

Archaeological and Architectural Assessment of Charles Fort, St. Kitts, West Indies

Charles Fort Archaeological and Historical Project Report No. 1

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Recommendations

Charles Fort is a significant social, cultural, and historical resource for the people of St. Kitts and the Caribbean. The fort's integrity, as both a military and hospital complex, have been retained. However, the fort is threatened by the adverse impact of further erosion of the sea cliff on the western side where significant damage to the southwest and northwest bastions has occurred. Weather related damage, which has had considerable impact on the site particularly since the hospital was closed in 1996, poses a continuing threat to the fort's buildings, unless their repair and stabilization are initiated and maintained. Similarly, structural damage from the removal of building materials and agricultural activities, while not great, will continue to degrade the site unless access is restricted. Encroachment from modern construction and agriculture also represent a serious direct threat to the chapel and cemetery areas. More generally, these activities, unless curtailed and carefully monitored, have potential to compromise the fort's visual integrity and its overall setting in the landscape. Although work conducted at the fort in May-June, 2000 was sufficient for assessing the fort's significance and integrity, further archaeological and architectural studies are required to fully determine the history and chronology of its military construction and use, and to provide greater detail respecting the history and character of the hospital and its architecture. Especially, important is a thorough examination and assessment of the hospital's landscaping. So that Charles Fort may continue to contribute to the cultural heritage of St., Kitts, specific recommendations for addressing its protection, preservation, further study, and future development are provided below:

- Devise a cost effective plan to stabilize the Southwest and Northwest Bastions to prevent further destruction by erosion and to alleviate the threat of erosion to the west defensive wall.

- Close off the windows and doors of the chapel to prevent further vandalism and damage by weather and repair the roof as necessary.
- Close off doors and windows of all standing structures and install roof repairs as necessary to prevent their further damage. The hospital administrative building (Structure 7) is especially threatened.
- Stabilize the walls of Structure 34 to prevent its collapse.
- The debris from buildings that have collapsed (e.g. Structures 16, 27, and 36) should not be removed without first carefully identifying, labeling, describing, and recording the individual architectural elements.
- No new buildings should be built within or in the immediate vicinity of the fort in order to protect its cultural and historical characteristics, integrity, and significance.
- No buildings or other features such as stone walls should be altered by new non compatible construction without consideration of their cultural and historical significance.
- All artifacts such as iron beds, furniture, broken bottles, and metal pans scattered around the site should not be removed without consideration of their cultural and historical significance.
- No areas within or immediately outside the fort should be disturbed by heavy equipment such as bulldozers.
- Gardening and other similar activities, which have been previously allowed in the south half of the fort, should not be permitted because of their adverse effect on the hospital's historical landscaping.

- Brush and trees were cut from most of the fort's interior in May-June 2000 and should not be allowed to grow back.
- The boundaries of the cemetery should be located, the area marked with a fence, and no gardening or livestock related activities should be permitted within it.
- Additional architectural assessment is needed to further delineate the nature and sequence of renovation, repairs, and rebuilding associated with both the military and medical uses of the fort.
- Additional archaeological investigations should be undertaken in areas with the potential for locating or further understanding the eighteenth century military occupation.
- Detailed mapping, shallow surface excavations, and non invasive geophysical techniques (e.g. ground penetrating radar) should be used to precisely define the cemetery area and to investigate the fort's landscaping and gardens.

Acknowledgments

Archaeological and architectural studies at Charles Fort were made possible because of the interest and generosity of the people of St. Kitts. More specifically, the research was approved, arranged, and supported by Mr. G.A. Dwyer Astaphan, Minister, Tourism, Culture and Environment (now Ministry of Tourism, Information, Telecommunications, Commerce, and Consumer Affairs) and Mrs. Hilary E. Wattley Permanent Secretary to the Minister. Additional interest and support for the project came from Ms. Jacinth Henry-Martin, Minister of Culture, and Mr. Creighton Pension, Director, Office of Culture. Mrs. Victoria O'Flaherty, Department of Archives, graciously helped locate documents and records concerning the fort's occupation. The work at Charles Fort required clearing virtually the entire area of vegetation. This difficult task could not have been completed without the help of Mr. Raymond Soloman, Director, Office of the Environment, who arranged for a cutting crew to work at the site. The efforts of Mr. Winston Riley, crew chief, and his men were essential to the project's success.

