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ARCHITECTURAL STYLE ON 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

Suzanne Sanders

1988

APPROVAL SHEET

This thesis is submitted in partial fulfillment of

the requirements for the degree of

Master of Arts

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Approved, November 1988

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ABSTRACT

The purpose of this study is twofold. Frist to document building styles on Statia which are rapidly being replaced. Second to attempt to ascertain the extent of influence of Dutch and English building styles on the historic and traditional dwelling styles on the island.

A typology was created based on comparison of observed styles of architecture on Statia with those observed or documented on neighboring islands, as well as those documented in England and Holland.

Representative houses were photographed, measured and drawn. Plan and elevation drawings are presented for each type of structure identified.

ARCHITECTURAL STYLE

ON ST. EUSTATIUS

INTRODUCTION

On the heels of Columbus' voyages of discovery European powers began vying for footholds and strongholds in the New World. Tales of vast wealth to be had brought adventurers and entrepreneurs in search of fame and fortune. Efforts to extend the colonial system followed. Trade companies were established in attempts to gain and monopolize wealth in the New World, and at the same time transfer this wealth back to the Old World. European powers claimed and attempted to retain and defend as many as possible of the West Indian islands.

The resultant colonization of the West Indies produced a new culture area which was unique in its cosmopolitan flavor. This new culture area was made up of those aspects of European life most useful to people living in a tropical area, along with those native attributes which were most useful for survival. An added influence was created by the deep involvement of these islands in slavery and the slave trade. The society which resulted from this mixture of

Spanish, Dutch, Danish, English, French, Aboriginal and African customs, among others, was like none of these entirely, yet a little like each of them in some ways. Depending upon which colonial power or trade company controlled a particular island, and the duration of colonial influence, that one island culture may display more characteristics of one European society. None is identical to that of the governing country.

This colonial influence is displayed in many aspects of Caribbean culture, including material culture. The need for shelter is an integral part of adaptation to any environment. Buildings are some of the largest artifacts produced by man. Architecture reflects intangible aspects of any society, including values, attitudes, status and power.

> Architecture can provide settings for certain activities, remind people of what these activities are, signify power, status or privacy express and support cosmological beliefs, communicate information, help establish individual or group identity and encode value systems (Rapoport 1980: 299).

Vernacular architecture, those dwellings erected by average people for their own benefit and use, reflects these things especially well. Caribbean vernacular architecture

reflects the mixture of European customs which resulted from centuries of contact and competition. European house plans and construction methods were modified to accommodate tropical climates. Some of the adaptive features of these houses include louvered windows, the addition of a verandah. raising the house off the ground to allow air circulation, as well as adjustments in the plan and shape of the building itself (Towle: 4).

In addition to European design and construction, and local influences, there was the modifying influence of the tropical climate, and the limiting influence of the availability of materials. All of these in varying combinations and degrees produced a distinctive style of domestic architecture which is universal in the Caribbean, but whose basic model is varied and elaborated upon from island to island. Study of the development of architectural style on these islands can only aid in shedding light on the complex interaction of influences which resulted in the development of Caribbean culture. Studying the plan, materials, layout, and relationships among houses on the islands will help in identifying the rules and values the inhabitants consider necessary for living within their natural, social and political environment. As observed by Rapoport:

> ...the designed environments of particular cultures are settings for the kind of people which a particular group sees as normative and for the particular lifestyle which is significant for that group and distinguishes it from others (1980: 287).

This work will deal with Statian architectural styles, concentrating on traditional wood frame and masonry structures. It is meant as an introduction to architecture on the island, and is not meant as a comprehensive study of Statian architecture. In order to ascertain the types and styles present on the island it is necessary to consider vernacular architecture in general, as an area wide phenomenon. The area to be studied includes the Dutch Windward, and British Leeward islands, as well as the Virgin Islands (fig. 1).

In his 1983 article entitled "The First Comparative Studies of Caribbean Architecture", Jay Edwards reviewed three recently published studies of architecture in the Caribbean and suggested a method for further research. This method was aimed at systematizing the study of architecture throughout the Caribbean. After lamenting the past lack of real comparative studies Edwards suggested that architectural studies should borrow from ethnography in their approach to "the problem of collecting data". His

suggested approach consisted of three parts; survey work, historical research and comparative analysis. He recommended that survey methods be "carefully thought out...[and]...as comparative as possible". Plan and elevation drawings were suggested as integral parts of field surveys, including the widest possible range of buildings.

The second part of a total approach is the examination of historical documents and archival materials in order to establish a time scale for the change in construction style, materials and method. As he pointed out. "This will remain a difficult task in many Caribbean communities, where with even the best efforts, the historical record remains impervious to the kinds of questions we would ask of it" (Edwards 1983: 176).

The third element was the comparative method. "This method functions in part as a substitute for historical research. It is useful in cases where historical documentation is incomplete, as it so often is in the West Indies" (Edwards 1983: 177). Edwards went on to state that the types and styles of foreign architecture to be studied and compared depend largely on the history of the island in question and the origins of its population. Furthermore, there are two levels of comparative study: one dealing with European influence, and the other with intra-island influence.

In this survey of architectural styles on Statia an attempt has been made to include all three elements of study. In the field survey, buildings chosen as representative of those types found most frequently on the island were photographed and drawn. Where possible histories of these buildings' uses were taken. Because of the necessity of limiting the study only private dwellings in the upper portion of the town of Oranjestad were studied (fig. 3). Lacking historical records for many of these buildings, Edwards' second element, the study of documentation, is compensated for by added emphasis on comparison with observed and documented styles on neighboring islands. These include St. Kitts, Nevis, Saba, St. Maarten/St. Martin, and the U.S. Virgin Islands.

A total of nine months of field work, over a period of three years, resulted in the data on which this paper is based: June through August 1986, 1987, and 1988. In 1986 an informal survey of the Upper Town was done. Upper Town is that portion of Oranjestad which is above the cliffs which separate it from the beach front (Lower Town)(fig. 3). The Lower Town does not presently contain any domestic structures and so will be considered only briefly in this study.

Several structures were chosen which appeared to represent the readily discernible variety of styles found in

the Upper Town. This sample included nine buildings. These structures were measured, drawn, and photographed. Verbal descriptions were written for each building. While visiting neighboring islands stylistic differences and similarities were noted for comparison. These islands included St. Kitts, Nevis and Saba in 1986, and St. Kitts and St. Maarten in 1987.

During the fall of 1986 and the spring of 1987 written histories and descriptions of architectural styles on other Caribbean islands were examined in an effort to determine where the buildings on Statia fit in an area-wide scheme of building styles. These sources included travelers' accounts from the eighteenth, nineteenth and twentieth centuries, comparative and descriptive works concerning architecture on neighboring islands, and studies of English and Dutch architecture.

In 1987 the information gathered the previous summer was rechecked, based on the comparative information collected in the intervening months. Two more types of wood frame structure were identified, measured and drawn. Local carpenters were interviewed concerning construction methods, both present and past.

In the summer of 1988, a full-scale survey of the Upper Town was undertaken as part of the William and Mary Field School. In connection with this survey, which documented

every building in the Upper Town, it was possible to check information and conclusions drawn from earlier study. The survey added only one style of wood frame structure to the variety based on the initially chosen eleven structures.

This paper will present an introduction to the styles of vernacular architecture found on Statia , concentrating of traditional wood frame and masonry buildings. Vernacular is generally interpreted as referring to those structures which are planned and constructed by owners for their personal use. Public buildings such as government offices, churches and forts are usually planned by an architect who is hired for that purpose, and constructed by someone other than the user. These public buildings, called 'high style' by Rapoport (1980: 283), are intended for other purposes.

Traditional architecture on Statia refers to houses which are constructed using a wood frame, a basic rectangular floorplan, and building techniques which are defined as traditional and universal in the area. Some of the details which characterize traditional style include mortise and tenon joints on the framing, shingle clad exterior walls and unclad interior walls, along with the kinds of doors and windows used.

The aim of this paper is twofold, both to record building styles and types which are unique to the Caribbean, and are rapidly being replaced, and to attempt to ascertain

the extent of cultural influence, especially British and Dutch, apparent through the styles of dwellings constructed by island residents.

The first chapter of this paper outlines the historical context in which architectural styles and building materials were transmitted to the island, both from Old World countries, and from neighboring island colonies. The second chapter is a brief survey of works done recently which are concerned with the history and development of architectural style in the Caribbean. The third chapter briefly follows the development of wood frame architecture throughout the Caribbean. The fourth chapter includes an explanation of the typology developed for Statia, along with descriptions of house types. These include drawings of each structure.

In the conclusion these styles are compared and contrasted with those recorded or observed on neighboring islands.

CHAPTER 1

Historical Background

St. Eustatius, called Statia by its residents is a small island (fig. 2), along with its neighbors Saba and St. Maarten (fig. 1), one of the Dutch Windward Islands. The island was settled by the French in 1629, deserted and recolonized by Dutch settlers from Zeeland in 1636, under patent from the Dutch West Indies Company (Attema 1976: 16). Originally Statia was an agricultural colony, its inhabitants raising tobacco, sugar cane and cotton for export. Over time the island became an important free port and trade center. Its importance in trade, especially during the years of the American Revolution, earned it the title of The Golden Rock.

Because of this importance in trade, as well as for other reasons, Statia was the subject of much dispute among European colonial powers, especially Holland and England. The island changed hands 23 times between its colonization by the Dutch in 1636, and 1816. It was Dutch 10 times, governed by the French 6 times, and in British hands 7

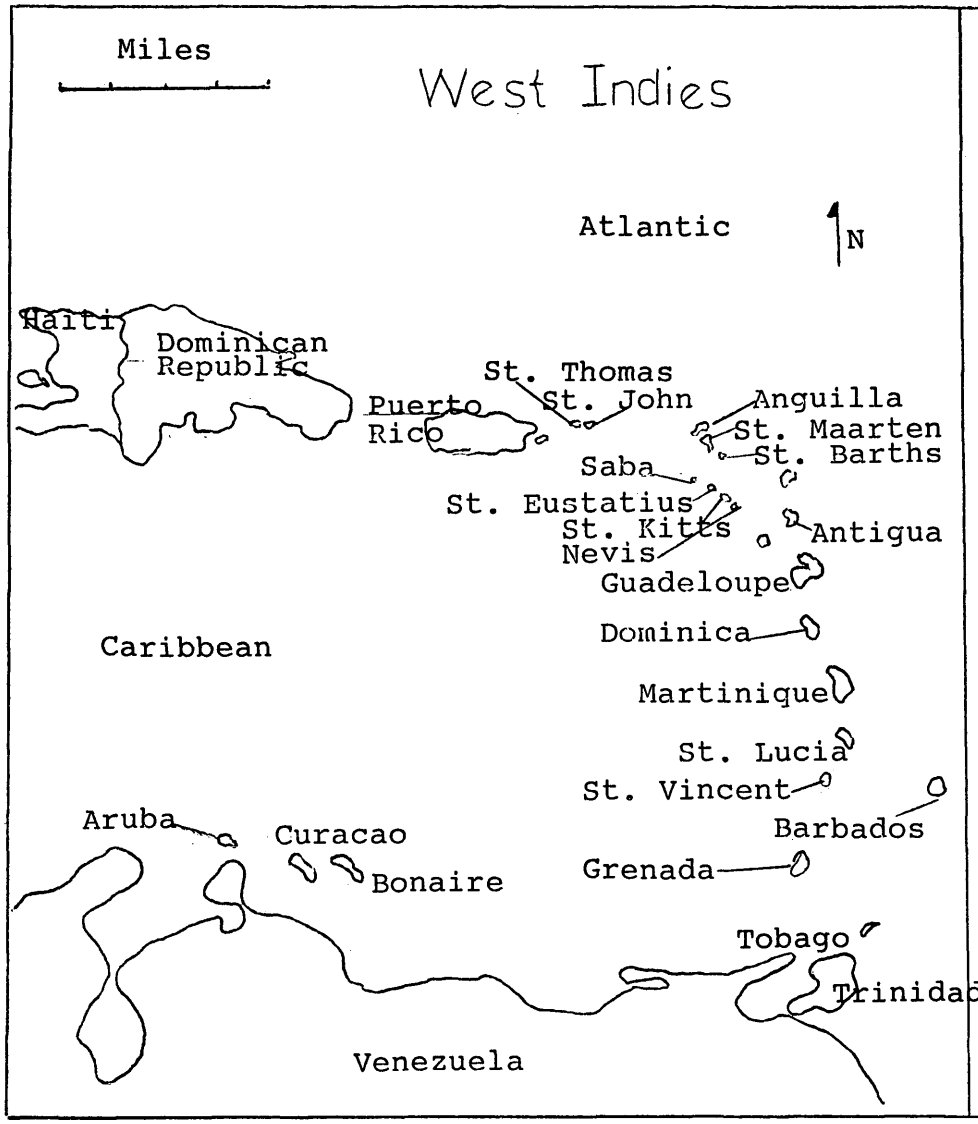


Figure 1.

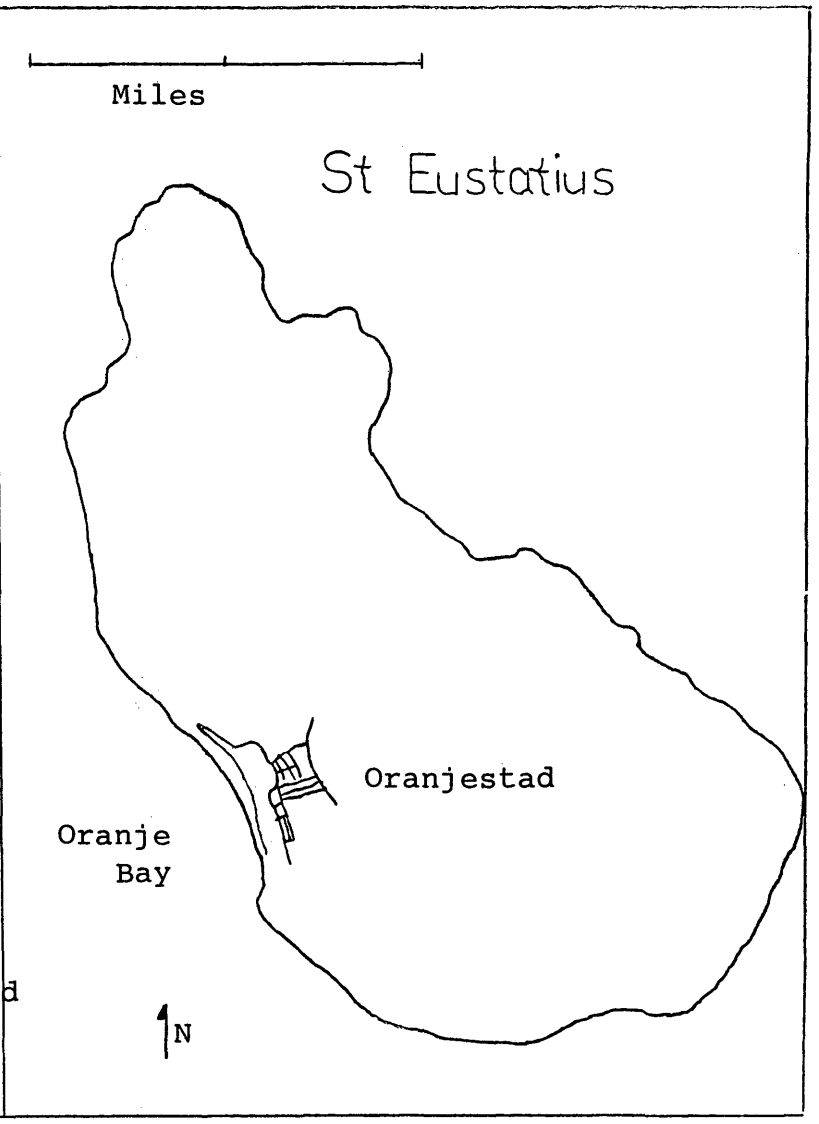


Figure 2.

times. The last change of flag occurred in 1816 when the Dutch took over from the British for the last time.

Many of these takeovers resulted from the Dutch traders' disregard for trade restrictions and monopolies imposed by their competitors. Their notorious willingness to trade with anyone in anything led to the creation of a thriving trade center on the island during the eighteenth century. Because of this long history of continued contact and commerce with a variety of European countries and their colonies in the Caribbean, St. Eustatius developed a very cosmopolitan society.

The history of the island implies that while recognizing the government of European countries, culturally the island tended to go its own way. Prohibitive distance from Holland limited the amount of Dutch influence on daily life. At the same time, the nearness of British and French colonies on St. Kitts and Nevis allowed a constant trade with those islands in the necessities of life. As a result, influence was greater from neighboring islands than from Holland. This phenomenon was not limited to Statia; it was the constant interaction among the islands which promoted the development of a society quite different from those in Europe.

Another important trade contact for Statia was the North American colonies, and this seems to have caused them

the most trouble. Trade with British colonies in North America prompted many of the British attacks upon, and takeovers of the island. Trade restrictions notwithstanding, the British colonies were a source of necessary goods. Supplies could be brought from North Carolina, Virginia, or Canada in less time and with less expense than from Europe. An important commodity that North America could supply with more abundance was wood. Great quantities of timber, in a variety of forms including boards, shingles and barrel staves were imported all over the West Indies. Much of this wood arrived in the form of modular or prefabricated house frames, ready to be set up on site.

Trade brought many people to the island in the eighteenth century. This resulted in a great deal of competition for space, both in the Lower Town where business was transacted, and in the Upper Town (fig. 3) where most of the island population seems to have resided. Due to the scarcity of land on Statia, and the closeness of the fields to the town, there was no room in which the town could spread (Attema 1976: 33) (Kandle 1985: 105). As a result space was at a premium. For this reason older structures were most likely removed and replaced frequently so that the Upper Town was continuously being rebuilt.

There are few records of what took place in the Upper Town. It did not directly concern the company as most of the

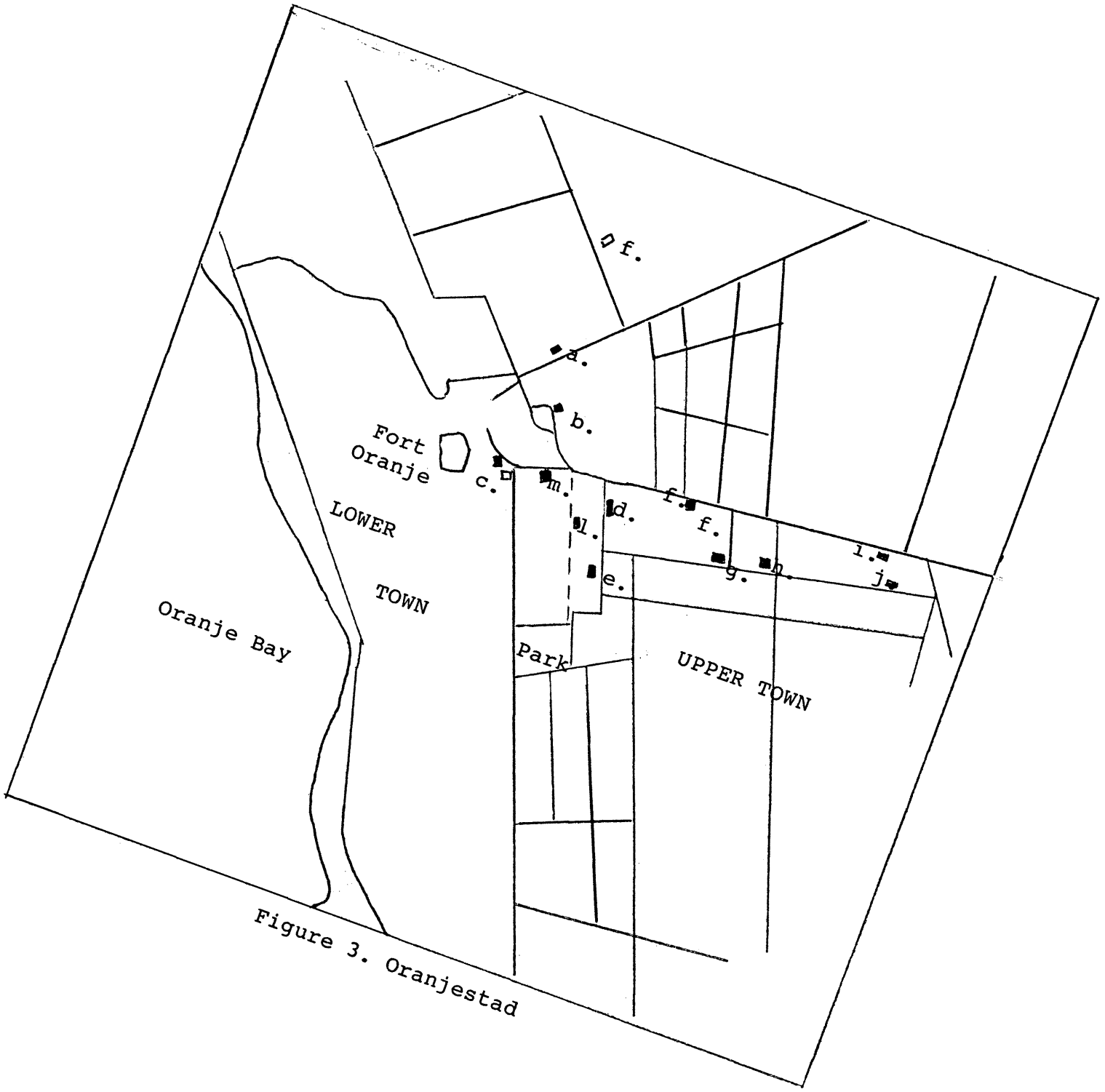


Figure 3. Oranjestad

land was private property. Hurricanes and invasions have destroyed most of the records which did exist. Several etchings, paintings and drawings have survived, but most show the Lower Town and only portions of the Upper Town (fig. 4). The accuracy of some of these is questionable, however, since works of this type were sometimes done from verbal description. In many cases the artist never personally saw the subject.

