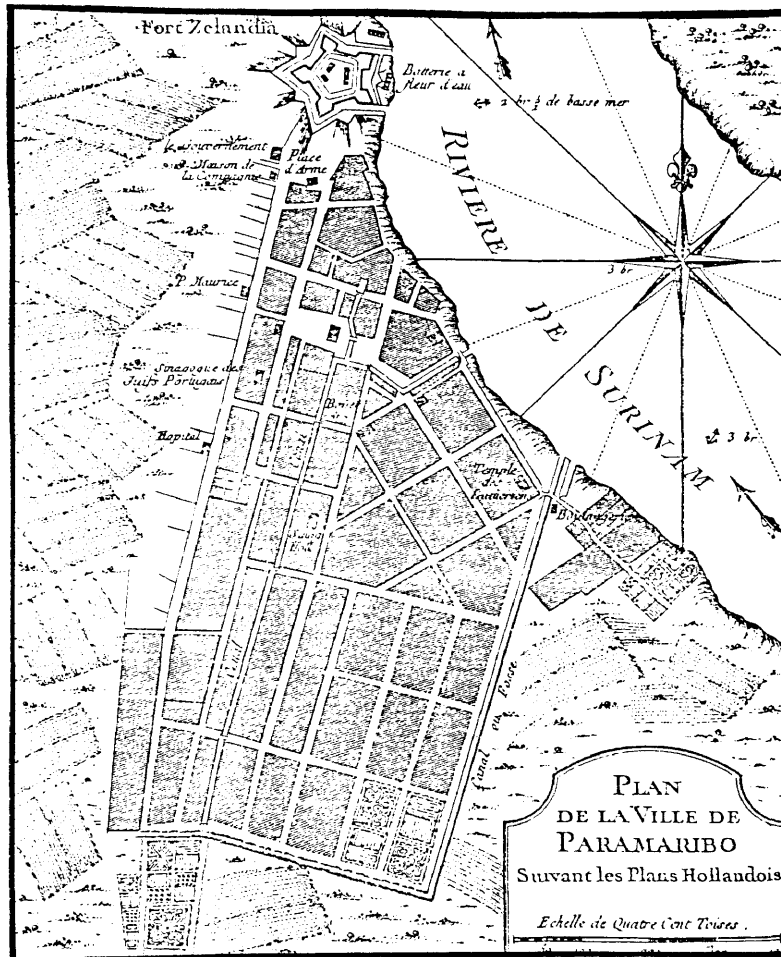
Figure 51

Plan of Paramirabo under the Dutch West
India Company, 1763 (after D. Greig 1987)

Figure 52

Plan of Seventeenth Century Antonio Vaz Island
under the Dutch West India Comapny
(after H. van Nedervenn Meerkerk 1989)