Mapping and describing the fort's structures and conducting archaeological test excavations were directed by Gerald F. Schroedl, Professor, Department of Anthropology, University of Tennessee, and Mr. Todd H. Ahlman, doctoral student, Department of Anthropology, University of Tennessee. Importantly, Mr. Ahlman identified all the artifacts recovered from the excavations. Support for the work was provide by the Department of Anthropology, Dr. Jan Simek, Head and the Office of the Dean of Arts and Sciences, Lorayne Lester Dean. Additional financial support was generously provided by Mr. Michael E. Schroedl, Thinc Actionwear, Portland, Oregon. Mr. Victor Smith, Gravesend, England helped with information regarding the fortress' construction and occupation by the British military. Mr. David King, Nuneaton, England,

provided valuable information respecting picture postcards of the fort published in the early twentieth century.

Students from the University of Tennessee conducted the investigations at the fort. They included: Jaymon Bell, Shay Coons, Mollie Kincaid, Wendy Hodge, Eric Littlepage, Josh Swartz, and Julie Wilburn. Living quarters for project personnel were made available by Mr. Grenville Rodgers, while Mr. Marcus Spencer of the Spratnet Restaurant and Julie, Ian and Merlin Sanders of J's Place and the Brimstone Hill Snack Bar provided the research group their hospitality. Mr. Larry Armony, Site Manager and Mr. Joseph Woodley, Park Foreman, Brimstone Hill National Park provided logistical support and storage for project equipment and the artifacts recovered at the site. Finally, Mr. Malcolm Govia, Sandy Point Town, shared his personal knowledge of the organization, construction, use, and history of the Charles Fort Leper Asylum gathered from nearly 25 years employment at the hospital. His insights and experience greatly enhanced the interpretation of the site and its history.

Introduction

Archaeological and architectural studies at Charles Fort were conducted from May 15 to June 2, 2000. These investigations were carried out at the request of the Ministry of Culture, Environment, and Tourism (now Ministry of Tourism, Information, Telecommunications, Commerce, and Consumer Affairs). For a decade or more there has been informal discussion among government officials, cultural heritage interests, and private individuals about the preservation, protection, and potential future use of the fortress. These discussions have centered on two related topics: (1) the potential inclusion of Charles Fort within the Brimstone Hill Fortress National Park; and (2) the possible adaptive reuse of the fortress for cultural events. Although no formal agreement has been reached on these topics, there is general consensus that the fortress should be protected and preserved as part of St. Kitts' national heritage. The purpose of archaeological and architectural research was to provide public officials information about the structure, organization, and integrity of the site that they can use in deciding how best to utilize it while preserving and protecting its historical character as an eighteenth century fortress and a twentieth century hospital complex.

Four kinds of studies were conducted to provide this information: (1) A detailed site map was made using modern surveying technology. (2) Each structure and major architectural feature was cleared of vegetation for inclusion on the map, and each was described, photographed, and drawn in plan view. (3) Archaeological test excavations were conducted in five locations. (4) Historical information about the fort's use as a leper hospital was gathered from documents in the St. Kitts archives and local informants. This was done in conjunction with a larger, but separate, ethnographic and historical project to document the social and cultural history of the hospital.

Charles Fort is located at the south end of Sandy Point harbor approximately 30 km north-northwest of Basseterre. It is less than a kilometer west-northwest of

Brimstone Hill and about 200m from the main island highway. It is not to be confused with Fort Charles which is located at Old Road. Unfortunately, the two forts and the two names are sometimes confused in both historical documents and maps as well as contemporary research. Charles Fort is designated site AN01 (AN referring to its location in St. Ann's Parish) in the site numbering system adopted by the St. Kitts Heritage Society in 1998 (Tyson and Bacci 1998). All records made for the site are labeled accordingly.