Statia's importance in trade declined in the beginning of the nineteenth century, and by the middle of the century the population had declined significantly. Those remaining on the island lost the trade contacts which had brought so much from European sources. Neighboring islands, especially St. Kitts and St. Maarten, became important trade links between Statia and the world. By the end of the nineteenth century Statia was once again an agricultural island, but residents grew their own crops for subsistence rather than for trade or export.

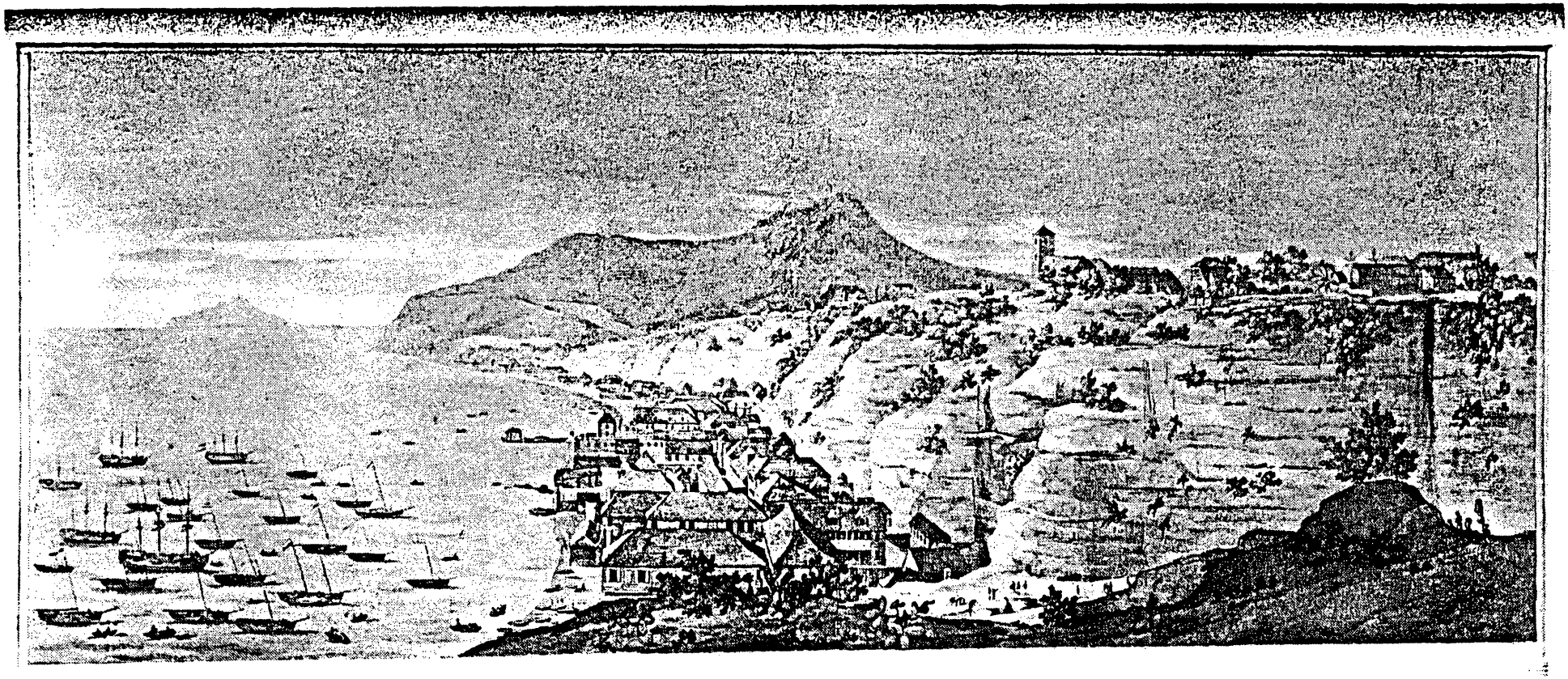


Figure 4. A. Nelsen Delen drawing of the Lower Town from 1774 (Attema 1976: pl.9).

CHAPTER 2

Survey of Works

Interest in architectural style in the Caribbean has been growing over the last thirty or so years. Early works were concerned with unusual or grand buildings. Plantation houses, forts, churches and government buildings were the most commonly recorded subjects of these early studies. Some consisted merely of a tour book-type listing of buildings of interest.

In 1951, A.W. Acworth wrote Buildings of Architectural Interest in the British West Indies. This was a laundry list of important buildings found on the British islands, along with some suggestions for the protection of these monuments. Acworth wrote an earlier article (1949) which dealt with Georgian buildings in the British West Indies. In that article he gave a description of what has become the typical British-derived West Indian building: a masonry ground floor with a wood frame first floor, and shutters and jalousies replacing windows.

Later studies showed the beginnings of interest in

following the development of the styles of houses found in the Caribbean, some to their Old World origins, and the preservation of examples of Caribbean style. Doran, in 1962, followed the development of hip roofed cottages as a European trait which was transplanted with colonists and servants. He concluded that this style most likely originated "within one hundred miles of the English channel, (Doran 1962: 97). Furthermore, he reported that the hipped roof cottage was introduced to the islands between 1625 and 1700, and that it has been rediffused in complex patterns ever since (Doran 1962: 97).

From this point, based on the assumption that:

> ....a house type is a cultural trait and that traits are more commonly invented only one time and then diffused to their known range rather than independently in multiple locations, then one may reason that there are four possible sources.... (Doran 1962: 101)

These four sources are Amerindian, African, Spanish, and those cultures located around the English channel: Dutch, English and French. These latter he considered the most likely sources, the type having been carried to the West Indies by indentured laborers in the late seventeenth and early eighteenth centuries.

He defined the hipped roof cottage by two principle criteria: the presence of a hip roof, and the pitch of said roof (35-50°). He discussed the typical plan of these houses, along with materials and construction, and showed the distribution of this type of structure. His figures showed that Saba had 20, Statia - 26, St. Kitts, 36, and St. Maarten, 64. Based on his observations he stated, with reservations, that the house type occurs most frequently in the British and Dutch West Indies.

In a series of articles in the mid-1970s, John Vlatch followed the origin and development of shotgun houses on Haiti. In Part 1, published in Pioneer America in January 1976, he discussed the development of the shotgun house as the adoption of an African (Afro-American) artifact by whites. He described the spread and development of the house type in North America and quoted Fred B. Kniffen (1962) in defining a shotgun house as "....one room in width and from one to three rooms deep, with frontward facing gable...".

The shotgun, he reported was used in rural as well as urban settings. Several sub-types, he continued, indicated long acquaintance with this form in the American southeast, especially Louisiana. Aside from the basic shotgun, three sub-types were identified: the double shotgun, camelback and north shore.

> The double shotgun...consists of two single houses built side by side under one roof, camelback houses...are single and double shotguns which have two storey rear sections. Louisiana north shore type...[is]...a single shotgun surrounded on three sides by wide verandahs...(Vlatch 1976: 49).

After briefly describing the history of the shotgun house in Louisiana he concluded by indicating that possibly the origin of the type was in Haiti. His conclusion was based on his observations along with the presence of free blacks from Haiti in New Orleans when the first shotgun houses were built there.

In Part 2 of the article, Vlatch began by pointing out the similarities between houses in Haiti and shotgun houses in Louisiana. Following a brief explanation of details and construction of Haitian shotguns, he asserted:

> The architectural links between Port-Au-Prince and New Orleans cannot be denied. All the non-essential details that are associated with the shotgun in Haiti are also associated with the shotgun in Louisiana, although not always to the same degree. It is evident that the concept of the shotgun house was imported from Haiti and with that form came a host of practices that Haitians considered appropriate and fitting for the type.

> The continuation of these secondary features in Louisiana clearly shows that Haiti provided the basic model for New Orleans' own shotgun house (Vlatch 1976b: 60).

Carrying this observation further, Vlatch indicated that the Haitian connection points to a strong African involvement in the development of this type of dwelling. The original plan and design was influenced by contact and mingling with Arawak indians who constructed a similar style dwelling. Valtch cited the observation that a majority of slaves brought from West Africa were from Yoruba-related peoples who constructed a dwelling to which the shotgun can be traced (1976b: 68). The shotgun, he maintained, was the end result of a process of adaptation of familiar architectural types to New World circumstances.

In the late 1970s and more recently, there has been an added interest in the architectural styles found in the Caribbean, and a focus on the smaller, vernacular dwellings. In an article in 1979, Robert Brown examined vernacular architecture in Fredriksted, St. Croix. Here the author looked at those small, private dwellings which were earlier overlooked in architectural studies of the West Indies. After defining vernacular as "common architecture of ordinary people", he gave a brief history of Fredriksted and

cites one of the major factors shaping the style of architecture in the Caribbean:

> The destruction caused by hurricanes and earthquakes are constant fears throughout the Caribbean islands. The damage wrought to the islands by these natural disasters quite often influenced the design and construction of West Indian architecture. Few buildings were over two stories high and most were anchored firmly on strong masonry foundations (Brown 1979: 7).

This description could fit structures found on any island in the Caribbean: stone or masonry ground floor or foundation walls, wood frame first floor, jalousies, louvered shutters or solid shutters on both doors and windows, verandahs on either back or front or both, galleries extending from the first floor over the sidewalk, and ornamental wooden fretwork on the exterior (Brown 1979: 7-10). In addition he included plan and elevation drawings for those buildings surveyed. This was an important part of his study, along with illustrations of the varieties of window treatment, hardware, balusters and scrollwork he encountered. The inclusion of these details is important when these works are used for comparison with styles elsewhere.

The later studies included more descriptive material in an effort to facilitate more comparison among islands. In a 1980 article, Jay Edwards attempted to bridge the gap between description and comparison. He tried to ascertain the origins of some of the characteristic features of Caribbean vernacular architecture. He divided the development of vernacular architecture in the British West Indies into five stages. Stage 0 was the period before development proper, stages 1-3 occur during British control, and stage 4 is the development of an architectural style unique to the western Caribbean islands (1980: 292-293).

Edwards presented two models he thought were relevant to the study of vernacular architectural traditions. One is diachronic, the stages in the process; the other is synchronic and structural: "...the house form represents a compromise between a number of distinct forces, including the environment, materials, technology and the requirements of the social system" (1980: 293). The main determinant, he went on to say, was none of these, but "...is an abstract aesthetic shared by bearers of vernacular tradition ... principles which are ultimately arbitrary and conventional take the form of a hierarchical rule set or grammar (1980: 293)." It is this rule set, or grammar that Berthelot and Gaume were attempting to define in their 1980 work Caribbean Popular Dwelling.

Concentrating on the French Caribbean, they dealt almost exclusively with huts and cases: the structures built by the lower classes, both urban and rural, for their personal use. They identified two different systems of modular construction. One is a rectangular-based house and the other is a dwelling built based on a square module. These, they asserted, are the bases of all of the different styles recognized today.

Berthelot and Gaume explored the origins of these basic modular house types, followed their historical development on some islands, and compared development of certain details which can be used to determine style among the islands. they offered plan, elevation, and profile drawings for all styles discussed. Finally they attempted to develop a grammatically based model for development and variation from the two basic models. They arrived at the conclusion that Caribbean architecture can be called a Creole in the same sense that a language can be called a Creole. Important, basic elements and rules are taken from a variety of sources in order to develop a system which works in a new set of circumstances. As a result of this process a new rule set is developed which contains pieces of earlier sets, but is not identical with any of the sources.

Continuing the trend toward study of the development of vernacular architecture in the Caribbean, John Lewis, in

Architecture of the Caribbean and Its Amerindian Origins in Trinidad (1983), traced the development of private vernacular dwellings from the native tapia through Spanish and French adaptations, establishing the developmental history of the basic type of timber house found on Trinidad. The largest influence on this development, he concluded, was the invention of the balloon frame in Chicago in the mid-nineteenth century.

With this invention and the subsequent standardization of materials, a 'vigorous timber tradition' developed in the Caribbean. Lumber was cheaply imported from the United States and Canada. Based on this balloon frame a wide variety of types of structure developed. Each island adopted basic features in different ways according to tradition, needs and desires. On Trinidad, Lewis reported, the variety of structures ranges from the basic, small modular dwellings to elaborately decorated structures. Lewis' work presents a history of architectural development on Trinidad which may well represent that of other less well documented islands. Just as Berthelot and Gaume have done, Lewis attempted to sort out the intermingled influences and circumstances which determined the ways in which Caribbean vernacular architecture grew and developed.

Pamela Gosner, in Caribbean Georgian (1982), traced the European origins of types and styles that developed and

spread throughout the West Indies. She saw the influence of the Middle Ages on early house plans, especially the two room hall-and-parlor. These types were carried to the West Indies and modified to fit the climate and the availability of materials. She described the types of buildings she considered characteristic, including the shop/townhouse and the plantation house. She believes that by the end of the eighteenth century a characteristic West Indian style had developed from the basic medieval structures.

After dealing with religious architecture, she delved into folk architecture, For her purposes this referred to 'the houses of the laboring classes, from one room peasant huts to small but substantial farmhouses (1982: 71)'. She described smaller houses, including pole huts, medieval cottages and frame houses. Island by island she described folk architecture observed on islands including Barbados, Martinique, Jamaica, Nevis, and St. Kitts.

These latter works show the growth of interest in vernacular architecture both in the Caribbean and elsewhere. They also indicate the evolution of the study of architecture from a list of interesting buildings to investigation of the influences which affect the development of architectural style.

CHAPTER 3

History of Caribbean Vernacular Architecture

The wood framing tradition which was brought to the Caribbean from England began with a form called cruck buildings (fig. 5) because of the shape of the main timbers. Early cruck buildings used tree trunks as the main structural feature, serving as corner posts, studs and rafters. These supported the roof, and walls were added as a separate structural feature which did not support the roof. This type of framing was gradually abandoned and the box-frame (fig. 5b) became more popular, although they were in use simultaneously for some time. These buildings, whether box-frame or cruck, were only one room deep. The "....complicated trusses which enabled [carpenters] successfully to roof houses two rooms deep...." were not developed until the seventeenth century (Cave 1981: 51). Walls were filled with wattle and daub, clay, bricks or lath and plaster (Brunskill 1982: 172-179).

After 1600 lack of wood dictated the use of shorter spans. The box-frame used shorter timbers and had separate

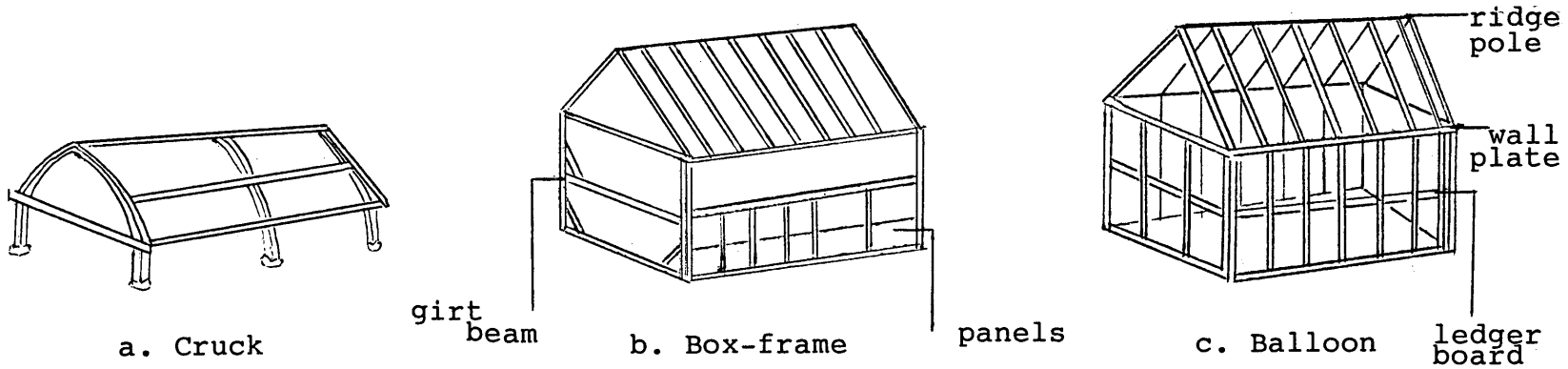


Figure 5. Framing

roof framing. Here the walls were important structural members as they supported the roof. Walls were made either by a closely set series of studs, or by dividing the bays (the area between the studs) into square panels (fig. 5b). When panels were used these were braced at the corners for greater stability (Brunskill 1982)(Cave 1981).

This square paneled box-frame was the tradition the English brought with them to the Caribbean. Planters and servants alike arrived from the British Isles with this basic form as part of their cultural heritage. As Doran noted in his 1962 article about West Indian hipped-roof cottages, these forms most likely "....originated within one hundred miles of the English Channel...", and were introduced to the islands between 1625 and 1700 and diffused in complex patterns throughout the area since (Doran 1962: 97).

There are few available sources which deal to any extent with Dutch architecture. Most are concerned almost exclusively with large public or religious buildings, or with estate houses. Very little documentation can be found for the smaller vernacular dwellings, urban or rural. For example, Dutch Classicist Architecture written by Kuypher in 1980, shows many public buildings, as well as the interiors and exteriors of a selection of churches and cathedrals. Large urban buildings are fairly well covered, including

some larger private dwellings. But these are not vernacular dwellings. Smaller houses are not discussed.

A search of paintings and drawings from the seventeenth, eighteenth and nineteenth centuries shows several types of smaller dwellings. Most are one story thatched cottages, with masonry or earthen walls. These have small windows and interior chimneys. A drawing by Ruisdaiel, who worked in the mid- to late-seventeenth century, shows half-timbered cottages not unlike those recorded in England around the same time. These have steeply pitched gable roofs and overhanging eaves (fig. 6). They appear to have been constructed out of a combination of materials. The bottom portions of the walls are stone, and the upper sections are half-timbered. The roofs are either clad with wood shingles, or covered with thatch. The windows in these houses are small, like those in English rural cottages.

Some urban structures are included in these paintings. For the most part these are masonry, usually brick. with raking gables. These are usually shown with the gable end oriented toward the street. Similar structures are shown in drawings of Albany and New Amsterdam in New Netherland. A lithograph by G. Hayward & Company, done in the mid-seventeenth century (fig. 7), shows a view of New Amsterdam at that time. The buildings have pantiled roofs, stepped gables, dormer windows, and interior chimneys. These

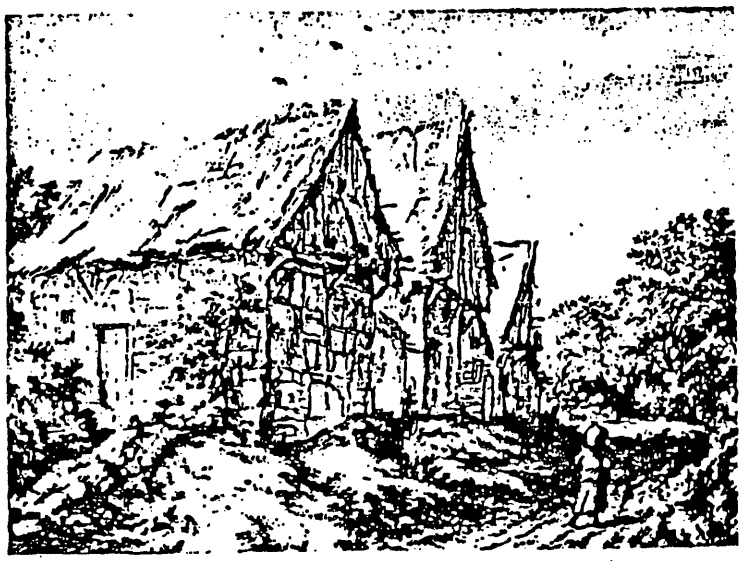


Figure 6. Ruisdaiel drawing of a peasant cottage in Holland (Rose 1969: 27).