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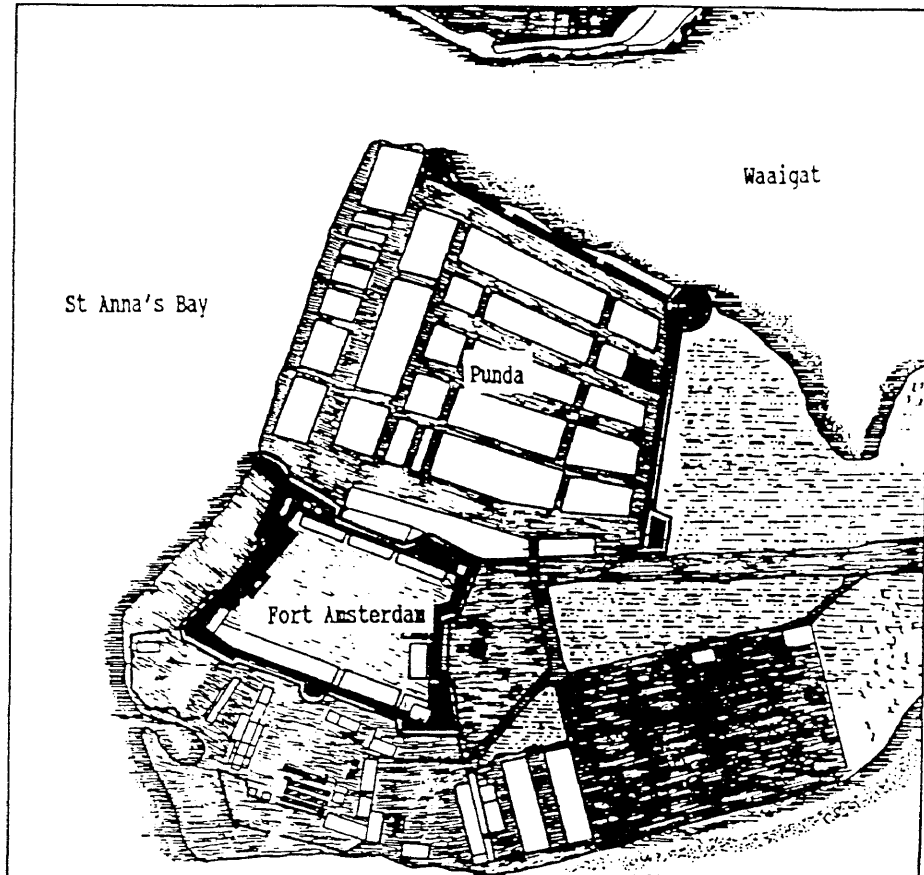
Figure 53

Punda and Fort Amsterdam, Curacao in 1754
(after M. Hall 1991)

Figure 54

Synagogue at Punda, Curacao
(after M. Hall 1991)

Figure 55

Map of Bridegtown, Barbados by William
Mayo, 1722 (after M. Bowden 1994)