There are two significant periods of occupation at Charles Fort. These are the periods of use as a military post from 1672 until 1854 and its use as a leper asylum from 1890 to 1996. The Duke of Buccleuch's 1723 plan (Smith 1994: Figure 4) and French maps relating to the 1782 siege of Brimstone Hill suggest that few buildings were present within the fort during the military period. The 1723 plan, for example, indicates seven distinctive buildings (Figure 1). Only four of these, however, are clearly identifiable today. There is no evidence presently available to suggest that additional military buildings were constructed after 1723, even during the period of massive expansion of Brimstone Hill in the late eighteenth and early nineteenth centuries (see Smith 1994, 1995). Inspection of the south and west defensive walls and the southeast and southwest bastions, however, indicate considerable alteration, and all the bastions exhibit changes in the locations of the embrasures from those shown on the 1723 plan.

The second period of occupation, following nearly 40 years of abandonment, is the adaptive reuse of the fort as a leper asylum. Most of the structures within the fort date to this occupation. The state of preservation of individual structures and the kinds of materials used to build them suggest two broad periods of development. Stone foundations probably date before the 1940s. Poured concrete foundations, walls or piers, and buildings could date as early as the 1920s but wide-spread use of concrete is probably more common after the 1940s. The use of concrete blocks are considered late