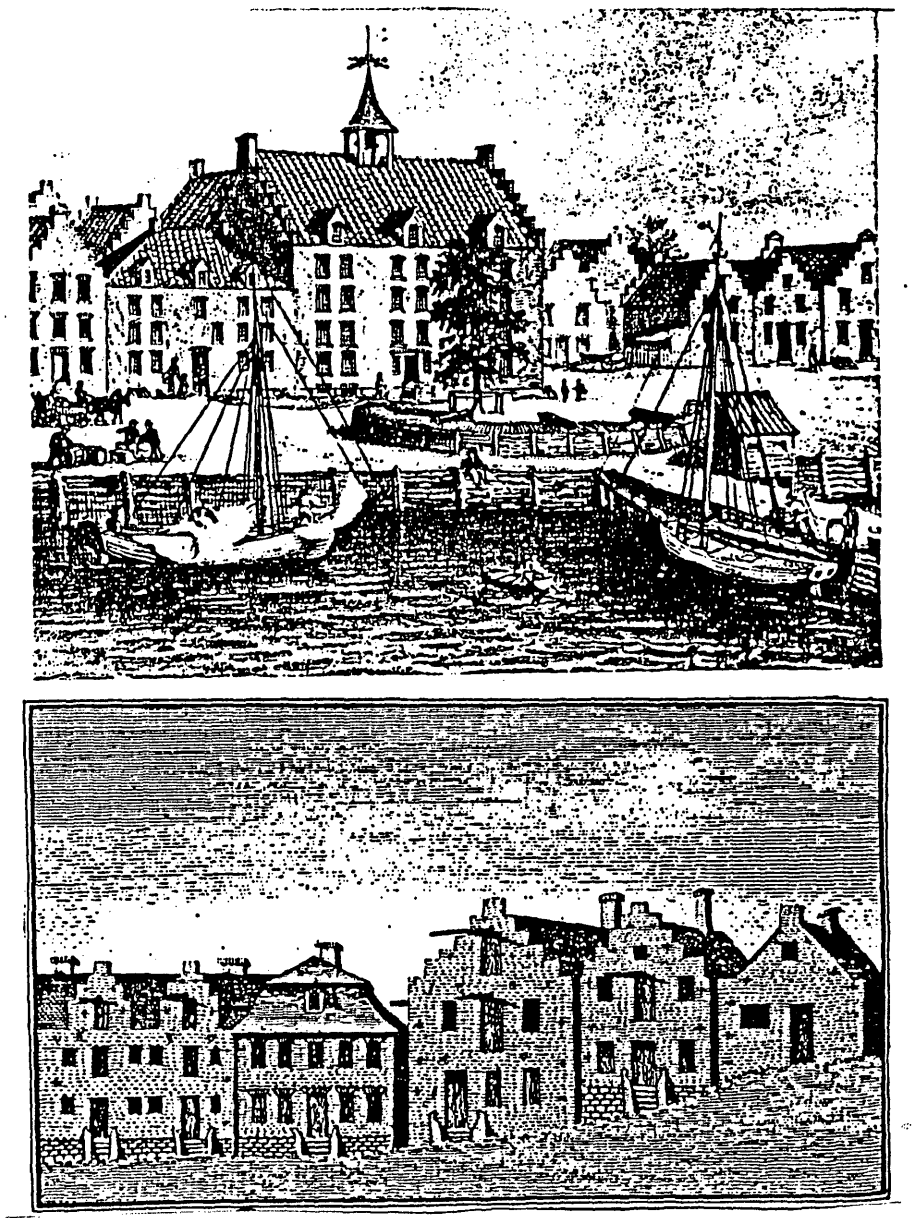


Figure 7. (right) New Amsterdam Ca. 1630 (Above)(Dillard 1963: 70). Albany in 1789 (below)(Dillard 1963: 74).

are very similar to those recorded in the Netherlands, and in Curacao. There is one structure shown in the lithograph with a hipped pantile roof, but this is an exception. Pictures of both New Amsterdam and Albany show buildings whose style can be easily traced to origins in Holland.

Studies of Dutch architecture in North America show generally two basic types of dwelling. One is a brick multi-story building with a steep gabled roof, some with raking or stepped gables; the other is a one or one-and-a-half story house constructed of a shingle or weatherboard clad wood frame . A unique feature of these houses is their curved eaves which may extend quite a distance beyond the side of the building. One aspect of the construction of these houses which is attributed to Flemish influence is the use of wood shingles as exterior cladding.

When Europeans reached the West Indies they found, in some areas, native inhabitants who were constructing houses from poles and reeds in a basic rectangular plan. On Trinidad these were called 'ajoupas' (Lewis 1983: 4); elsewhere they were referred to as 'bohios' (Edwards 1980: 326). Early settlers borrowed techniques from native builders and built themselves houses of the same materials.

> Adopting the construction methods and designs of the Arawaks and Caribs, the Powells [on Barbados] and their company put up at least a hundred

> "houses" ... The next year, 1628, Anthony Hilton and his companions quickly threw up the same kind of shelters when they settled at Nevis which they had previously raised on St. Christophers. Fabricated out of forked sticks, withes and leaves, and situated under the shade of tall trees....(Bridenbaugh 1972: 37).

This native building tradition was mingled with traditions brought from other areas including Central and West Africa. As Lewis reports for Trinidad:

> ....the cultures beginning with the Amerindians were slowly overlaid by new influences. Continually, as the timber decayed, ideas changed and new ajoupas were built. The Spanish introduced European proportions but maintained the Amerindian technology. The French changed to timber and shingle walls and shingle roofs, but the basic character was still there....(1983: 47).

The influence of native building traditions was minimal in some areas, and nonexistent in others. But on some of the Western Caribbean islands the influence, if not the actual practice, was carried through successive stages of development. Intermingling of native populations with Spanish colonists, through forced labor, on islands in the Greater Antilles preserved the technologies and methods of

construction traditionally used by native Caribs. As indicated above by Lewis and the Bridenbaughs, these were borrowed on some islands by the first European settlers.

> Many aboriginal cultural features (food, crops, medicinal plants, agricultural techniques, plant and place names, and architectural and craft practices) were transferred to Europe or interwoven with European elements in the islands. Though later migrations swamped aboriginal stocks, the Indian ancestry of modern populations, especially in the Hispanic Caribbean, is still apparent, and the native cultures contributed richly to the Caribbean synthesis (Mintz 1968: 308).

This synthesis or developing process continued on every island with varying degrees of European influence until, by 1700, a basic form had been established (fig. 5d). Edwards describes this basic form as:

> The raising of the Anglo-Caribbean cottage off the ground, fitting it with wooden shutters and large windows protected by the characteristic three baton shutter, and planning its orientation with perspect to the prevailing wind direction all

> represent forms of reinterpretation, which resulted in a distinctly West Indian cottage (1983: 319).

This cottage continued to develop throughout the eighteenth century. However, it seems that not everyone adopted this form. In 1833, Sir James Alexander, after traveling in the tropics, deplored the use of building types imported from colder regions, and recommended a structure similar to the one described by Edwards, and more suited to the area. "Englishmen abroad," he wrote, "suffer continual inconvenience, great loss of property, and life itself prematurely because they will not study and accommodate to the peculiarities of foreign climes" (Alexander 1833: 166). After citing a hurricane which struck Barbados in 1831, and regretting the misfortune of the inhabitants, he promoted what he referred to as the "oriental plan". This plan was more widely used by colonists other than Englishmen, he lamented; especially noted were Spanish colonists' dwellings. In Port-of-Spain he remarked on:

> ....the substantial air of Spanish houses, so different from the wooden buildings usual in British colonies. Our countrymen visit tropical climes only to accumulate wealth, and return to

> Old England; whereas foreigners expatriate themselves entirely and build for their descendants....(Alexander 1833: 198).

He deplored further the use of Old World construction methods and plans in a tropical climate and suggested that in the future the British should construct buildings based on those observed in the east. These structures generally include a verandah, flat roofs and many openings in the walls, whether doors or windows or rows of jealousies for air circulation:

> Whenever a barrack is without a verandah, especially on the windward aspect, it should have both jealousies (open blinds) and window shutters; the former alone being insufficient in stormy weather to prevent the rain from beating in...; while on the contrary, when the latter are used singly, although protection from the rain, they are in every slight shower obliged to be closed, when they exclude air altogether. In blowing weather, when open they also admit so strong a current of air that the men are liable to catch cold.... By having both jealousies and shutters...a barrack may be preserved dry under the heaviest of rains; while in moderate weather the men can exclude the wet and at the same time

> admit sufficient air... However when the position of the barrack will allow it, verandahs are doubtless the most desirable, as they exclude the overpowering heat of the tropical sun...they also prevent accumulation of dust and dirt (Alexander 1833: 257).

While the English settlers were slowly adapting their traditional construction methods, the Spanish, having had longer experience in the Caribbean area, were building houses derived from local models, and more adapted to the climate. These were noted and remarked upon by several visitors. Generally these were described as "....bungalows constructed of wood and plaster, with tile floors, shuttered windows, tile or thatched roofs, and opening from the street into interior courtyards." (Dunn 1972: 291).

An important influence on the development of vernacular dwellings in the region was the rapid deforestation of many islands for agriculture. As mentioned above, island residents became dependent on outside sources for wood products of any kind. Along with the importation of lumber from North America came the next influence on house forms in the Caribbean. The development of the balloon frame by George Snow, in Chicago in 1832, made constructing a home in the islands a more inexpensive and simpler task.

The balloon frame was constructed using milled lumber of a standard size and wire nails, rather than mortise and tenon joints (fig. 5c). Using the traditional box-frame method, a four cornered shell was built with large, square timbers which were mortise and tenoned together. This shell was filled by smaller uprights to which weatherboarding or other walling materials were attached. A structure with more than one story would have taller corner posts with girt floor beams mortised in at the first floor level (fig. 5b). Braces were placed from corner posts to sill and wall plates. Studs served mainly as filler to hold sheathing or wall fill:

> ...traditional frames had sills of large timbers fitted together with mortise and tenon joints, in turn, the sills were mortised for joists and studs...a girt, a heavy timber at each floor level along the sides and ends. This timber frame was mortised and tenoned into the corner posts (Sprague 1983: 39-40).

Balloon frames did not have these girt beams at the first floor level; the studs continued from sill to wall plate on multi-story structures without interruption (fig. 5c). Floor joists at the first floor level were attached to these studs by means of a ledger board or ribbon attached to the inside of the studs (fig. 5c). Diagonal bracing was

still sometimes used at the corners. The defining feature of a balloon frame was that studs, sills, joists and rafters continued uninterrupted around the perimeter of the building (fig. 5c). The use of large timber frames was eliminated. In a later adaptation of the frame, Snow reverted to the use of mortise and tenon joints at sill and stud or joist joints (Sprague 1983: 35-43).

During the early twentieth century this structure style was further developed by modification of the frame so that only one story was constructed at a time. this modified form became known as the "western" or "platform" frame (fig. 5e):

> In western or platform framing the studs and corner posts are always only one story high. Each floor consists of a platform made up of sills (called girts on the upper floors) with the ends of the joists carried by and toenailed into the side sills (or girts). The rough flooring is then nailed to the joists, and headers are spiked across the ends of the platform. The next story begins with a sole plate at the perimeter of the platform to which the studs of the next story are nailed (Sprague 1983: 45).

The development of the balloon frame and its modifications gave builders in the West Indies an easier, less expensive means of building a home. This housing

technique spread through the Caribbean with the lumber imported from North America. Even before the balloon frame was developed the quantities of wood brought to the islands was very large. For instance, Bryan Edwards reported in 1819 that in the years 1771, 1772 and 1773, 76,767,695 feet of boards and timber were shipped from the U.S. to the British West Indies. Along with this, 59,586,194 wood shingles, and 620 house frames were sent. From Canada, for the same time period, 232,000 feet of boards were sent along with 185,000 shingles (Edwards 1819: 487). After the development of the balloon frame these numbers could only have increased.

John Lewis has traced the evolution of private vernacular dwellings from the native tapia through Spanish and French adaptations on Trinidad. The largest influence on this growth he concluded was the invention of the balloon frame:

> When the English acquired Trinidad at the turn of the Eighteenth century, the Americans were discovering the great potential of wood. It was cheap, and easy to transport. This was the beginning of a great period of mass prefabrication. The new method of producing nails cheaply and plentifully reduced the necessity of hand made joints. Nailing was sufficient to hold the pieces together. This led to the invention, in

> Chicago, of the light timber unit called the balloon frame because of its lightness in weight (Lewis 1983: 137).

With its invention and subsequent standardization of materials, Lewis claims, a "vigorous timber tradition" developed on Trinidad. Here there was a variety of structures from a basic, small rectangular modular dwelling, to elaborately decorated buildings referred to as "Queens of the Bands", after a carnival tradition (fig. 8). These have a basic two-story floorplan with ground and first floor galleries extending around three or four sides of the building. The framing in some, if not all, is cast iron. To this basic building, bargeboarding, trim, gingerbreading, and other forms of decoration have been added according to the tastes and wealth of the builder. Many of these have become very elaborate, and are an example of the ways in which each island community has developed its own style.

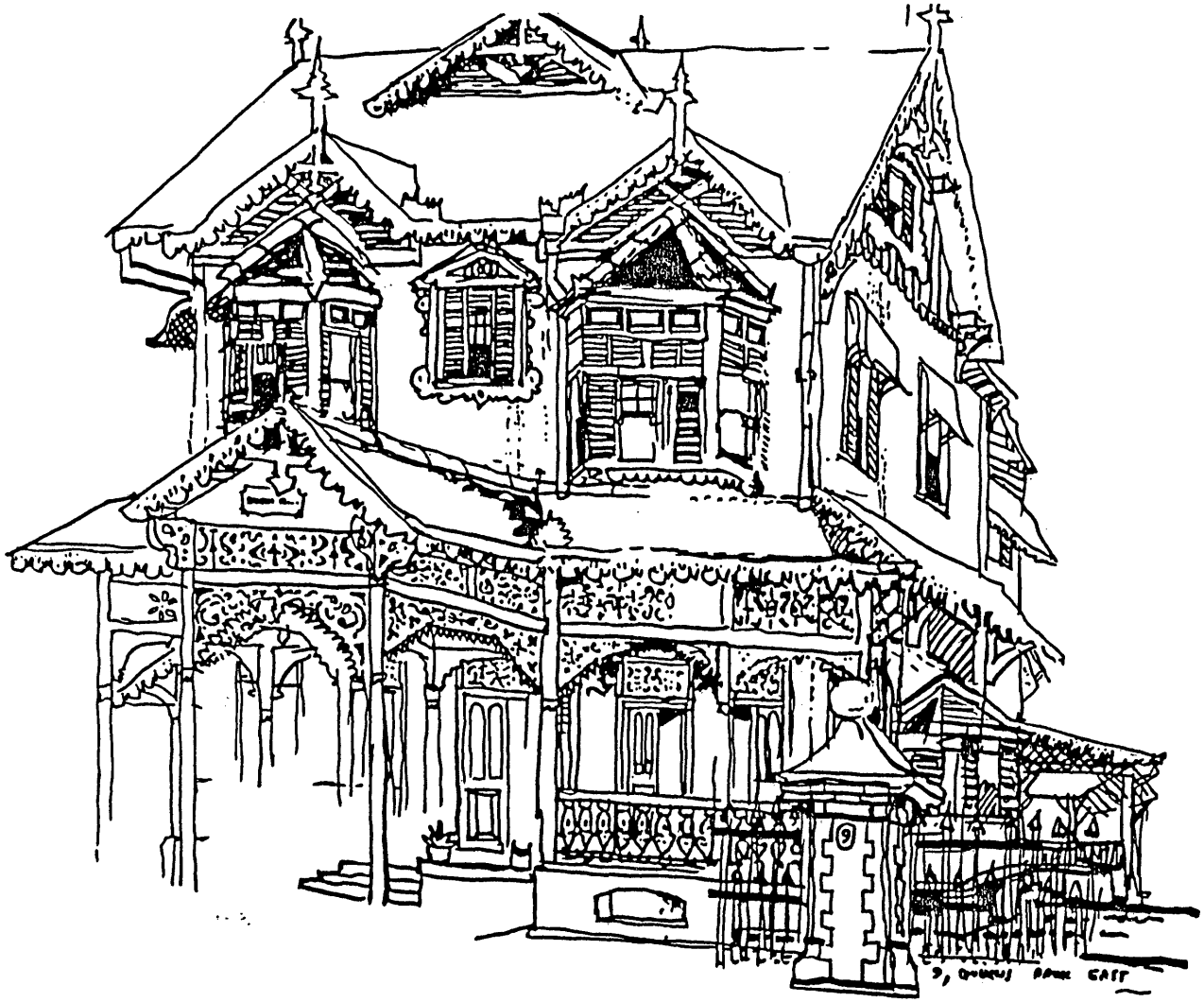


Figure 8. 'Queen' on Trinidad (Lewis 1983: 260)

CHAPTER 4

Vernacular Architectural Styles on Statia

With few exceptions, the majority of the structures standing in the Upper Town today were constructed during the twentieth century, especially in the era between 1920 and 1960. The Doncker House (fig. 3b), two of the group known as the 'Three Sisters' (fig. 3c), and a structure on the north edge of town called 'The Cottage' (fig. 3k) are the remaining eighteenth-century structures. All are two-story masonry buildings with first floor galleries, with the exception of The Cottage which is a single story with a full length verandah.

There are several nineteenth-century buildings. These are generally a single-story wood frame structure on a masonry foundation, along with a few two-story combination forms. Due to the carryover of materials and construction techniques, these are often indistinguishable from wood frame houses built in the twentieth century. This carryover is an area-wide phenomenon derived from availability of

materials and artisans, along with aesthetic taste. As Gosner (1982: 73) points out:

> The very nature of wooden buildings contributes to their reactionary character. Wood does not last long in the tropics, and repairs must be constantly undertaken; however, these are usually done piecemeal, so that only one shutter or one piece of railing is replaced at a time. Naturally, it is desirable for the new piece to match the older ones; thus, although a house may contain no piece of wood more than thirty years old, it faithfully maintains its original style of 100 years ago.

Until at least 1935, hinges, straps, hasps, and staples were made by local blacksmiths, and nails were ordered from off-island, usually St. Kitts where shutter hooks were also wrought (Rudolph Timber, personal communication). Therefore these are not so useful as indicators of relative date as they would be elsewhere. This fact, along with the carry-over of style described above, makes distinguishing nineteenth- from twentieth-century buildings very difficult.

Early twentieth-century houses on Statia were constructed from materials brought from Canada through St. Kitts; shutters for doors and windows were made on the

island. Generally these dwellings were constructed modular style. An 18x9 foot rectangular building was put up; this was added to when there was need for expansion. These structures generally took two months to build when electric tools were not used; one month when they were. All lumber was imported unfinished; planing, beading and any other finishing work was done on site by local carpenters. The roughcut timber was planed and prepared, and the frame was constructed first on the ground so that all joints (mainly mortise and tenon) could be carved and fitted. The frame was disassembled and reconstructed on the foundation. To ensure proper reconstruction all joists, studs, and sills were marked; roman numerals were chiseled into each piece in the order in which they fit into the sill and wallplate (Walter Euston, personal communication).

This system of numbering the parts of the frame is reported for sixteenth-century English frame houses as described by Cave:

> All the main members were mortised and tenoned, or joined in other ways, while still on the ground, with loose pegs inserted to keep the timbers fixed in place. The joints were then numbered with a system normally based on Roman numerals....The framework was then taken to pieces and carted, often quite long distances to the site before

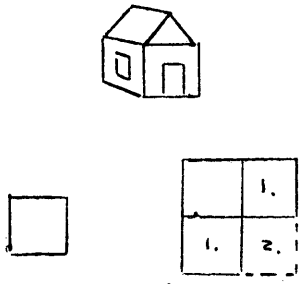
> being re-erected using permanent wooden pegs (1981: 64).

Diagonal braces were placed at all corners in both the early English houses and the more recent Statian frames.

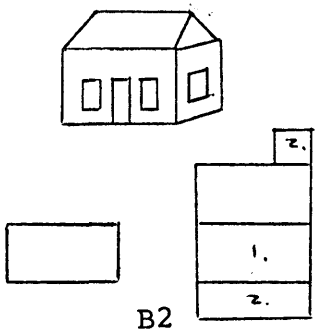
I have divided architectural styles on Statia into a number of broad classes based on observation of details they have in common with documented dwelling types on other islands. There are three broad types and several sub-types. Sub-types were determined by structural and layout differences within each type. The three major types are Traditional, Historic, and Modern. Nearly all of the existing buildings in the Upper Town fit into one or another of these categories (fig. 9).