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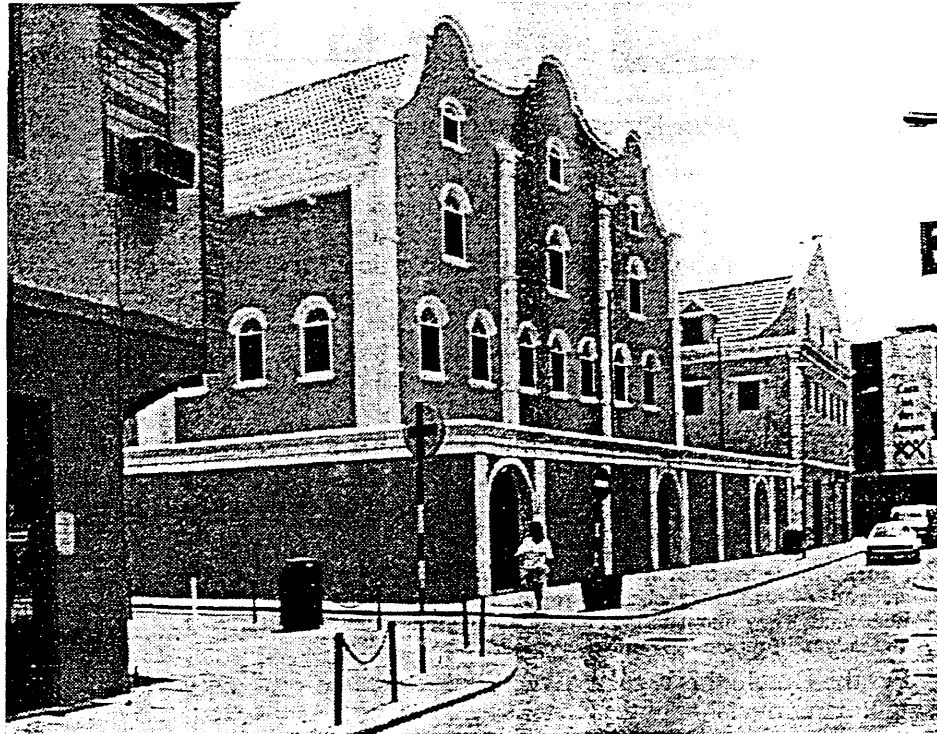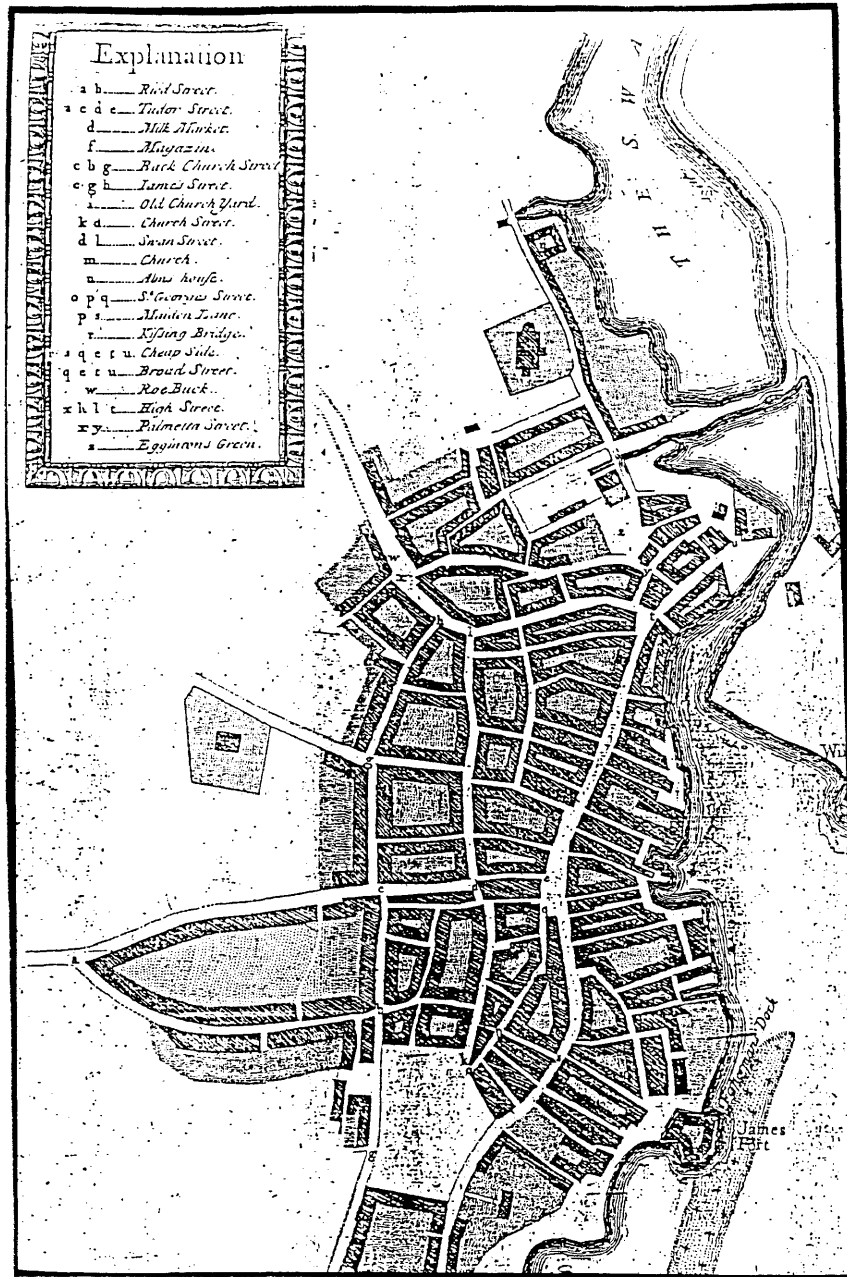   Mary, Department of Anthropology.

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