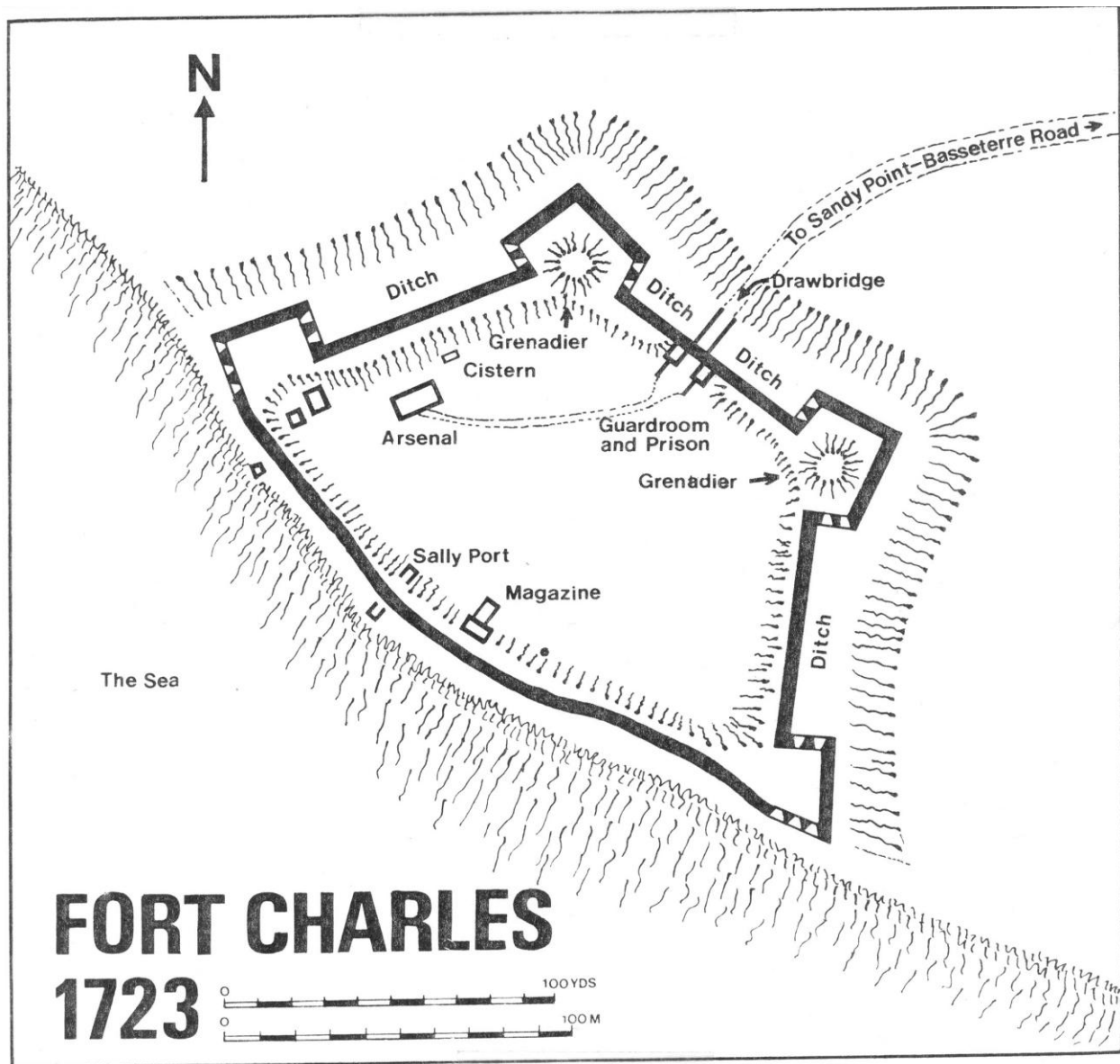


Figure 1. Plan of Charles Fort in 1723 based on an original drawing in the collection of the Duke of Buccleuch (from Smith 1994: Figure 4).

in the development of the leper hospital, certainly after World War II, although the precise date of their introduction into St. Kitts has not been established. Consequently, buildings using poured concrete or concrete block construction are generally considered to date after the mid 1940s, unless there is clear evidence to the contrary. It is also evident, however, that wood, concrete, and concrete block hospital buildings were constructed on foundations dating earlier in the hospital's development or even to the period of the fort's military use.

Mapping

Mapping of Charles Fort was carried out with a Nikon DTM-420 total station. All major structures and architectural features such as connecting walls, stairways, fences, and drains were recorded (Figure 2). Also collected were contour data within the fortress walls and from the surrounding area. As vegetation was cleared from around the fort's buildings and from open areas to provide line of sight for mapping, a variety of rock alignments consisting of large cobbles and small boulders were identified. Their patterns and placements suggest that the stones were used as borders along walkways, paths, flower beds, gardens, and other landscape features. This is confirmed by a picture postcard of the hospital grounds taken in the 1920s or 1930s (Figure 3; see below). Because the vegetation was not entirely cleared from the fort's interior, a complete and thorough investigation and mapping of the alignments and landscape features was not undertaken.

Structure Descriptions

Standing structures, ruins, and foundations representing freestanding architectural features or buildings were individually numbered. These were numbered clockwise beginning in the Northeast Bastion. A total of 38 structures were identified as