Traditional buildings on Statia are those houses which were constructed using a wood frame, a basic rectangular floorplan, and construction techniques which are recorded as both traditional and universal in the region. The criteria include the use of wooden cladding, stone, brick or wood foundations, as well as the kinds and combinations of door and window treatments (fig. 10,11,12).

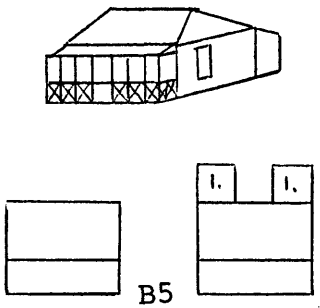
The category of Historic structures includes those buildings which are considered representative of historically documented houses which were plentiful on the island two to three hundred years ago. Generally these are two-story masonry buildings used for both domestic and



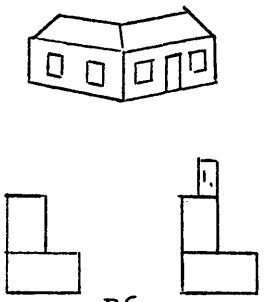
B1
Square Modular-type Wood Frame.
-enlargement-
addition of more sections (1), or addition of porch or verandah (2).



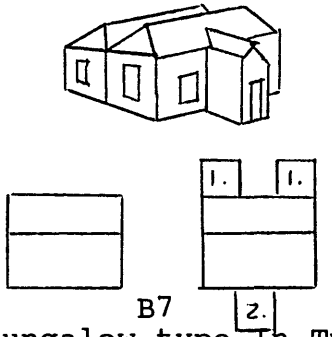
B2
Rectangular Wood Frame Module
-enlargement-
addition of more units (1) or addition of porch, verandah, or shed (2)



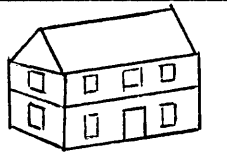
B5
Bungalow-type Wood Frame With Verandah
-enlargement-
addition of sheds or small units at the rear (1).

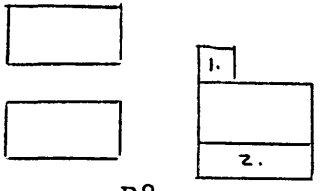


B6
L-Plan Wood Frame
-enlargement-
addition of sheds or small units at rear (1).

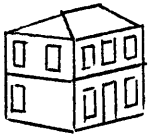


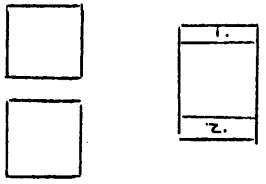
B7
Bungalow-type In Two Sections
-enlargement-
addition of sheds or smaller units at rear (1)





B8
Two-story Masonry And Wood Frame
-enlargement-
shed-type additions at rear.

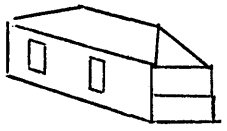


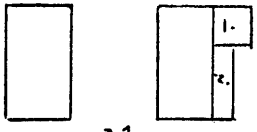


B9
Two-story Wood Frame
-enlargement-
addition of sheds or smaller units

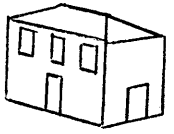
B3
Modified Square Modular Type
same as B1 with exterior shell of modern materials

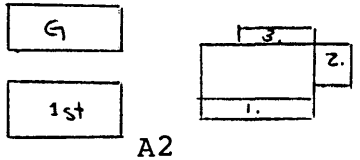
B4
Modified Rectangular Module-type
same as B2 with exterior shell of modern materials





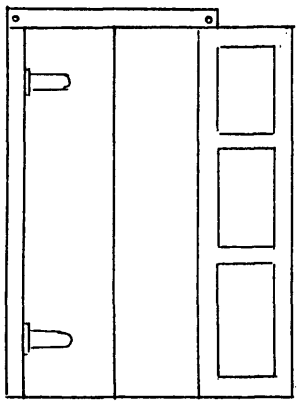
A1
Single Story Masonry
-enlargement-
addition of sheds (1) or verandah (2).



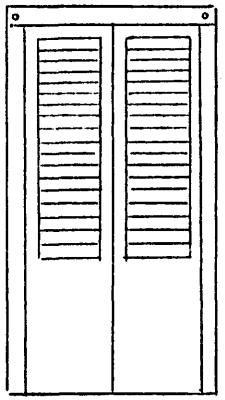


A2
Two-Story Masonry
-enlargement-
addition of sheds (2), verandah or smaller units

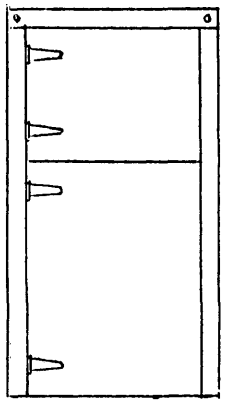
Figure 9. House Types



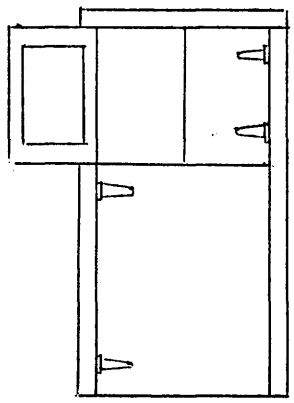
a.
solid
panel
shutter



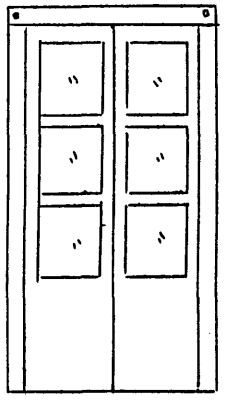
b.
wood
louver
shutter



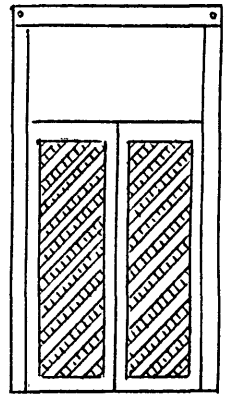
c.
Dutch
or half



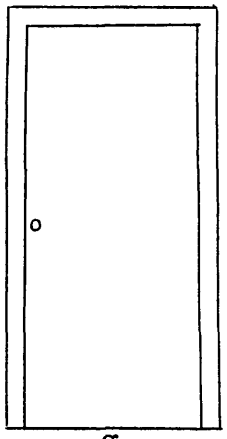
d.
half door
with top
shutters



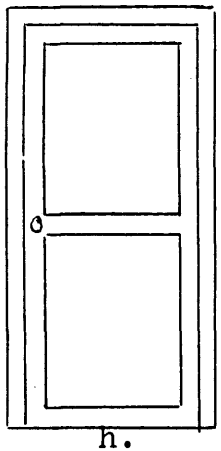
e.
casement



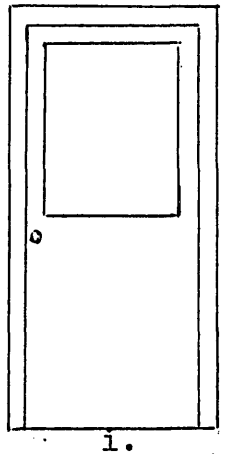
f.
3/4 lattice
shutter



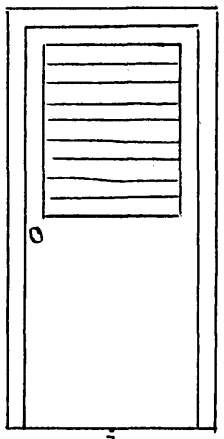
g.
modern solid



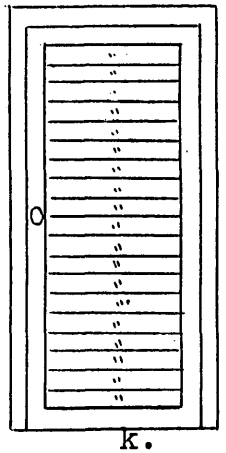
h.
modern panel



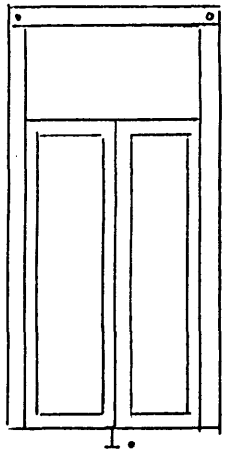
i.
modern 1/2
glass panel



j.
modern 1/2
wood
louver

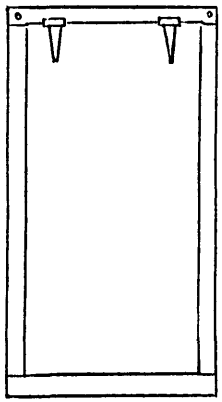


k.
modern glass
louver

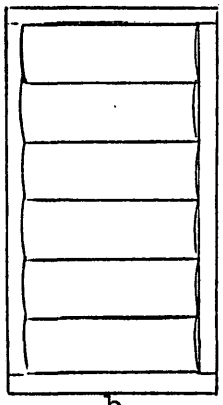


l.
3/4 solid
panel
shutter

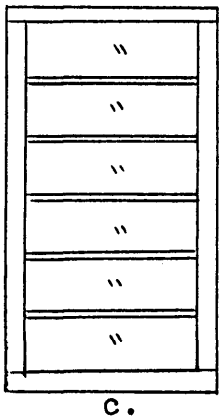
Figure 10. Door Treatment



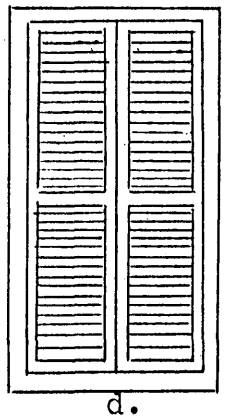
a.
top hinged
solid shutter



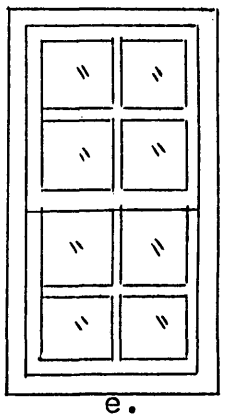
b.
aluminum
louver



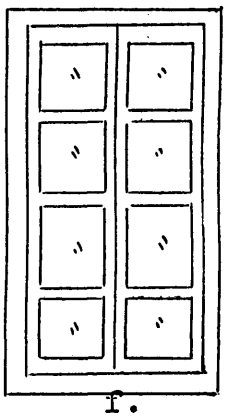
c.
glass louver



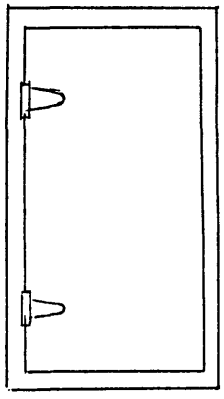
d.
wood louver



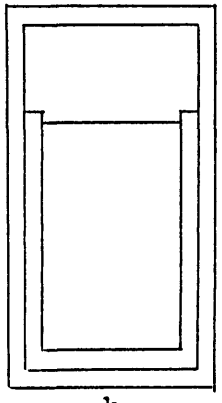
e.
double hung
sash



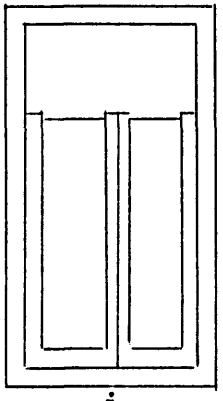
f.
casement



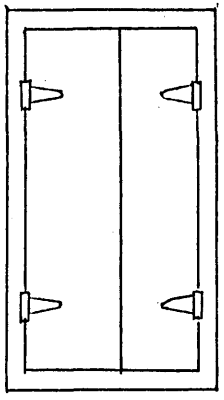
g.
side hinged
solid shutter

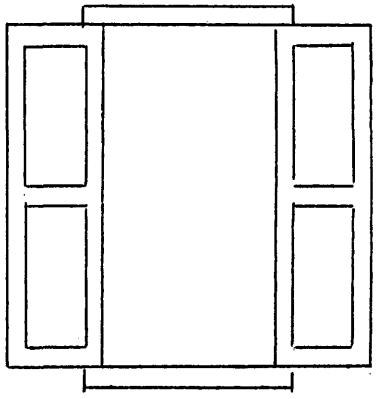


h.
3/4 solid
panel



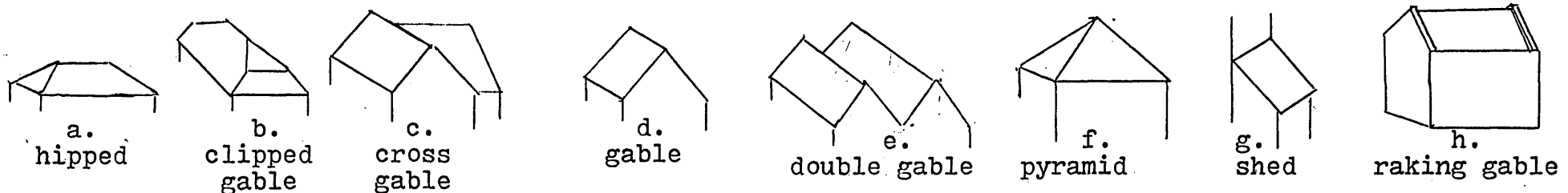
i.
3/4 lattice
panel



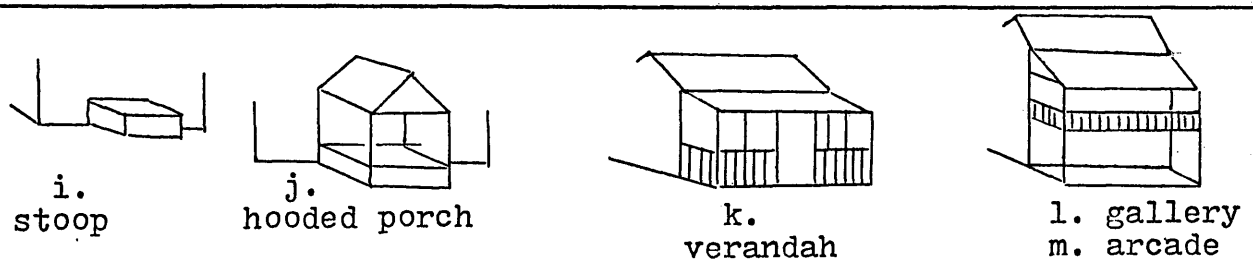


j.
solid panel shutter

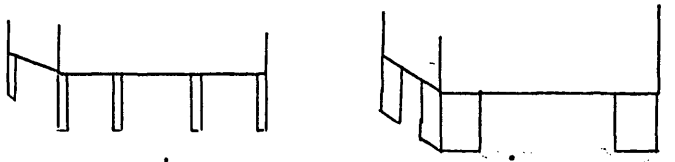
Figure 11. Window Treatment

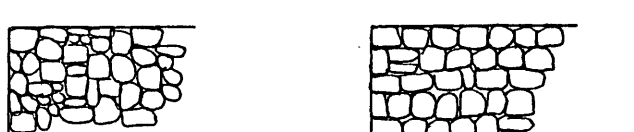


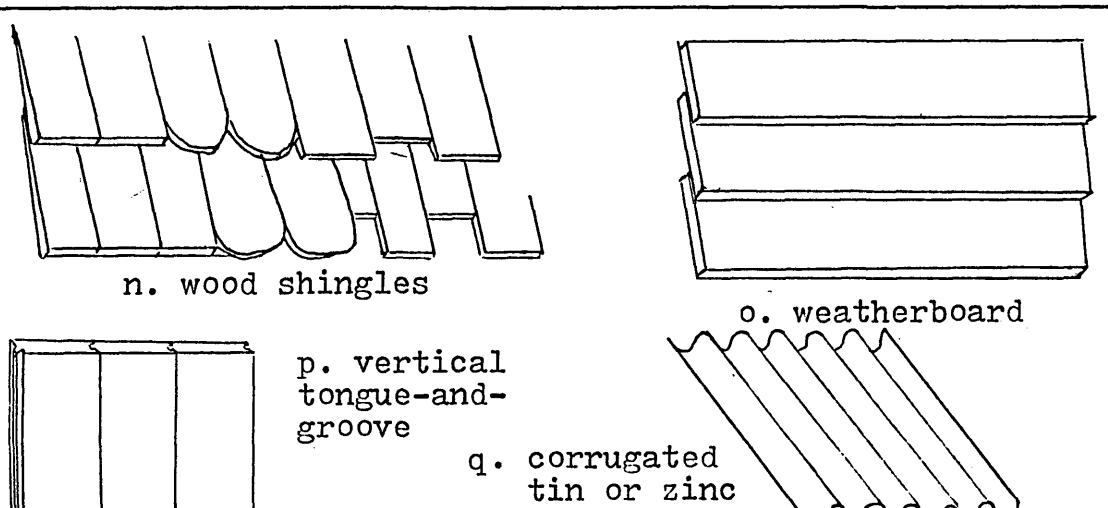
ROOF TYPES



FOUNDATION TYPES







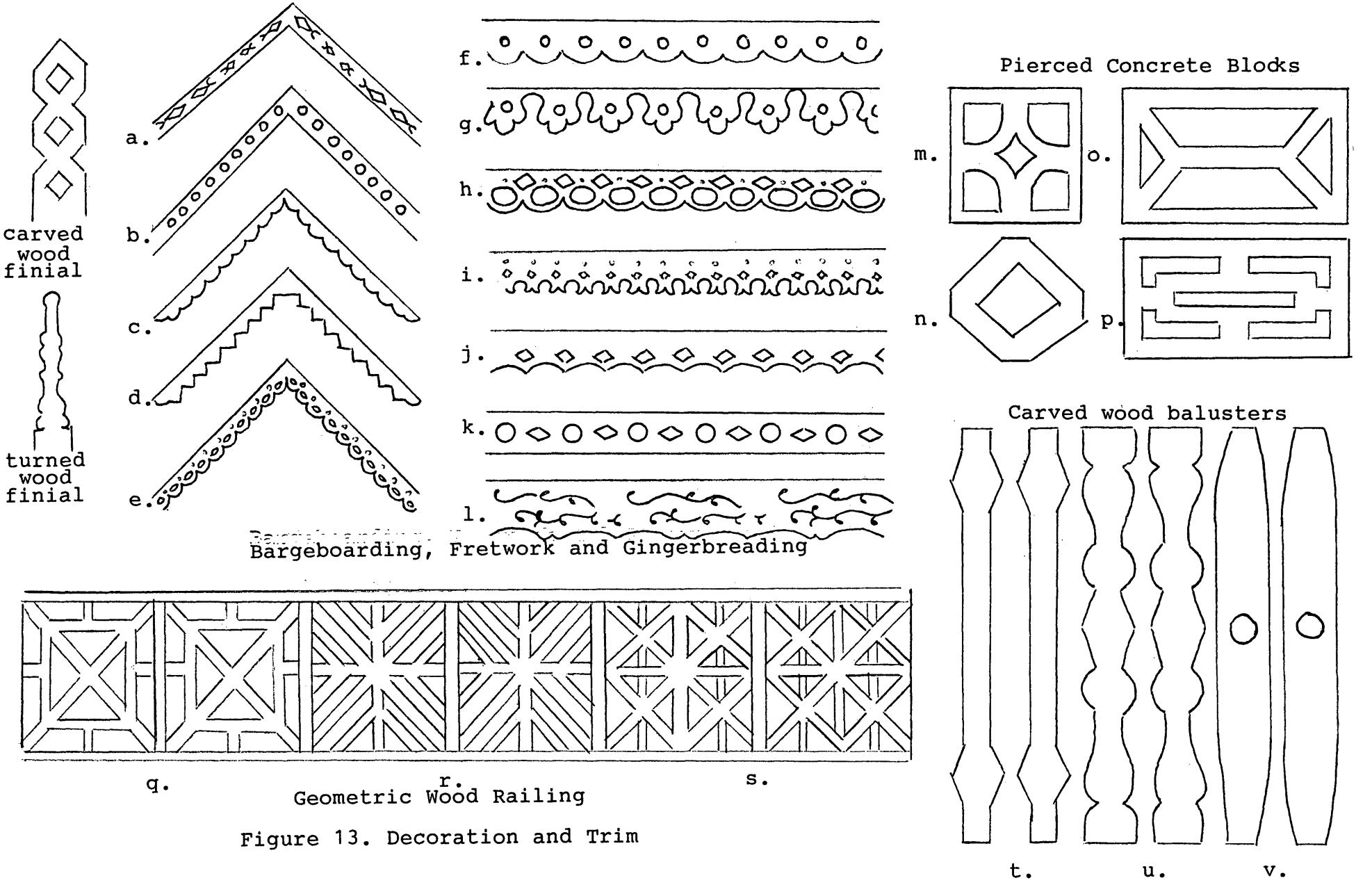
CLADDING

commercial purposes. Few of this type remain, although drawings and paintings from the eighteenth and nineteenth centuries show that there were many of them in the Lower Town.

Modern structures include all those constructed in the twentieth century of modern materials. These materials include cinder blocks, cement and plywood. Layout and floorplans of these houses differ from those in Traditional or Historic buildings, as do some of the decorative materials used. This category will not be considered in this paper.

There are decorative and stylistic details which are widely used both on Statia and elsewhere in the area. These include jigsaw-cut bargeboarding or trim, wooden finials at gable peaks, and decorative balusters or railings around porches, balconies and verandahs (fig. 13). All of these details in various combinations are a main ingredient in the creation of a house which is unique.

Traditional decorations are generally of wood, jigsaw-cut trim becoming popular in the middle of the nineteenth century. On some islands, especially those with a strong French influence, these detailings were more often of wrought iron. More recently, there has been an increase in the use of molded cement or concrete as material for railings, replacing carved or cut wooden balusters.



Bargeboarding, Fretwork and Gingerbreading

Geometric Wood Railing

Figure 13. Decoration and Trim

An example has been given for each type of structure. This includes a description of the materials, construction, floorplan, decorative detailing, door and window treatments, and a brief history of the building where that is available. There is also a front and a side elevation drawing for each example, along with three-quarter drawings and layouts.

Type A

Historic Masonry Structures

These are buildings which were built of either brick or stone. As mentioned above, there are very few of these in the Upper Town. Only six have been identified, and one of these is a ruin. Original sections of four of these were built in the eighteenth century; two are nineteenth-century buildings, all but one are two-story structures. This type has been divided into two sub-types based solely on the number of floors: A1 refers to the single-story buildings, and A2 encompasses the two story houses.

A1

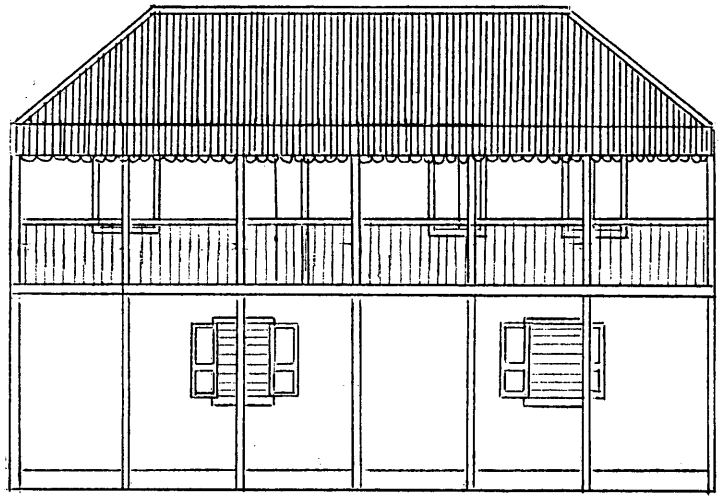
A structure known as 'The Cottage' is the sole one-story eighteenth-century masonry building in the Upper Town. This structure has not yet been recorded, and will not be included in this paper.

A2

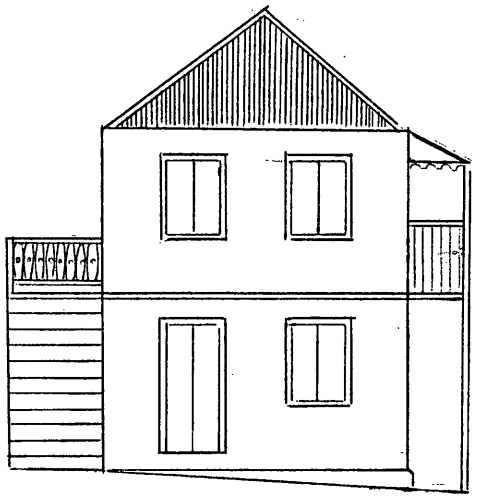
There are few of the historic masonry two-story structures remaining in the Upper Town. They include the former Judson Library; one house in a group referred to as 'the three sisters', now a private residence; and a more recent structure built of stone in the nineteenth century.

At the center of town, adjacent to the fort is the former Judson Library (fig. 14). The structure, which measures 16x37 feet, has a cut, coursed stone foundation (fig. 12v). Both ground and first floor are of yellow brick, and partial repairs have been done in stone; the wall depth is 1.6 feet. The east wall has one door and one window opening on the ground floor, and one door and three windows on the first floor. The south wall has two doors and two windows on the ground floor and one door and three windows on the first floor. On this side a stone stair parallel to the building and attached to the wall leads to a first-floor wooden gallery. This gallery is surrounded by a carved wood railing (fig. 13v) and has no covering roof. It reached along approximately half of the facade, beginning at the southwest corner.

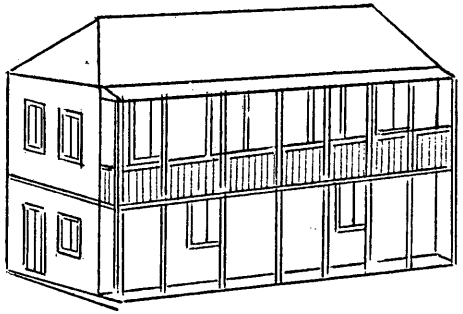
The west wall has no openings on the ground-floor and one window on the first-floor. The north wall has two windows on the ground-floor and one door and three windows on the first-floor. A first-floor wooden gallery is



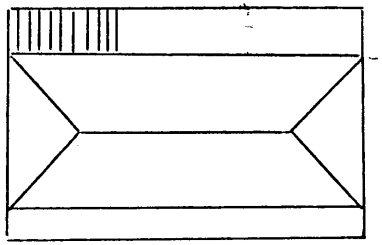
North Elevation
5'



East Elevation
5'



North/East View
3'



Plan
5'

Figure 14. Historic Two-story Brick

supported by chamfered wooden posts. There is no access to the gallery from the outside. This gallery has a tin-clad shed-type roof, wooden rail and carved wooden balusters (fig. 13t); it was recently constructed, replacing an earlier one.

The windows on the ground floor have modern glass louvers (fig. 11c) and solid panel wooden shutters (fig. 11j); the doors are solid panel wood shutters (fig. 10a). The first-floor doors and windows have only solid panel wooden shutters.

On the interior, the ground floor is divided widthwise into three roughly equal rooms. Openings between rooms are centered in wooden dividing walls which reach to the ceiling. the first floor is divided unequally into two rooms by a folding divider of carved and painted wood. Both the interior and the exterior of this house have recently been remodeled. Only the brick and stone shell is original. The hipped roof has recently been reclad with zinc.

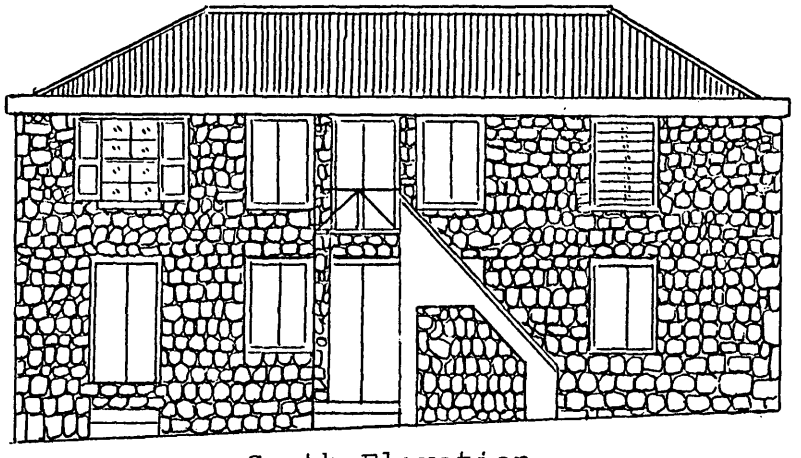
These rectangular masonry structures, either brick or stone, or a combination of both, were very common historically both in the Upper Town and the Lower Town. They were constructed as dwellings as well as warehouses. Several of these warehouses are still standing in the Lower Town.

Another two-story masonry building is located on Prinses Weg (fig. 3g) and was reported to have been built in

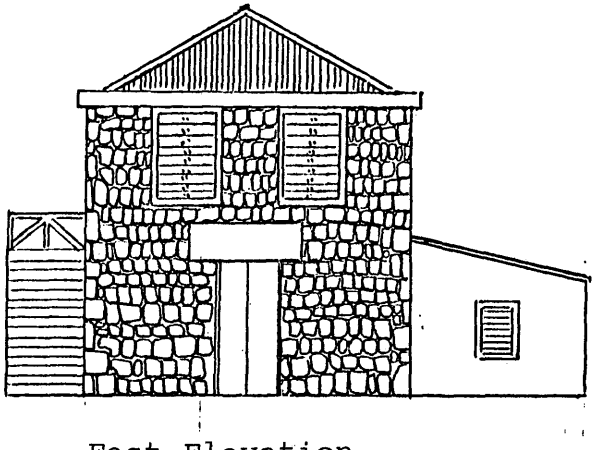
1896 (fig. 15). This house was constructed of coursed rubble. with a hipped, zinc-clad roof. It is included with the Historic buildings because, although built in the nineteenth century, it shows the same characteristics as the earlier brick buildings.

The foundation is coursed rubble (fig. 12u), as are both ground- and first-floor walls. All four corners have cut stone quoins, and there is a poured concrete cap on the walls which extends out about .5' from the walls. The south wall has two doors and two windows on the ground floor, each with each with solid panel shutters. There are are four windows and one central door on the first floor. The door has solid panel shutters and the windows have modern glass louvers. There is a concrete and stone stair parallel to and flush with the wall which leads to a wooden balcony at the center of the first floor wall. This balcony is supported by a stone pillar and surrounded by wood railing.

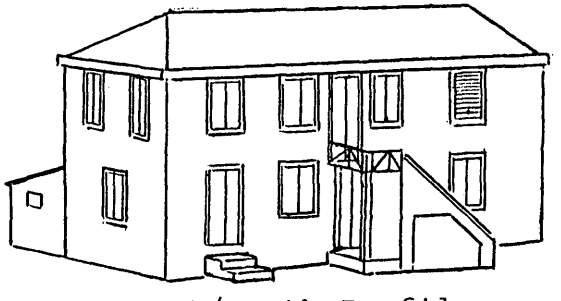
The east wall has a door on the ground floor with solid panel shutters, and two windows on the first floor with modern glass louvers. The north wall has two concrete and cinder block additions at ground floor level, one at each end, and one opening between with solid panel shutters. At the first-floor level there are four windows with glass louvers in all but the second from the far left. This opening has 4/4 double hung sash windows (fig. 11e). All but



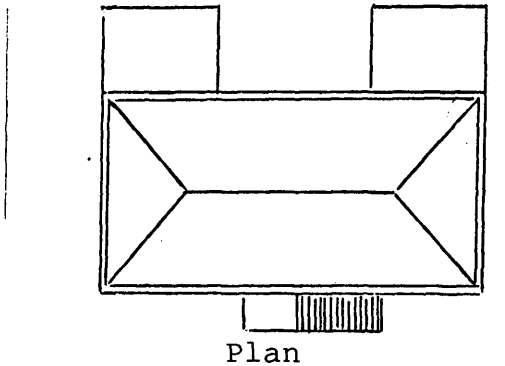
South Elevation
5'



East Elevation
5'



West/South Profile
3'



Plan
5'

Figure 15. Historic Two-story Stone

the easternmost window have solid panel shutters. On the west wall there is one window on the ground floor and two on the first floor, all have solid panel shutters. the ground-floor window has modern glass louvers, and the first-floor windows have 4/4 double hung sash windows.

The exterior rear additions are cinder block, the easternmost unplastered and unpainted with a single-slope shed roof, the westernmost plastered, with aluminum louvers on the windows (fig. 11b) and a single-slope shed roof. Neither addition extends to the second story.

Reportedly this building was constructed by Jakob Simon VonPutten at the turn of the century as a private dwelling. In 1959 it was a combination grocery, patent medicine shop, and nightclub. The grocery was called The Caribbean Cheap Shop. During the 1970s there was a barber shop upstairs, and in the late 1970s there was a tea room downstairs. Recently there was a barber shop upstairs and a restaurant downstairs Roland Lopes, personal communication).

Type B

Traditional Wood Frame Structures

The most obvious criterion for buildings in this category is that they be constructed of wood. This concerns the frame, and in most cases the sheathing (wall covering attached to the exterior of the frame), and the cladding (shingles, clapboards or other siding fastened to the

sheathing). Many of these were built in the twentieth century, but the materials and method were carried over from the nineteenth century.

There are nine sub-types in this category. They were determined mainly on the basis of layout differences. The basic rectangular plan described in Chapter 2 was used in most cases, but the separate sections were put together in a variety of ways. This resulted in several distinctive layouts (fig. 9).

Several sub-types were created in order to allow for further development of this category, although none of the buildings which would fit these sub-types have been either identified or studied. These are B1, B3, and B4. Type B1 is a house based on a square module. These units are about nine feet square, and several of them are put together to form a house. Square modules are described by Berthelot and Gaume (1982: 22) in connection with their study of vernacular architecture which concentrated on the French islands. They suggest that, along with the rectangular module, this is one of the most universal and basic house forms in the Caribbean. During the survey done in 1988 several houses were identified which may have originated as square modules. For this reason this sub-type was included.

Types B3 and B4 were also included as a result of the 1988 survey. These cover houses which originally were

constructed of wood with a square or rectangular plan, but whose exteriors have been altered. Concrete or cement 'skins' have been put over the outside of the building, leaving the original wood frame, and sometimes the sheathing, intact on the interior. type B3 is the square modified building, and B4 is the rectangular modified structure. The survey indicated that there are several houses in the Upper Town that may be of this type, but these have not yet been studied or recorded.

B2

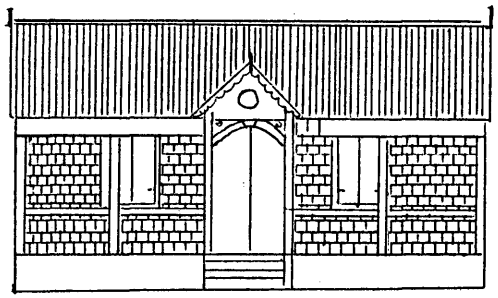
Rectangular Module-type

This is the smallest version of the traditional house. As described by Berthelot and Gaume (1982: 22) they are generally small, rectangular structures to which additions are made when necessary. These buildings are enlarged by the addition of another section of building, a verandah or porch, or shed-type additions at the back (fig. 9). Those observed on Statia range from 16x9 to 24x14, slightly larger than those described by Berthelot and Gaume. These buildings were a colonial phenomenon: a result of the need to import wood, the lack of space in urban settings, and the need to economize. The materials and construction in these dwellings are the same on Statia as for those described on neighboring islands including St. Maarten (VanAndel 1985), St. Kitts and Antigua (Gosner 1982).

An example of this type of house, located on Prinses Weg (fig. 3h), is 12.5x24.5 feet with a 4.5' verandah on the front. It is built on a foundation of coursed rubble ranging from one to two feet high. The verandah floor is of poured concrete with poured concrete stairs. There are cut stone stairs leading to each of the two back doors.

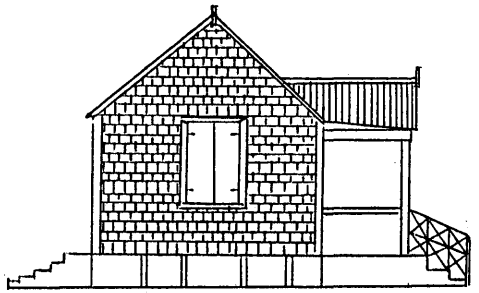
This is a single-story structure, as are most of this type (fig. 16). The building has a wood frame sheathed with horizontal boards and clad with wood shingles. On the south wall there is the above-mentioned verandah which extends the length of the structure. This verandah has a shed roof with a central gabled portion over the entrance. The presence of the gable indicated that there was a hooded porch in place before the verandah was added. This gable is filled with some elaborately carved decoration, along with jigsaw trim at the gable ends (fig. 13g).

This front facade has two windows and a central door; all have 4/4 double hung sash windows with solid panel wood shutters. The east wall has one window with the same combination of treatments as is found on the front. On the north wall there are two doors and a central window. Here there are cut stone stairs leading to each of the two doors, which are located one at each end of the structure. There is one window in the west wall, along with an opening in the foundation for access to the space beneath the floor of the



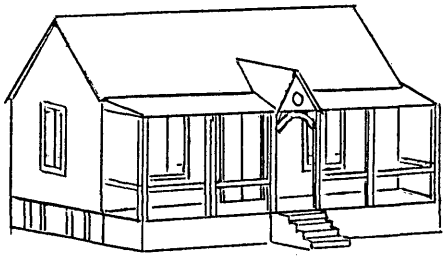
South Elevation

5'



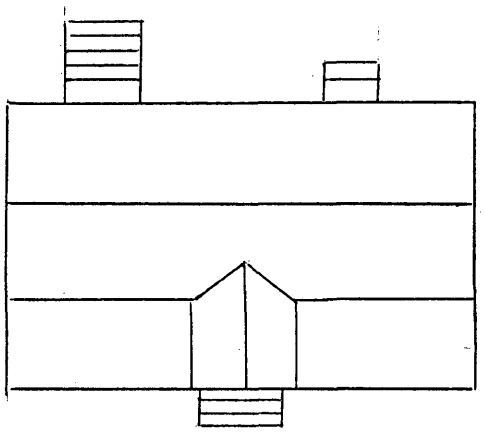
West Elevation

5'



West/South Profile

3'



Plan

5'

Figure 16. Rectangular Module-style

house. Both the north and west walls have 4/4 double hung sash windows, and solid panel wooden shutters on doors and windows. The rear doors have 3/4 lattice panels (fig. 10f) as well as solid panel shutters. The roof is a zinc clad gable with a shed roof over the verandah. All gable ends have decorative bargeboarding (fig. 13d).

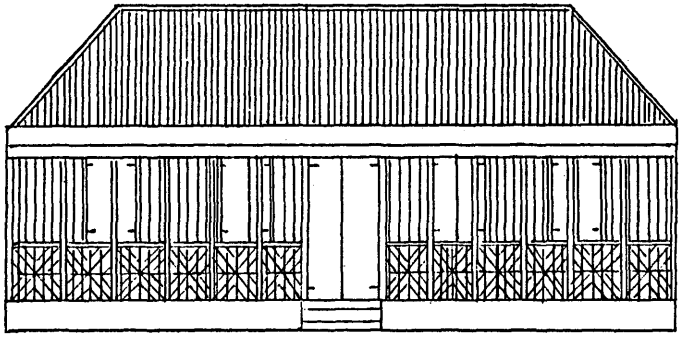
The interior is divided roughly in half by a wooden dividing wall which reaches only to the wallplate. Above the wallplate the space is filled with open latticework. There is one door in the wall, connecting the two rooms, and located toward the rear of the building. As in most of the traditional dwellings, there is no ceiling. The interior space is open to the rafters.

B5

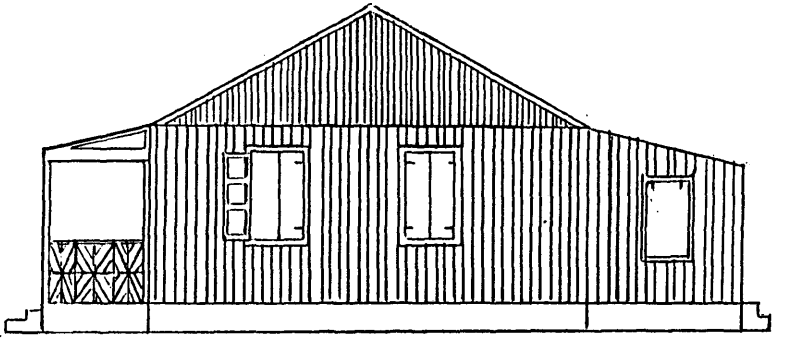
Bungalow-style With Verandah

These are larger rectangular frame swellings with a full-length verandah across the front. Generally they are raised off the ground two to three feet on a masonry foundation (fig. 12). Rather than adding another section of framing onto the structure, these are normally enlarged by adding smaller sheds at the back.