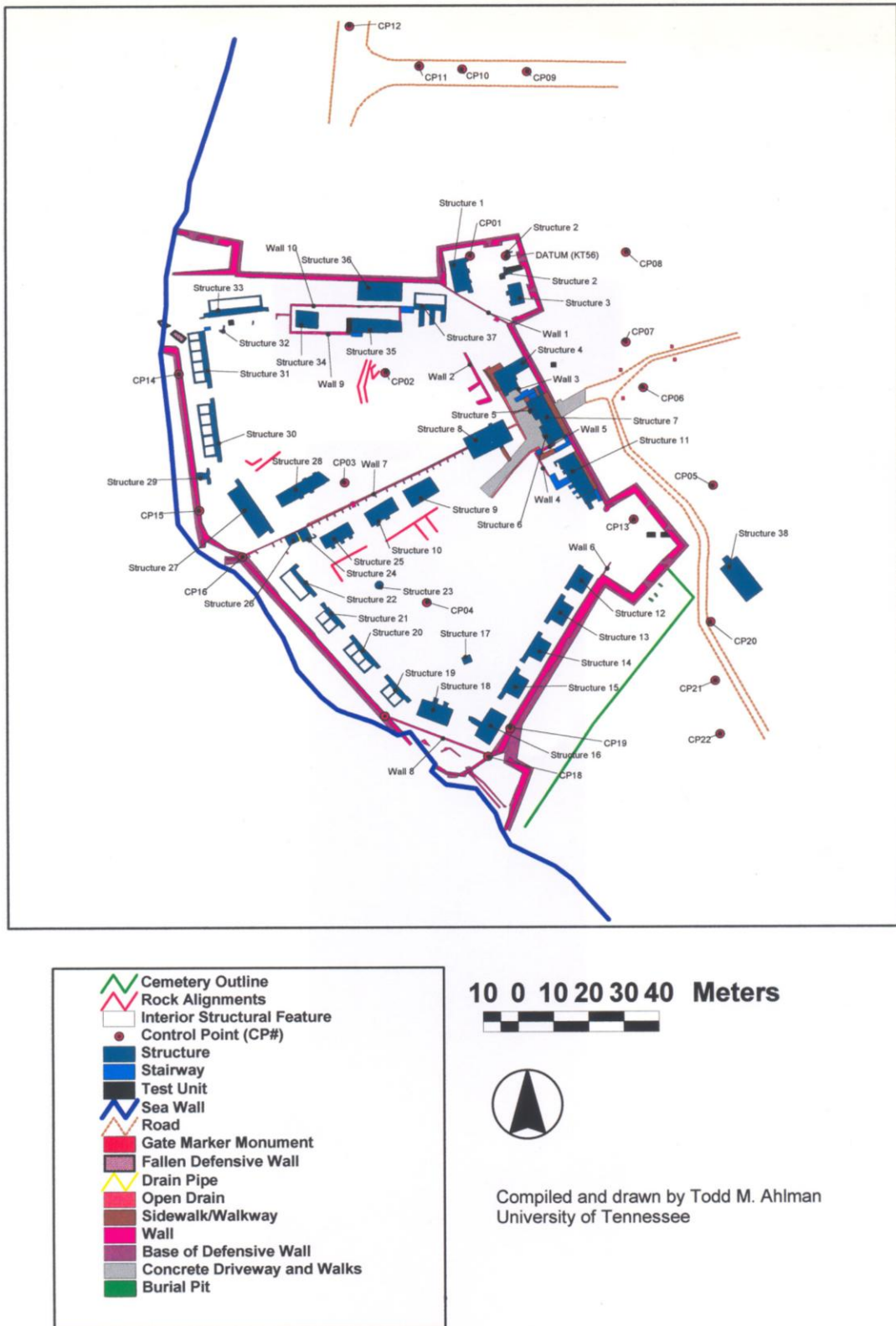


Figure 2. Plan of Charles Fort, showing the locations of structures and features mapped in May—June, 2000



Figure 3. Picture postcard of the interior of Charles Fort be V.E. John (date unknown).

such (Table 1). In addition, ten walls, listed in Table 2, were numbered separately for the purpose of mapping. These and other distinctive architectural elements or features

Table 1. Individually numbered structures at Charles Fort.

Structure	Description
1	Stone foundation, probable patient housing
2	Stone foundation, probable patient housing
3	Standing structure, patient detention
4	Standing structure, kitchen
5	Standing structure, guard house and asylum storage
6	Standing structure, guard house and asylum storage
7	Standing building, housing for hospital staff and administrative office
8	Standing structure, assembly hall
9	Standing structure, clinic
10	Standing structure, pharmacy
11	Ruin, housing for hospital staff
12	Standing structure, patient housing
13	Standing structure, patient housing
14	Standing structure, patient housing
15	Standing structure, patient housing
16	Standing structure, patient housing
17	Standing structure, bathroom
18	Standing structure, patient housing
19	Stone foundation, probable patient housing
20	Stone foundation, probable patient housing
21	Stone foundation, probable patient housing
22	Stone foundation, probable patient housing
23	Standing structure, fountain
24	Standing structure, bathroom
25	Ruin, bath and laundry
26	Standing structure, septic tank attached to Structure 24
27	Ruin, probable patient housing
28	Ruin, bath and laundry
29	Standing structure, sally port
30	Stone foundation, probable patient housing

Table 1. continued

31	Stone foundation, probable patient housing
32	Stone foundation, arsenal
33	Stone foundation, probable patient housing
34	Ruin, patient housing
35	Standing structure, cistern
36	Ruin, patient housing
37	Stone foundation, library
38	Standing structure, chapel building

Table 2. Individually numbered walls at Charles Fort.