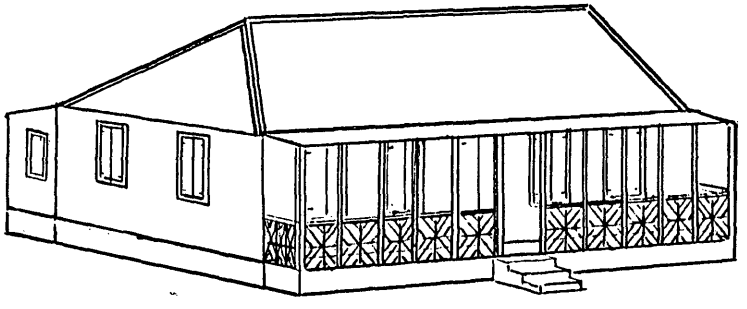
A structure representative of this type is located near the center of the Upper Town on Paramira Weg (fig. 3a). It has a full length verandah and two shed-type additions on the rear (fig. 17).



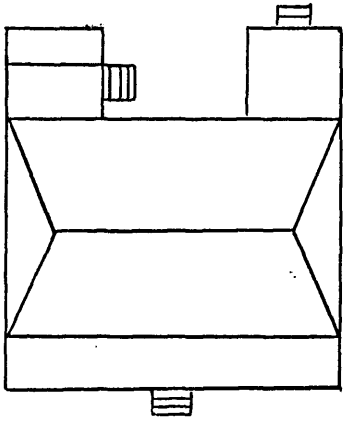
South Elevation
5'



East Elevation
5'



West/South Elevation
3'



Plan

Figure 17. Bungalow-style With Verandah

The foundation is coursed rubble and raises the frame off the ground about two feet. The traditional framing is covered with horizontal board sheathing and vertical tongue and groove siding (fig. 12p), except on the rear wall. Here the sheathing is covered with wood shingles.

The south wall has four windows and a central door, all with solid panel wooden shutters, and a full length verandah with geometric wood railings (fig. 13r) and fretwork around the roof (fig. 13g). The east wall has three windows, one of which is in the shed addition. Those in the main structure have solid panel shutters. The one in the addition has a top hinged solid shutter (fig. 11a).

On the north wall, along with an addition at each end, there is a central door with both solid panel shutters and wood louver shutters (fig. 10b). Both additions have the same frame, sheathing and siding as the main structure, and are built on poured concrete foundations. The west wall has two windows on the main structure , both with solid panel shutters. The roof is hipped over the main structure and there are shed roofs on the additions. The roof is corrugated zinc on all portions (fig. 12q).

There is a half-louvered modern door (fig. 10j) leading from the main structure into the easternmost addition, and a 3/4 lattice shutter leading into the other. The main portion of the house was divided roughly into thirds widthwise, with

two doors leading through each partition into the end rooms (hall-and-parlor plan). There is no interior ceiling. The area is open to the rafters, and the partitions do not extent to the roof.

The main portion of this building is the same as those basic structures found throughout the Caribbean. It is a larger version of modular-type dwellings, although this type were generally enlarged by other means than adding another section.

Buildings of this type are described by Van Andel in Phillipsburg, St. Maarten, and observed on St. Kitts, Nevis and Saba. Prehaps this is an intermediate form, between the smaller B2 and the larger B6 and B7 models.

B6

L-Plan

This type is fairly straightforward. Two rectangular sections are built in an L-shape. They are either built at the same time or one section is built later than the other. The interior of the L is always away from the street. Sometimes this will have further additions (fig. 9) in the form of sheds or smaller units. Although there are no records, these seem to have been a popular eighteenth-century form. One indication of this is that

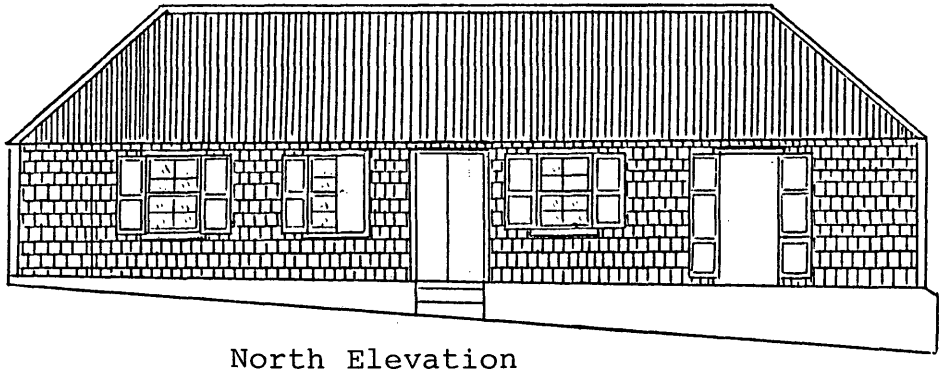
several of the type are reported as standing at the turn of the century, whereas many of the other styles were built after 1920.

The L-plan dwelling that stands on Fort Oranje Street (fig. 3f) is more than likely a nineteenth century structure. The deed in the possession of the present owners is dated 1913, so the building is at least that old, and was standing when the lot was purchased.

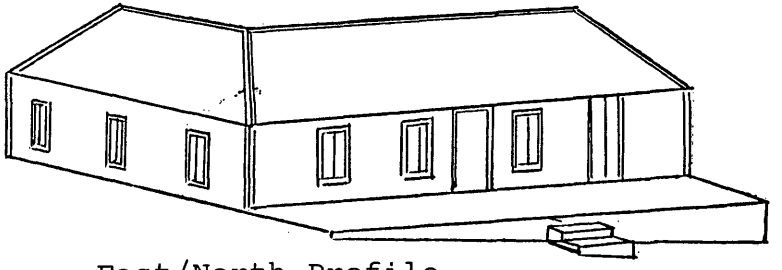
This one-story wood frame structure (fig. 18) stands on a foundation of coursed rubble. It is sheathed with horizontal boards and clad with wood shingles. On the north wall there are three windows and two doors. All have solid panel wood shutters. The windows have 4/4 double hung sash windows, and the main entrance has casement doors in addition to the shutters.

On the west wall there is one window also with 4/4 double hung sash windows and solid panel shutters. The south wall has two doors and two windows. The windows have the same treatment as do those on the other walls. The doors have a combination of solid panel shutters and 3/4 solid panels (fig. 10L).

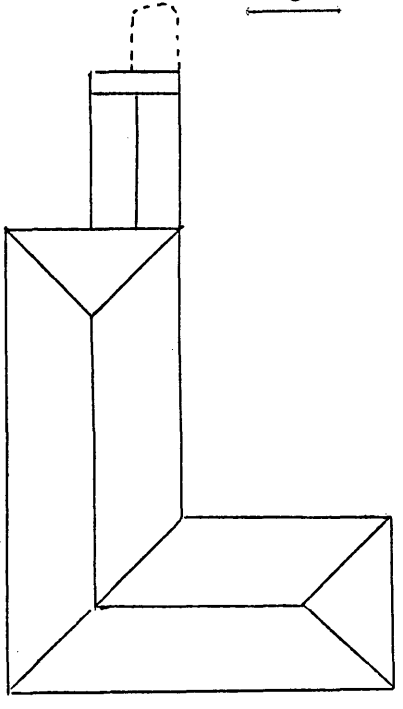
On the west wall of the ell there are two doors and one window, all have solid panel wooden shutters. The window is a 4/4 double hung sash, and the southernmost door has 3/4 lattice shutters in addition to the solid panel shutters.



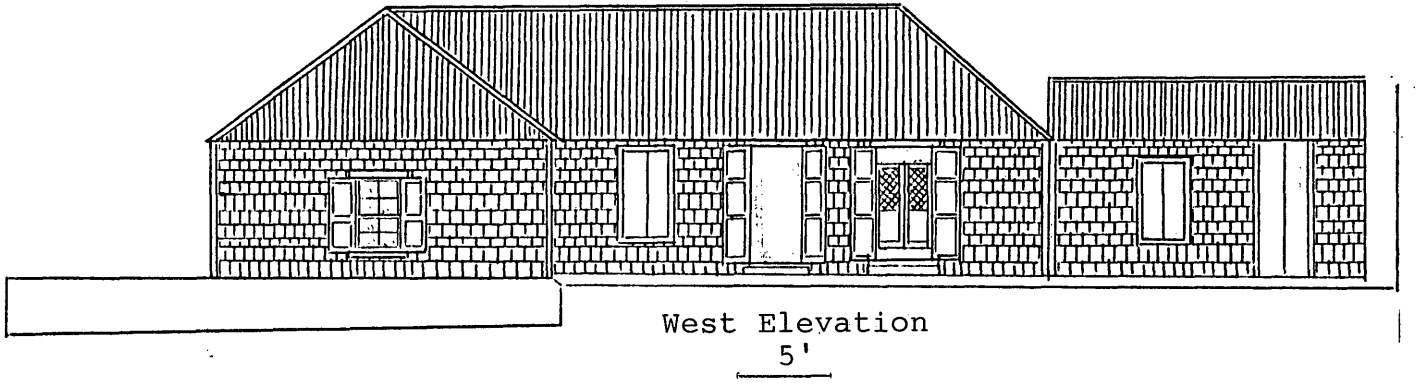
North Elevation
5'



East/North Profile
5'



Plan 5'



West Elevation
5'

Figure 18. L-Plan

There is an addition to this building in the form of a small, rectangular unit attached to the southern end of the ell. On this addition, which is also a wood frame, horizontal board sheathed, and wood shingle clad structure, there are two doors and two windows. One window and one door are on the west side and one door and one window are on the east side. All have solid panel shutters, except the door on the east side which is a half door (fig. 10c). The south wall of this small unit is of stone with no openings, but scars on the wall show where a domed oven has been removed.

The south wall of the ell has a door and a window, these have a half door and solid panel shutters, respectively. The east wall of the main structure has three windows with the same treatments as those on the north wall. The roof on the main building is a very high-pitched, zinc-clad hipped roof. The roof on the addition is a gable roof and is also corrugated zinc-clad.

Thee is a patio with red earthenware tiles on the north side of the building, between it and the street. There is also a tiled patio along the west side of the ell.

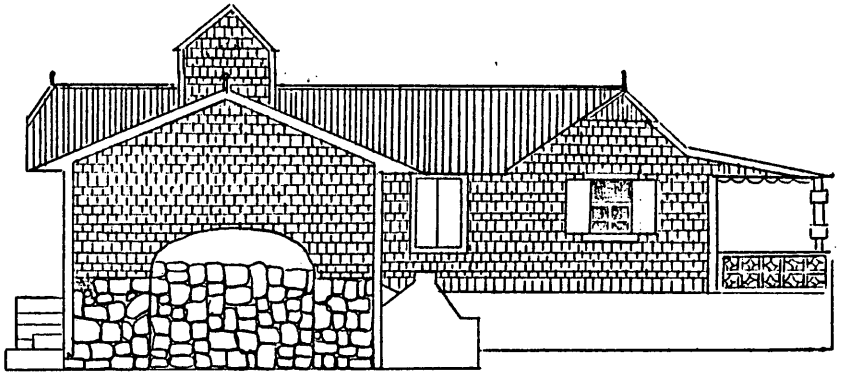
Several versions of this basic L-plan are scattered around the Upper Town . On Brede Weg (fig. 3e) there is another house, built in the twentieth century which shows how these buildings can become unique through additions and decoration. Apparently built in several episodes, the

building has a basic L-shape to which additions have been made (fig. 19). It is a single-story wood frame house on a coursed rubble foundation. The north-south portion of the ell seems to be the earliest section. On this part the west wall has three doors and one window. The center door has solid panel shutters in combination with 3/4 solid panel shutters. The other doors are half doors. The one has a half door with top shutters (fig. 10d). The window has solid panel wood shutters only. All three doors are at different levels, due to different building episodes. The easternmost is the highest, reached by a four-step concrete porch, and the westernmost is the lowest, having only a stone stoop.

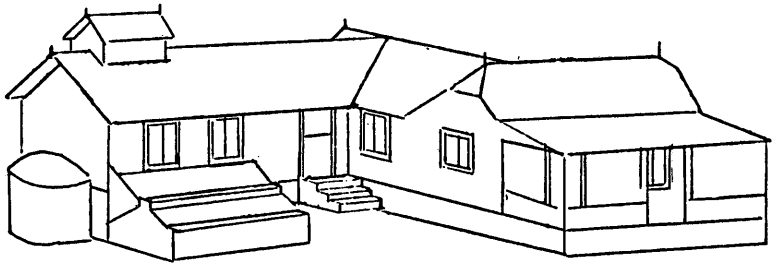
There is a clipped cross gable (fig, 12b,c) over the center door. The gable has pierced wooden fretwork (fig. 13L). A domed stone oven protrudes from the southern wall of this section; there are no openings on this wall. The gable here also has pierced fretwork, although a different pattern from that on the west side (fig. 13a).

The eastern wall has one door and two windows. the windows have solid panel wooden shutters and 3/4 solid wood panels (fig. 11h). The door is in the corner near the junction with the east-west portion of the house, and is a half door. On this end of the house there is a cupola over the southern end, extending approximately three feet above the roof peak. This cupola is gabled with finials at the

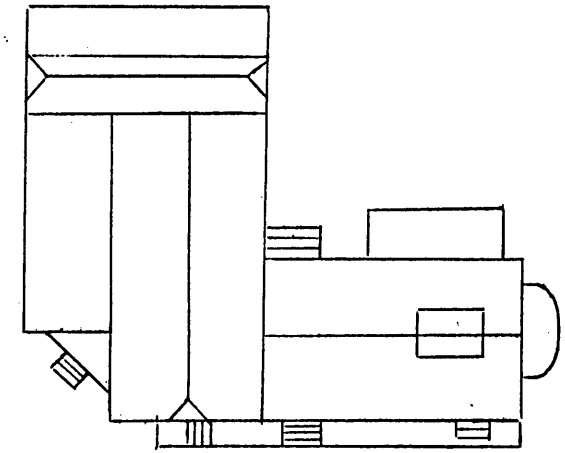
West Elevation
5'



South Elevation
5'



South/East Profile
5'



Plan
5'

Figure 19. L-Plan Modified

peaks. It does not have any openings, and is shingled on all four sides.

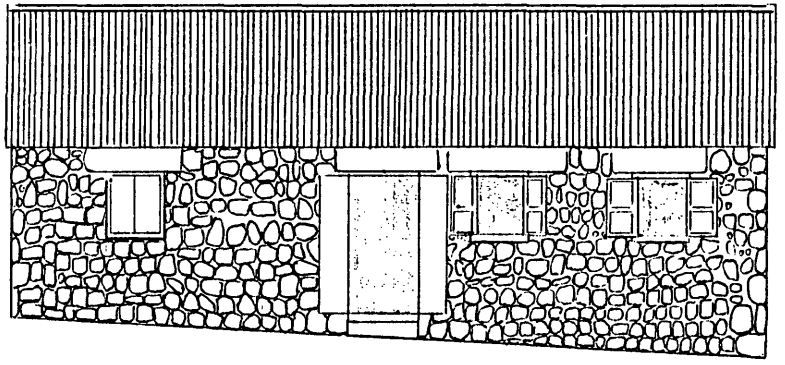
The east-west portion of the L-shape appears to be a later addition, in several episodes. The eastern end has become the main entrance. On the south wall there are two windows; both have solid panel shutters and 4/4 double hung sash windows. Over the easternmost there is a clipped cross gable. As on the other walls there is decorative fretwork in the gable (fig. 13L). A cinder block and concrete porch has been added at the east end. It has a poured concrete floor, pierced concrete block railings (fig. 13m), and a corrugated zinc-clad shed roof. The decorative fretwork continues from the gable around the porch roof. There is a door and a window on this wall. The door is modern half-glass (fig. 10i), and the window has a combination of 4/4 double hung sash windows and solid panel wooden shutters.

The north wall has two windows, both with the same combination of treatments as above. There is a clipped cross gable over the easternmost window, and the decorative trim continues from the porch along this gable. On the west end of the east-west portion there is a half door. This west wall connects with the north wall of the north-south portion to form a small nook. The north wall of the original section has a door and a window. The door has solid panel shutters, and the window has a top hinged solid panel shutter.

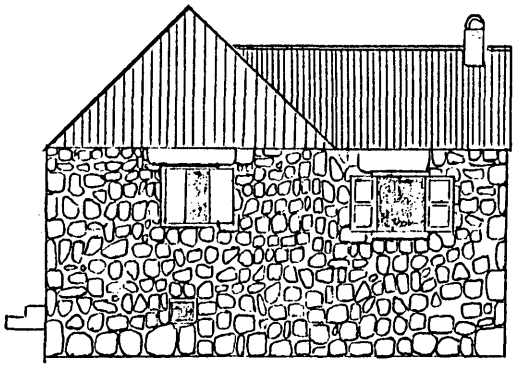
The roof is corrugated zinc-clad. All gable ends have either carved or turned finials, and all gable ends have fretwork and trim in several patterns.

The interior, as with all of the traditional wood frame houses has unclad studs and open rafters. It is divided into six rooms, two in the earlier portion, and four in the later. The kitchen, which is in the southern end is several feet lower than the rest of the house and is reached by a short flight of stone steps. The unusual woodwork, both inside and out, along with the relatively complex floorplan make this a unique structure.

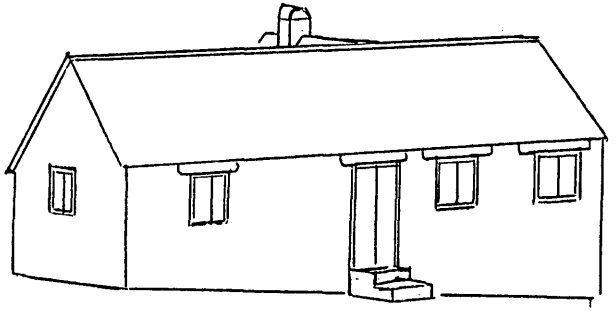
One exception to the rule has been included in this type. This building is located on Fort Oranje Street, next to the hospital (fig. 3i). It is a single-story stone house built in the early twentieth century with materials taken from earlier buildings (fig. 20). It has the same L-plan, based on two rectangles, as wood frame traditional houses, including the three room hall-and-parlor interior floor plan. The feature which distinguishes this structure from other traditional buildings is the materials. Foundation and walls are coursed rubble. with quoins at the corners. The north wall has one central door and three windows; all have solid panel wooden shutters. There are two windows to the right of the door and one to the left.



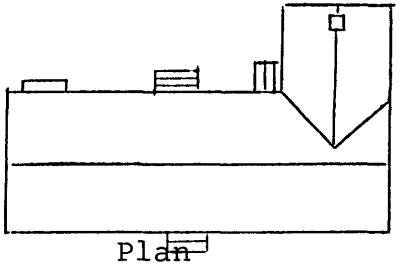
North Elevation
5'



West Elevation
5'



East/North Elevation
5'



Plan
5'

Figure 20. Stone Cottage

The west wall has two windows, one of which is in the ell; both have solid panel wooden shutters. There is a small, square opening near the ground, centered under the left window for access to the crawl space in the foundation. The upper portion of the wall, in the gable, is clad with corrugated zinc. On the end wall of the ell there are no openings. The presence of the brick chimney at this end indicates that this ell is the kitchen area. The east wall of the ell has a door in the corner where it meets the main section of the house. This is a dutch or half door, and there is a three-step stone stoop leading to it. The south wall of the main portion of the house has two door and two window openings. The doors are on either end, with the windows between. All have solid panel wooden shutters. The westernmost door, nearest the ell, is reached by means of a three-step stone stoop, the other has a single-step stone stoop. On the east wall there is a single window opening, centered in the wall. This also has solid panel shutters. The top section of the wall, in the gable, is clad with corrugated zinc, as is the opposite gable.

The roof is a corrugated zinc-clad cross gable (fig. 12c). A small, square brick and stone chimney protrudes from the roof at the south end of the ell, where the kitchen is located. There is no trim on this house.

Reportedly this house was built in the early twentieth century with local volcanic stone taken from the Princess Estate sugar boiling house, which is located just outside of town. The use of local materials, along with traditional door and window treatments and layout are reasons why this building is included in this type. (Likewise, the nineteenth-century stone house built by Jakob VonPutten was included in the eighteenth-century structures.)

In 1988 the building was partially remodeled for use as a home for the aged, in association with the hospital. The original pegged door and window sills, as well as the doors and windows were removed. The door and window openings were filled with stonework, and new openings were made. The walls were capped with cement, a new roof was put on, and the interior plan was changed.

B7

Bungalow-type in Two Sections

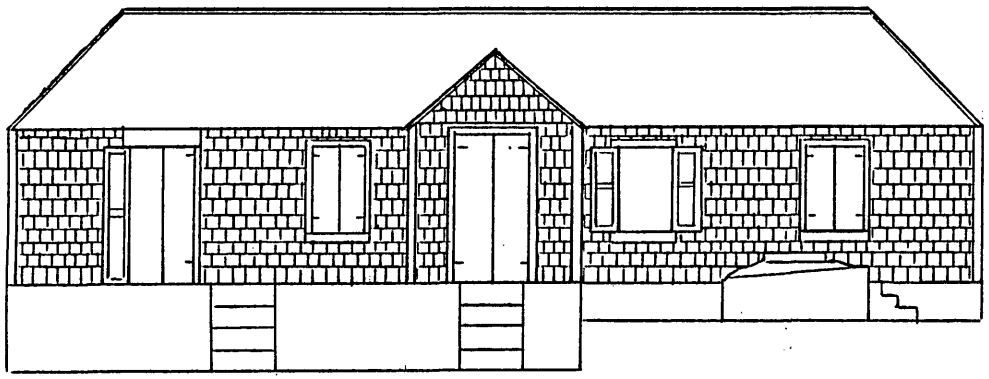
These are the largest wood frame structures in the Upper Town, averaging 51x30. They are built in two or more long, narrow sections (fig. 9). Usually they have an enclosed hooded porch (fig. 12j) on the front, rather than a verandah. Enlargements may be shed-type, or smaller units, as well as the addition of more sections.

On of these structures is located on Prinses Weg, next to the hospital (fig. 3j), and for the last few years has

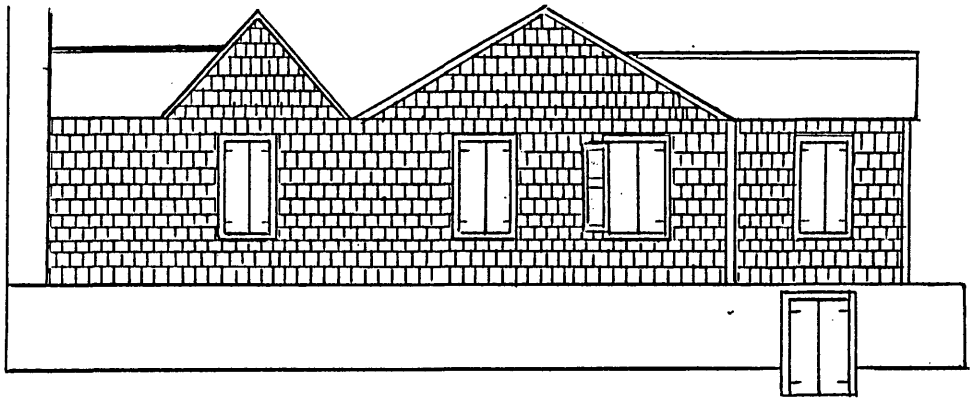
been used as the William and Mary Field School lab (fig. 21). Built in the mid-nineteenth century, the foundation is coursed rubble, raising the structure approximately four feet off the ground. There is a cellar under the front section.

The house is one story, built in at least two sections. There are two small additions at the back, at right angles to the main structure. One of these was the kitchen. The structure is a horizontal board sheathed and shingle clad wood frame, with carved wooden quoins at the corners. On the south wall there is an enclosed hooded porch serving as the main entrance. This porch has one window each in the east and west walls. Each has has 4/4 double hung sash windows and solid panel wooden shutters. The entrance has solid panel shutters and casement doors (fig. 10e). There is another door and a window to the left of the entrance, and two windows to the right. All have solid panel shutters. Two of the windows have 6/6 double hung sash windows. The opening furthest to the right has casement windows (fig. 11f). A poured concrete patio and two poured concrete stairways have been added to the front of the building.

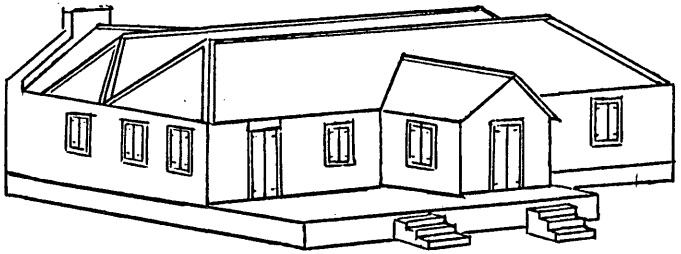
On the east wall there are three openings, all have a combination of casement windows and solid panel shutters. Two additions have been made on the north wall. The one to



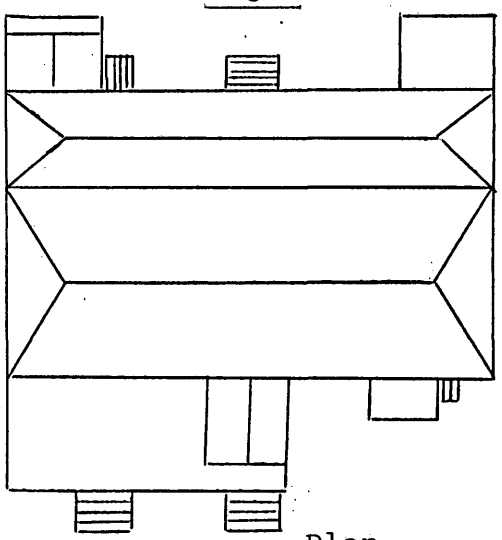
South Elevation
5'



West Elevation
5'



West/South Profile
5'



Plan
5'

Figure 21. Bungalow-type in Two Sections

the west is older, and served as the kitchen. This is a small, gabled unit on a coursed rubble foundation, it has a stone chimney on the north end. There is a stone stairway leading to the door on the east side of the addition. This door also has solid panel wooden shutters. The other addition is a recent domed concrete rest room, also at right angles to the main structure.

On this side there are four openings in the main portion of the building, and one central door. All of the windows have solid panel shutters and 6/6 double hung sash windows. The door is a combination of solid panel shutters and wooden louver shutters (fig. 10b). A stone stair leads to this door. The west wall has three windows, all with solid panel shutters and wooden louver shutters. The cellar entrance is on this side, near the front corner, and has solid panel shutters.

Both main sections of this building have shingle-clad hipped roofs. The entrance has a shingle-clad gable roof, with bargeboarding at the gable end (fig. 13d).

On the interior, both sections of the building are divided into three rooms, with a larger central room and roughly equal side rooms, each reached by a single door. There is a segmental or 'antillean' arch between the entrance and the main room of the front section, and a large doorway between the main room of the front section and that

of the rear section. The interior dividers on the rear portion do not reach the rafters. The central room in the front portion has a tray ceiling; all of the other rooms are open to the rafters.

This building was constructed in the nineteenth century as a private residence. It has also served as post office, telephone company, museum and library.

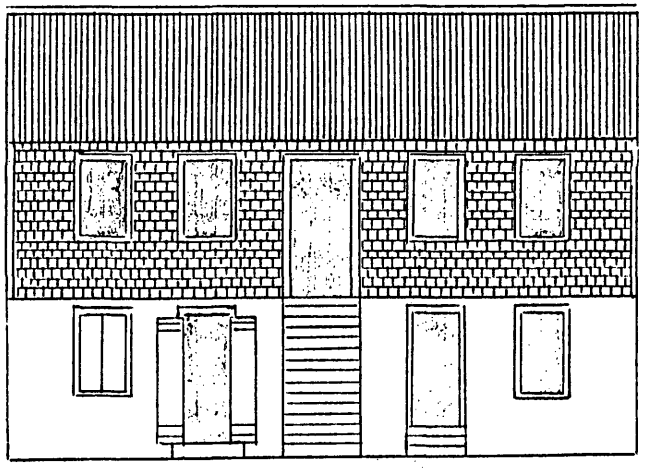
These large wooden houses are describrd on many of the British Caribbean Islands. Gosner shows several examples which are very similar to those observed on Statia (fig.).

B8

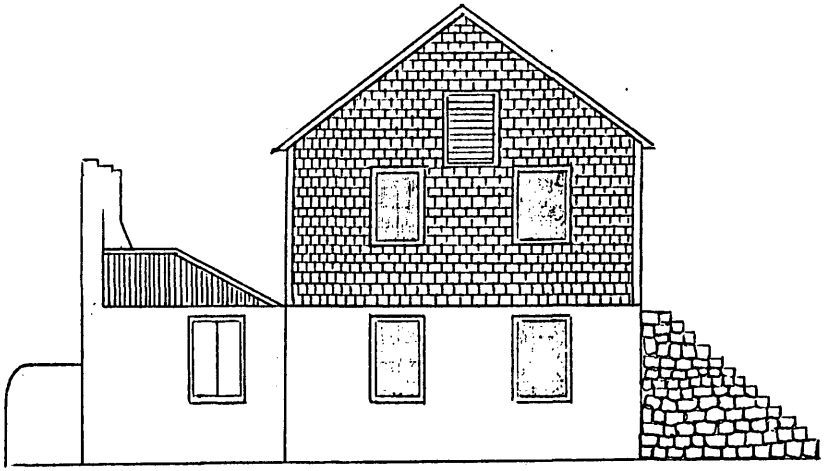
Two Story Wood and Masonry Combination

These structures are common all over the Caribbean. They were developed as a response to the need for fire prevention and earthquake protection. The ground floor is masonry, either stone or brick, and the first floor is wood (fig. 10). There are a few of these in the Upper Town.

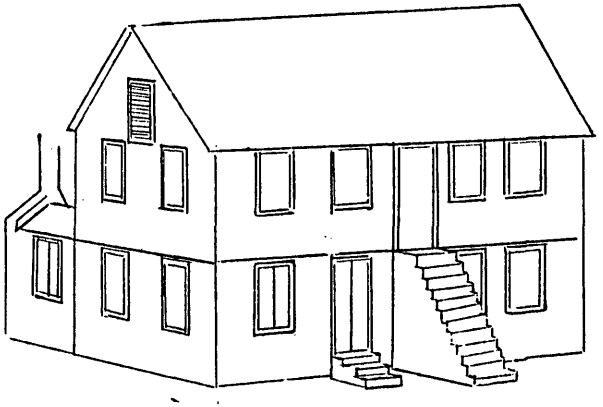
There is a two-story house on Brede Weg (fig. 3d) that was standing at the turn of the century. The building is approximately 33x18 feet and has a kitchen wing attached at the rear (fig. 22). The ground floor is coursed rubble. There is no distinct above-ground foundation, and nothing but a .5-1' space beneath the wooden interior floor. The walls are one foot thick. Window and door openings have



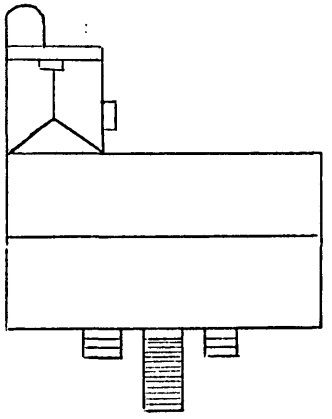
West Elevation
5'



North Elevation
5'



North/ West Profile
5'



Plan
5'

Figure 22. Two-story Wood and Masonry Combination

pegged wooden sills, and wrought iron pintels in the masonry exterior for carrying shutters.

An interior wooden stairway leads to the first floor, along with a cut stone stairway leading, at right angles to the front facade, to the first floor from the street level. There is evidence that this stair once had a wooden handrail along the right side, and a wooden balcony at the top. On the ground level there are two door and two window openings on the west wall, two window openings on each of the north and south walls, and two window and one door opening on the east wall. The door leads to the kitchen addition. With the exception of the door on the left of the stair on the front wall. there are no shutters remaining on the building. Those remaining are solid panel wooden shutters. The house used to have 4/4 double hung sash windows, but none is left.

The interior is divided in half widthwise by a wooden partition and the north half is divided again lengthwise, creating three small rooms. The floor is tongue and groove over joists stretching the width of the structure and toenailed into the walls.

The first floor, reached either by the stone outside stair or by the wooden inside stair, is a wood frame structure. The frame is horizontal board sheathed and wooden shingle clad. The interior of the walls is left unclad. This floor is divided widthwise into two roughly equal rooms,

each with tray ceilings. There is a star shaped brass lantern hook in the ceiling of each room.

The west wall has five openings, a door and four windows. The east wall has five windows, and each end wall has two windows at first floor level, and an attic level opening centered over these in the gable. This opening is filled with non-movable wooden louvers for air circulation.

All door and window openings on this floor have pegged wooden sills and wrought pintels for shutters, the same as on the ground floor. The sides of the sills are formed by the wall studs, the top and bottom sills are pegged into the studs. The chiseled numbers from construction are visible on these studs. there are no shutters remaining on this floor, but the sills show signs of having had double hung sash windows at one time. A postcard from the turn of the century shows this house with 4/4 double hung sash windows and solid panel wooden shutters.

Exterior decoration consists simply of pierced bargeboarding (fig. 13j) on the gable ends. The roof is a corrugated zinc-clad gable roof on the main building, and a corrugated zinc-clad hipped roof on the addition.

The addition is constructed of coursed rubble, and has a domed oven protruding from the eastern end. The chimney and hearth are yellow brick. The door on this section is a half door. The floor is concrete. The stone oven and brick

cooking bench are a common arrangement in the area. They are also reported for early Dutch colonial North America:

> Such fireplaces were built on a dirt or stone hearth, adjacent to the wall, which was protected by brick backing, and the hole in the garret floor led into a large hood, built of clay-daubed wood, which passed up through the garret and roof, to a small chimney. These 'hood' fireplaces may still be seen in ancient structures in Europe and were probably used in all the colonies (Morrison 1952: 122).

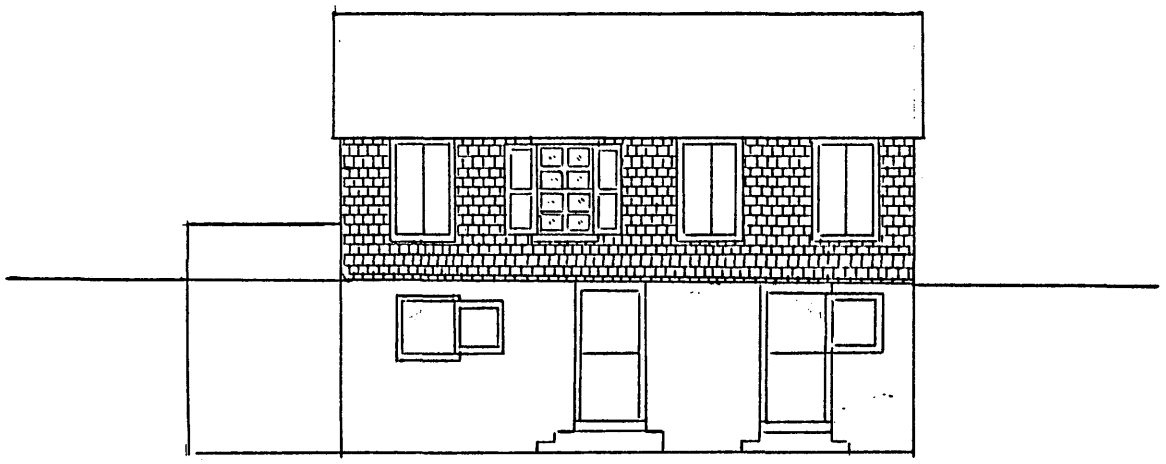
In this case, due to the absence of a second story, the hood is directly over the hearth/cooking area, which extends the width of the east end of the addition. Domed ovens are described as an attribute of Dutch colonial dwellings in New York and New Jersey, where the inhabitants,

> ....never built exterior chimneys....but there was almost always a bake-oven at the back of the kitchen fireplace, protruding outside the house as a round-topped brick or stone vault (Morrison 1952: 124).

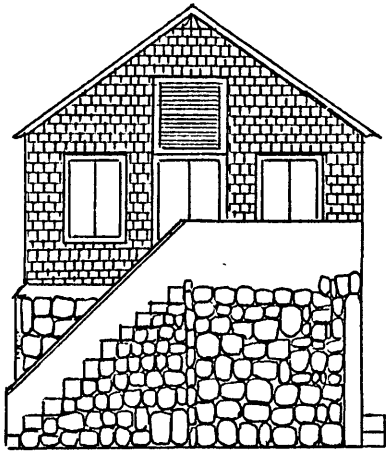
This particular kitchen also has a masonry cooking bench built over the hearth, below the hood, with the oven opening in the wall to the left.

Another of these two-story houses is located on the Synagogue path, across from the ruins of the synagogue (fig. 3L). It is possible that this building was put up in the early nineteenth century, but that cannot be proven. The ground floor is coursed rubble, and the first floor is wood frame (fig. 23). The main structure is 33x17 feet with a six foot masonry stairway addition along the north wall, and a shed addition on the south side. There are pegged wooden sills on all door and window openings. The west wall faces and fronts the synagogue path , flush with the stone compound walls continuing on either side along the path. There are two door and one window opening on the ground floor, and four windows on the first floor. The doors are half doors, each with a two-step stone stoop. The window on the ground floor has a single, solid panel shutter. Those on the first floor have a combination of solid panel shutters and 4/4 double hung sash windows. On the south wall there are two additions on ground floor level. Both are shingle clad wood frame with gable roofs, and both back on the compound wall. One unit is attached to the main structure, and the other leads off the first.

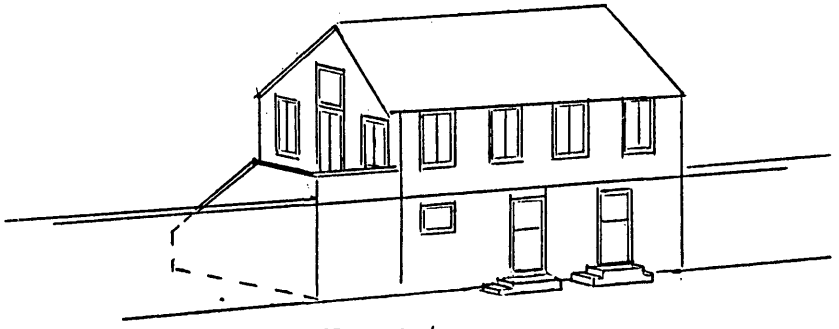
On this wall there is a single opening with double hung sash windows and solid panel shutters at first floor level. There is also a window at attic level which is filled with wooden louvers . The east wall has two windows and one door



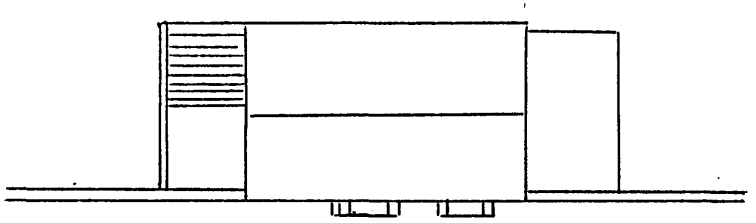
West Elevation
5'



North Elevation
5'



North/West Profile
5'



Plan
5'

Figure 23. Two-story Combination

on ground level. The windows are the same as on the other walls and the door has solid panel wooden shutters. On the first floor there are three windows and a door, with the same treatments as on the lower floor. The presence of the first floor door, along with exterior structural evidence indicates that at one time there was a first-floor balcony or gallery attached to the rear of the building. This would match the gallery on the rear of the structure on the opposite side of the compound.

On the north wall there are two windows and a door at first floor level. A masonry stairway has been added at ground floor level. It is a combination of red and yellow brick, and cut stone. There is a stone and brick rail as well. There is a window at attic level to match the one on the opposite end of the building, also with wooden louvers. The roof is a corrugated zinc-clad gable with trim at the gable ends (fig. 13b) and finials at the peaks.

The ground floor is divided in half by a wooden partition with one door opening. There is a wooden interior stair at the south end of the main structure. This crosses in front of the door leading to the additions. The first floor is also divided in half by a wooden partition which reaches to the wallplate. The space between the wallplate and the tray ceiling is filled with latticework.

This building is located in a compound with three other structures of varying date and style. One of these was a commercial building, the other two were residential. The entire compound is surrounded by a coursed rubble wall approximately seven feet high.