Wall	Description
1	Wall connecting northwest and southeast interior corners of the Northeast Bastion
2	Wall in front of Structure 4 running from northeast corner of Structure 8 to the area of Structure 37
3	Short wall connecting Structures 4 and 5
4	Retaining wall in front of Structure 11
5	Retaining wall connecting Structures 6 and 11
6	Wall attached to the southwest interior corner of the Southeast Bastion
7	Concrete foundation for fence running from Structure 4 to the west defensive wall.
8	Concrete block wall cutting off the Southwest Bastion from the forts interior
9	South cistern catchment retaining wall
10	North cistern catchment retaining wall

were recorded, and where appropriate are described individually or in relationship to a particular structure. The use or function of buildings as identified below relies on information provided by interviews with Mr. Malcolm Govia and largely refers to the period after 1973. On two occasions Mr. Govia, accompanied by project personnel, toured the site and reviewed the history of the hospital and the specific use of individual structures. Shortly after the field work was completed a black and white picture post card taken by V.E. John was discovered showing three buildings and the landscaping in

the northwest corner of the hospital (Figure 3). The card is undated, but based on postally used examples of other cards by the same photographer probably dates to the first quarter of the twentieth century (David King, personal communication, 2000). This is an especially important document, because it is the only known photograph taken of the hospital's original grounds. Only one of the structures (Structure 34) in the photograph is still standing, and it is partly collapsed. The stone landscaping borders and garden decorations in the photograph are now represented only by incomplete or partial rock alignments.

To record the structures at Charles Fort: (1) each building was included in the overall map of the site by taking multiple measurements with the total station; (2) as many sides as possible of each structure was recorded with black and white photographs and color slides (see Schroedl 2000); (3) a measured plan view was made of each building at a scale of 1:50; and (4) a standardized record form was completed for each standing structure and detailed descriptive notes were taken for these and all other structures. The architectural record form was adapted from forms used by the Tennessee Historical Commission to record and evaluate structures for inclusion on the National Register of Historic Places in the United States. Additional insight to recording the structures was drawn from the work of McAlester and McAlester (1997) and from studies of Caribbean architecture by Slesin et al. (1985), and Gosner (1982).

Structure:	1
Type:	Stone Foundation
Use	Undetermined, probable patient housing
Location	Northeast Bastion
Dimensions:	5m wide by 9.2m long (porch 1.2m wide)

Description: Structure 1 consists of a mortar and stone foundation. There are no visible interior partitions. A porch runs the length of the building's east side. There are three single steps placed equidistant along the porch and a set of three steps at its

south end. This building probably represents an early structure for housing leper asylum patients, because its plan is similar to buildings used for this purpose elsewhere at the site and because it is very unlikely that a military building would be placed within the bastion at such a position. Because Structure 1 consists of a stone foundation, it probably dates before the 1940s.

Structure: 2
Type: Stone Foundation
Use: Undetermined, probable patient housing
Location: Northeast Bastion
Dimensions: 6m wide, length undetermined

Description: Structure 2 consists of a mortar and stone foundation that is not completely exposed at the present ground surface. The full dimensions of the building, as a result, are undetermined. No evidence of any steps were observed. There is a probable entrance on the south wall.

Excavation of Test Pits 1, 2, 3, 4, 5, and 6 show that Structure 2 was built on top of a stone floor skirting the interior of the bastion. This floor surely dates to the period of military use and may date to the original construction of the fort, although this is unconfirmed by associated archaeological materials. Structure 2 likely dates to the early use of the site as a leper asylum and was most likely used to house patients.

Structure 2 appears aligned with Structure 1, and for this reason they may be contemporaneous.

Structure: 3
Type: Standing Building
Use: Detention for asylum patients
Location: Northeast Bastion
Dimensions: 3.7m wide by 6.2m long

Description: Structure 3 has concrete and concrete block walls with a stucco finish on the exterior. It was constructed on an earlier stone foundation. Structure 3 is not

painted. The building is divided into two rooms, each with an outside entry and a single window on the west facade. These openings have horizontal louvers above them. Each room has a single small window at the rear, and these have an exterior shutter. The windows have horizontal metal bars.

This building was used to confine patients who ran away from the asylum. One room was reserved for female patients and the other for male patients. This building was probably built after World War II. There is a second detention building, Structure 16, located near the Southwest Bastion.

Structure:	4
Type:	Standing Building
Use	Kitchen
Location	Along the eastern fortress wall
Dimensions	7.05m wide by 10m long

Description: Structure 4 shows three distinctive building episodes. The original building is a rectangular cut stone structure with a gable roof. This structure may have been built on the remains of an earlier structure as evident by a stone foundation that is not completely aligned with the walls of the building. The south and east walls, and possibly part of the west wall, collapsed or were demolished and were replaced by a concrete and stucco addition. The interior of this structure is painted blue and the floor has blue asphalt/asbestos tile. There is a counter along the east wall. A wood ell was added to the rear of the structure, connecting the building to the eastern defensive wall. This addition contains at least one toilet. On the north facade there is a window in the original structure and two other windows in the wood addition. There are single entrance ways and windows on the west and south facades. These windows are modern glass and metal louvered construction. A fireplace opening has been filled on the west facade and a brick fireplace and chimney were added to the rear of the structure. It appears to have

been closed off, and it is unclear whether this feature was added before or after the wood addition.

There is a 2.5m wide concrete walk along the length of north wall and most of the west wall. An open drain also runs the length of the west wall of the building. This feature is covered once past the structure's south entrance. This drain makes a right turn and flows beneath Structure 8, continuing west to a septic tank (Structure 26), attached to Structure 24, a lavatory building, located near the fort's west defensive wall. There is a low stone wall (Wall 2) about 1.5m from the edge of the walkway on the building's west side. It is about 20m long and runs north from the northeast corner of Structure 8 toward Structure 37. This wall is part of the hospital's landscaping and is visible in the V.E. John photograph immediately behind the row of shrubs shown in the foreground.

Structure 4 was used to prepare meals for the asylum patients, and presumably for the hospital staff as well.

Structure:	5
Type:	Standing Building
Use	Military Guard House and Asylum Storage
Location	Middle of eastern side of fortress
Dimensions:	5.8m wide by 6.85m long

Description: Structure 5 is to the right as one enters the fortress through the main gate. It is shown on the 1723 map as a one of two guardrooms and prisons flanking the entrance on the interior of the fort. The west facade is wood frame construction covered with shakes. There is a single entrance with a fixed louvered transom that extends across the entire facade. There is a concrete bath immediately to the left as one enters. The rear wall is an enclosed arch. Additional stones appear to have been used to enlarge the wall, and a concrete pillar was added in the northwest corner to support Structure 7. During the later years of the leper asylum occupation Structure 5 was used for storage.

Structure: 6
Type: Standing Building
Use: Military Guard House and Asylum Storage
Location: Middle of eastern side of fortress.
Dimensions: 5.9m wide by 6.85m long

Description: Structure 6 is nearly identical to Structure 5, although it does not contain a concrete tub. In addition to an arched rear wall, there is a concrete pillar at the northwest corner, slightly off center and near the rear wall, approximately 1m high that supports a square wood post which helps hold up the floor of Structure 7 above. During the leper asylum occupation, Structure 6 was used for food storage, containing at least two refrigerators and a large screened cabinet for dry goods.

Structure: 7
Type: Standing Building
Use: Administrative Offices and Living Quarters
Location: Along and above east defensive wall
Dimensions: 6.9m wide by 13.6m long (west porch 1.35m wide; east porch 1.85m wide)

Description: Structure 7 was built over the top of the fort's main entrance and Structures 5 and 6. It is a wood rectangular building with porches along the lengths of the east and west walls. The east porch, overlooking the outside of the fort and the main gate, has an additional gabled dormer at its center. Wood planks, which were once covered with corrugated metal, cover the roof. Access to the building is from either end by stone stairways that have intermediate landings. Both stairways have galvanized steel handrails supported by steel posts at the ends of each landing. The posts are capped with a decorative metal finial.