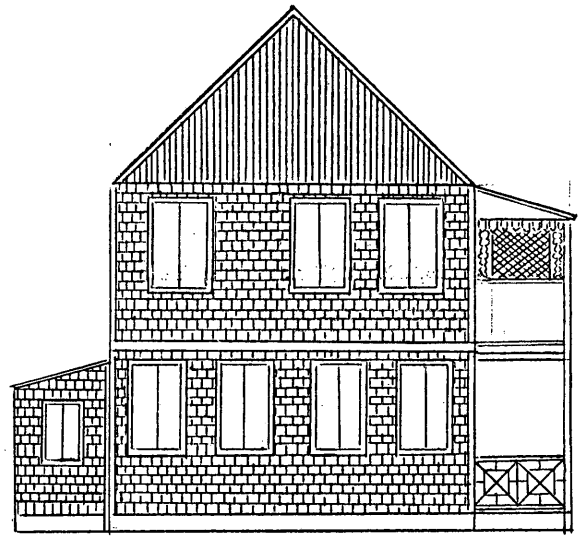
B9

Two-story Wood Frame

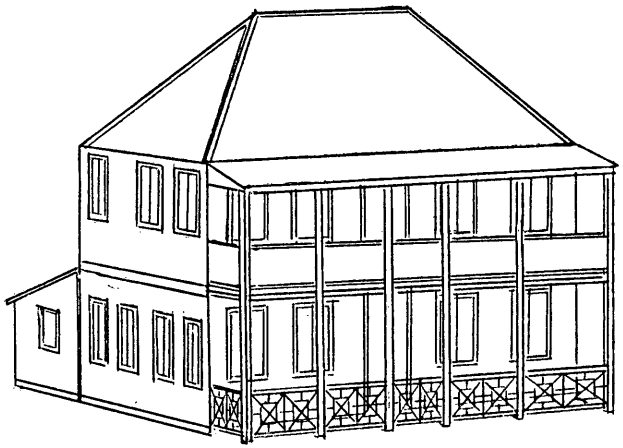
This is one of the few two story wooden structures left in the Upper Town (fig. 24). It is located on Fort Oranje Street (fig. 3m), near the center of town. It was built in the early twentieth century on the foundation of an earlier structure.. The foundation is cut, coursed stone (fig. 12v) that has been plastered in some areas, and repaired with cement.

The north wall has four windows and a central door on the first floor. There is a wooden first floor gallery which is supported by turned wooden posts. This creates an open arcade along the front of the ground floor. Geometric wood railing has recently been put around this arcade (fig 13q). The gallery is surrounded by a railing with carved wooden balusters (fig. 13u), and is covered by a shed roof. The roof is also held up by turned wooden posts. and has jigsaw trim (fig. 13g) along its edge. The east end of the gallery is filled with latticework between the rail and the rafter. All windows are a combination of4/4 double hung sash and

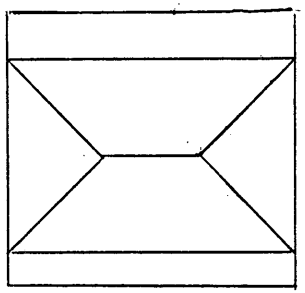
North Elevation
5'



East Elevation
5'



East/North Profile
5'



Plan
5'

Figure 24. Two-story Wood Frame

solid panel shutters. The doors are a combination of solid panel shutters and casement doors.

The west wall has four windows on each floor. The ground floor windows are 4/4 double hung sash, the first floor windows are casement, and all have solid panel wooden shutters. The south wall has an addition across the entire width. This has a corrugated zinc-clad shed roof and does not extend to the first floor. There is a 4/4 double hung sash window with solid panel shutters in both the east and west walls of the addition. There is a door in the south wall. The first floor window treatment on this side is a combination of wooden louvers (fig. 11d) and solid panel shutters on all four windows. The east wall has three windows on the first floor and four windows on the ground floor. All have double hung sash windows and solid panel shutters.

The interior is divided into five rooms on the ground floor. Four are in the main structure and the fifth is in the addition. All of the rooms in the main portion have tray ceilings, and there is an antillean arch between the front two rooms. A back interior stairway leads to the first floor.

The first floor is divided in half by a hall running the entire width of the house and opening onto the gallery. There are no ceilings on the first floor; all rooms are open

to the rafters. The dividing walls reach to the wallplate, and the area above, to within four feet of the roof peak is filled with latticework. This is a common arrangement in the Caribbean, and is intended to promote air circulation.

Although built in the twentieth century, this house has been called traditional because the same methods and materials went into its construction as were used for the other varieties of traditional structure. the framing is the same, and the structure is sheathed with horizontal boarding and clad with wood shingles. The interior floorplan, the treatment and arrangement of doors and windows, along with the presence of the first floor gallery, all identify this as a traditional wood structure.

CHAPTER 5

CONCLUSION

Based on medieval European construction methods, and modified to fit the needs of settlers in tropical colonies, the wood frame structures which developed throughout the Caribbean were a unique approach to incoroprating social values into physical surroundings. The houses the Arawak and Carib inhabitants were based on a simple rectangular floorplan, and made of readily available materials. Medieval house construction in Europe followed the same basic pattern, although with greater elaboration.

When Europeans colonized the Caribbean it was not a very great variance from basic conceptions of form to use Arawak and Carib models, where these were available, as guidelines for building early houses. Change seems to have had more to do with adaptation of materials, layout and door and window treatment than the actual construction techniques. When wood was available some made every effort to duplicate English houses. Similarly when the necessary materials were available, early

Dutch colonists attempted to create a townscape like that to which they were accustomed. New Amsterdam, Albany and Curacao are witness to this. For a variety of reasons this was not possible in many places, thus the development of the wood framing tradition.

Reliance on wood for construction further influenced the development of housing in the Caribbean. The source of the precut boards, timbers, and frames had to have an influence on the style of the finished product. Wood frame structures in the Caribbean undoubtedly developed under a great deal of British influence:

> One reason was the prevalence of Georgian builders handbooks; another was the preponderance of settlers of British origin. There was a great deal of migration from one West Indian island to another....(Gosner 1982: 6).

Unquestionably the greatest influence on wood frame architectural styles on Statia was British, given the history of the island and its involvement in trade with other (British) Caribbean colonies, European ports, and North American interests. The series of seven takeovers and conquests of the island by the British, and its continued contact and close social and economic connections with nearby St. Kitts and Nevis, longtime British colonies, more

firmly established this influence. But even this influence was muted slightly by the turn of the eighteenth century.

> In St. Christopher the compensation claims of 1706 show us dozens of examples of long, narrow, one-story wooden houses, built low to resist hurricanes, built narrow so that the breeze could pass through every room, built long so as to incorporate porches and shades at either end. (Dunn 1972: 299).

Here is the B2-type frame house.

However North America had the greatest influence on materials. Most of the materials for construction came from the U.S. and Canada, and still are brought from Puerto Rico. The kind, size and shape of timbers, shingles and boards was determined before the lumber arrived on the island. Every frame examined on the island was made up of 3x3" timbers. All members of the frames were the same dimensions, whether corner posts, studs, rafters, sills, wallplates or window sills. All are joined with mortise and tenon joints, rather than nailed, even those constructed in the twentieth century.

Problems with this kind of study become apparent when comparisons are attempted. The amount and kind of information available limits conclusions which can be drawn, and comparisons which can be made. Until recently

architectural survey was concerned only with public buildings, churches, forts, and large, elaborate houses. As a result, in many cases there is no documentation with which to compare Statian styles.

Of all of the types of wood frame buildings on Statia the two-story wood and stone combination is the most documented, as explained by Berthelot and Gaume:

> ....mixed urban construction is common in all the West Indies, and can be explained by the various catastrophes to which the West Indian house is exposed. A wooden frame with its flexibility can survive earthquakes, but is vulnerable to fire. People therefore choose to protect the more vulnerable ground floor from fire; while the upstairs, more sensitive to seismic shocks is built in wood (1982: 144).

The development of this style of structure was influenced and accelerated by the passage, on many islands, of fire codes. These codes governed placement and materials of urban construction. For instance, on Danish St. Thomas man-made fires destroyed two-thirds of Charlotte Amalia between 1804 and 1832; for this reason fire codes were enacted which dealt with the closeness and height of structures (Svensen 1964: 17-24). These fire laws, enacted here and elsewhere, promoted this type of dwelling, and

quite possibly imposed limits on the variety of structures which would develop in the area.

The small rectangular module, B5, and the larger bungalow-type, B6, appear to be the most common. They were observed on all of the islands visited, with perhaps the best examples on Saba. Those on St. Maarten tend not to have the full-length verandah on the front, but open directly onto the street. Early photographs taken from the top of the Dutch Reformed Church tower show the southern half of the Upper Town in about 1910 (fig. 25). They show a majority of the B2 and B5 types, with a few B6 L-plan structures. There are none of the two- and three-story wood frame buildings which were observed on St. Kitts, some with tiered galleries surrounding three or four sides of the building. Most likely this is a factor of economics. When these larger houses were being built, in the mid-nineteenth century, Statia was in economic decline and had lost much of its earlier population. The L-plan does not seem to appear frequently at all on any of the neighboring islands. The reasons for this are unknown.

Another conclusion that may be drawn, based on available materials is that the architectural styles adopted during Statia's heyday as a trade center were maintained following decrease in trade in the beginning of the nineteenth century. This style included the medieval-based

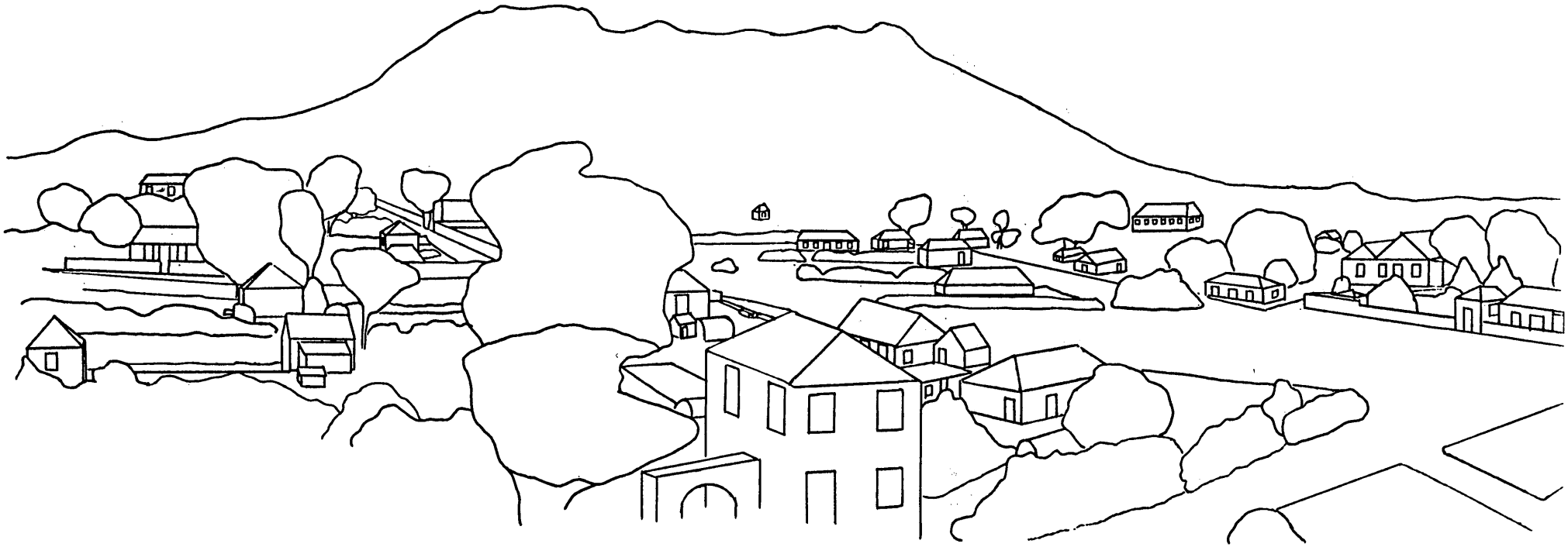


Figure 25. Drawing from photos taken from the Church Tower around 1910

frame, the kind and size of lumber, sheathing and cladding techniques, and the traditional door and window treatments. George Snow's balloon frame may have had little effect on Statia because during its rise in popularity the island was relatively isolated (compared to a century earlier). The result may have been a greater variety of buildings based on the frame that the carpenters on the island already knew; a rectangular wood frame, added onto in a variety of ways, and sheathed, clad and decorated in a traditional manner. Vlatch indicated similar reasons for the variety of shotgun houses in Louisiana.

Because of the conservative character of wooden houses this style was carried into the twentieth century. For this reason the frame buildings put up in the 1920s and 1930s were very nearly identical to those built in the nineteenth century. More than likely, these have some eighteenth century characteristics as well.

The eighteenth century buildings on Statia exhibit a few Dutch characteristics. These include the orientation of the narrow end toward the street, and the use, where possible, of masonry as construction material. These could be attempts to adhere to medieval European concepts even in New World circumstances. This is evidenced by the use of glass windows by British colonists in Barbados, Bermuda

and Jamaica in spite of their unsuitability for the climate and the window tax (Dunn 1972: 291).

The nineteenth century buildings on Statia show more British colonial influence in materials and orientation. These basic wood frame buildings were constructed well into the twentieth century. With economic growth after the 1950s, there was a building episode which resulted in many of the cinder block and concrete dwellings presently on the south end of town. After this point people either built with new materials or added onto wood structures with new materials. Reportedly there were very few, if any, wood frame buildings constructed after about 1940.

The initial influence was Dutch, overlaid by British, the materials North American, but the variety is Statian. This is especially apparent in structures such as the stone cottage (fig. 18), and the modified L-plan (fig. 17). The same can be said of the stone and brick structures. The house built by Jakob VonPutten (fig. 15) was a Statian model of a British-influenced style seen in the eighteenth century houses.

Another Statian development of house form has more to do with the context of the building rather than the building itself. According to Rapoport (1980: 291-294), the built environment serves as an indicator of the social interactions and relationships that are important to the

operation of a society. In Oranjestad the business and private communities were historically separated by the cliffs which separate the Lower Town from the Upper Town. This separation also served as a boundary, keeping out unwanted sociocultural influences (Kandle 1985: 137). In the Upper Town every house has a yard, most enclosed in some fashion. The Statian character is in the positioning of the house within an area that is marked, either by enclosure or by some other indicator, as private, thus separating private from public in a very small community. These mechanisms include yard walls of stone (which were more common historically), rails around verandahs and patios, especially when these open directly onto the street, and fences of a variety of materials. The Lower Town-Upper Town division served to separate transient traders from permanent residents, creating a boundary around the community. The continued use of enclosure serves to reinforce social boundaries within a small community.

The variety of styles developed from a basic model, and the setting of these houses within a personal space are the Statian characteristics which can be determined from the evidence studied to this point. However this study is not all-inclusive. There are many aspects of architecture on Statia which were not dealt with in connection with this

survey of traditional stone, brick and wooden buildings. These should be addressed in order to develop a clear picture of the past and present character of the town of Oranjestad.

BIBLIOGRAPHY

Acworth, A.W.
1949 Treasure in the Caribbean: A First Study of Georgian Buildings in the British West Indies. London, Pleiades Books Ltd.

Acworth, A.W.
1951 Buildings of Architectural or Historic Interest in the British West Indies. London, His Majesty's Stationery Office.

Alexander, Sir James Edward
1833 Transatlantic Sketches Comprising Visits to the Most Interesting Scenes in North and South America and the West Indies, With Notes on Negro Slavery And Canadian Immigration, Volume 1. London, R. Bentley.

Attema, Yipe
1976 St. Eustatius, A Short History of the Island and Its Monuments. Holland. De Walberg Pers Zutphen.

Bayley, Fredrick William Naylor
1830 Four Years Residence in the West Indies. London, W. Kidd.

Berthelot, Jack and Martine Gaume
1982 Caribbean Popular Dwelling. Paris, Push.

Bridenbaugh, Carl and Roberta
1972 No Peace Beyond the Line: The English in the Caribbean, 1624-1690. New York, Oxford University Press.

Brown, Robert S.
1979 The Vernacular Architecture of Fredriksted. Journal of the Virgin Islands Archaeological Society Vol. 8, pp. 3-43.

Brunskill, R.W.
1970 Illustrated Handbook of Vernacular Architecture. New York, Universe Books.

Buisseret. David
1980 Historic Architecture of the Caribbean. London, Heinemann.

Cave, Lyndon F.
1981 The Smaller English House: Its History and Development. London, Robert Hall.

Chapman, William
n.d. Source Book for Buildings and Structures: A Resource Manual For The Virgin Islands Inventory of Historic Places.

Connell, Neville
1971 Some Early Printed Views of the West Indies. Antiquities, (Jan.), pp. 127-131.

Cummings, Abbott Lowell
1979 The Framed Houses of Massachusetts Bay, 1625 -1725. Cambridge, Harvard University Press.

Dillard, Maud Esther
1963 An Album of New Netherland. New York, Twayne Publishing.

Doran, Edwin, Jr.
1962 The West Indian Hip Roofed Cottage. California Geographer, Vol. 3, pp. 97-104.

Dunn, Richard S.
1972 Sugar and Slaves: The Rise of the Planter Class in the English West Indies, 1624-1713. New York, W.W. Norton and Company.

Eaden, John
1970 The Memoirs of Pere Labat. 1693-1705. London, Frank Cass and Co. Ltd.

Edwards, Bryan
1819 The History, Civil and Commercial, of the British West Indies, Vol. VII. London, T. Miller. New York, AMS Press, 1961.

Edwards, Jay D.
1980 The Evolution of Vernacular Architecture in the Western Caribbean. In: Cultural Traditions and Caribbean Identity: The Question of Patrimony. S. Jeffery Wilkerson, ed.. University of Florida Center For Latin American Studies, pp. 191-243.

Edwards, Jay D.
1983 The First Comparative Studies of Caribbean Architecture. New West Indian Guide, no. 57, pp. 173-200.

Fermor, Patrick Leigh
1950 Traveler's Tree. London, John Murray.

Gosner, Pamela
1971 Historic Architecture in the U.S.V.I.. Durham, N.C., Moore Publishing Co.

Gosner, Pamela
1982 Caribbean Georgian: The Great and Small Houses of the West Indies. Washington, D.C., Three Continents Press.

Hartog, J.
1976 History of St. Eustatius. Aruba, VAD

Herbert, Gilbert
1978 Pioneers of Prefabrication: The British Contribution In The Ninetenth Century. Baltimore, Johns Hopkins University Press.

Kandle, Patricia
1985 St. Eustatius: Acculturation in a Dutch Caribbean Colony. Master's Thesis, College of William and Mary.

King, Anthony
1974 The Bungalow: The Development and Diffusion of a House Type. Architectural Association Quarterly, Vol. 5, no. 3, pp. 6-26.

Kniffen, Fred
1936 Louisiana House Types. Annals of The Association of American Geographers, Vol. 26, no. 4, pp. 179-193.

Kuypher, W.
1980 Dutch Classicist Architecture. Delft, Delft University Press.

Lancaster, Clay
1985 The American Bungalow. New York, Abbeville Press.

Lewis, John Newel
1983 Architecture of the Caribbean and its Amerindian Origins in Trinidad. Washington, D.C., American Institute of Architects Service Corporation.

Mintz, Sydney
1968 Caribbean Society. International Encyclopedia of Social Sciences. pp 306-319.

Morrison, Hugh
1952 Early American Architecture: From The First

Colonial Settlement to the National Period. New York, Oxford University Press.

Oper, Fredrik A.
1904 Our West Indian Neighbors. New York, James Pott and Company.

Otterbein, Keith F.
1975 Changing House Types In Long Bay Cays. New Haven, Human Relations Area Files.

Rapoport, Amos
1969 House Form and Culture. Englewood Cliffs, Prentice Hall.

Rapoport, Amos
1980 Vernacular Architecture and the Cultural Determinants of form. In: Buildings and Society: Essays on the Social Environment, Anthony King, ed.. Boston, Routledge, Keegan Paul. pp. 283-305.

Rose, Barbara
1969 The Golden Age of Dutch Painitng. New York and Washington, D.C., Frank A. Prague.

Sprague, Paul E.
1983 Chicago Balloon Frame: The Evolution During the Nineteenth Century of George Snow's System for Erecting Light Frame Buildings From Dimension Lumber and Machine Made Nails. In: H. Ward Jandl. ed. The Technology of Historic American Buildings. Washington, D.C., The Foundation For Presrevation Technology.

Svensen. Ole
1964 Three Towns: Conservation and Renewal of Charlotte Amalia. Christiansted, and Fredriksted of the U.S. Virgin Islands. Copenhagen, Department of Town Planning, Royal Danish Academy of Fine Arts.

Towle, Judith
1978 Historic Site Preservation in the Caribbean, a Status Report. St. Thomas, Island Resources Foundation.

Tuchman, Barbara W.
1988 The First Salute: A View of the American Revolution. New York, Alfred A. Knopf.

Van Andel, Joan
1985 Caribbean Traditional Architecture. Leiden, Department of Caribbean Studies, Royal Institute of Linguistics and Anthropology.

Van den Bor, Wout
1981 Island Adrift: The Case of St. Eustatius. Leiden, Department of Caribbean Studies, Royal Institute of Linguistics and Anthropology.

Vlatch, John Michael
1976 The Shotgun House: An African Architectural Legacy. Part 1. Pioneer America, Vol. 8, no. 1 (Jan.), pp. 47-56.

Vlatch, John Michael
1976 The Shotgun House: An African Architectural Legacy, Part 2. Poineer America, Vol. 8, no. 2 (July), pp. 57-70.

Vlatch, John Michael
1977 Shotgun Houses. Natural History, (Feb.), pp. 51-57.

Wood, Margaret
1965 The English Medieval House. London, Phoenix House.

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