The north stairway is flush against the north side of Structure 5. It has six steps to the first landing where two steps descend from the left side to a concrete walk and an open area between Structures 4 and 5. A low stone wall (Wall 3) connects the steps to

Structure 4. From the first landing there are four steps to the second landing. At the head of the landing is a two stall concrete shower and toilet facility. This structure has a flat roof which extends slightly above the top of the east fortress wall. From the second landing the stairs are reversed and there are seven steps to a third landing. At the top of this landing is a low concrete wall that encloses a wash basin on two sides. This landing provides access to Structure 7 by way of the porch on the west side.

The south stairway begins in the elevated area between Structures 6 and 11. This area is defined by two stone walls (Walls 4 and 5) and a set of steps that connect these two buildings. The stairway to Structure 7 consists of nine steps to a landing that abuts the east defensive wall. From here there is a 90 degree turn to the left and six steps that rise to the level of the porch on the structure's east side.

The porch on the east side is supported by 4 inch posts that are joined mortise and tenon to a 4 by 4 inch base plate that is bolted to the concrete porch pad. Exterior to the base plate the concrete pad slopes slightly to form a drain corresponding to the drip line of the roof. Horizontal boards attached to each support post are curved at their ends so that the overall effect is to create a half circle between the top of each pair of posts, including those supporting the dormer. The porch on the west side of the building has been demolished. The former location of the porch beams and a small wood wall at the south end are all that remain of this feature.

Structure 7 is a wood post and beam construction building. The south and north elevations each have a single shuttered window, and both walls are covered with wood shakes to the peak of the roof. The building is divided into three unequal sized rooms by wood partitions, the central room being slightly smaller than the other two. Each room has a single entrance and a single shuttered window on both the east and west facades. The door on one side is opposite a window on the other side. There are single doorways in the room partitions. The two rooms at the north end of the building served as living quarters for the administrative staff, while the southern room was the hospital's main

office. This room once had a telephone near the entrance on the east side. Two large wood closets built into the south wall were used to store financial and medical records, and other documents pertaining to the hospital's business. These materials were abandoned when the hospital closed, and records salvaged from this room were transported to the St. Kitts, Department of Archives in Basseterre.

Structure: 8
Type: Standing Building
Use: Assembly Hall
Location: Interior Fortress Yard
Dimensions: 6.55m wide by 12.35m long

Description: Structure 8 is a post and beam wood frame building with a concrete floor and foundation. In the center of the floor is a trap door providing access to the drain that originates at Structure 4 and flows beneath the building. The southwest corner is partitioned to form a counter and there is shelving attached to the wall. The structure's exterior has horizontal wood sheathing and a corrugated metal roof. The east and west elevations contain two windows with shutters hinged at the top. The south elevation has an entrance and four shuttered windows, three to the left and one to the right of the entrance. The entrance is approached by a red tile walkway. The north elevation is identical to the south elevation except that the spaces between the windows are open and covered with 3 by 6 inch expanded metal grating.

Structure 8 once served as an assembly and recreation hall. The counter and shelving in the southwest corner was a store where patients could make purchases of personal items such as toothpaste and candy. A railing (now missing) once divided the room lengthwise. This was used to segregate male and female patients, the men using the entrance on the north side of the building, while the women entered through the south side door. This building also once contained a radio and television. According to Mr. Govia this was one of the first televisions on St. Kitts. As the patient population became

older and more infirmed Structure 8 was also used for church services because patients were incapable of walking to the chapel building (Structure 38) just outside Southeast Bastion.

Structure: 9
Type: Standing Building
Use: Clinic
Location: Interior Fortress Yard
Dimensions: 6m wide by 9.25m long (porch 1.85m wide)

Description: Structure 9 is a concrete block building with a concrete slab porch along the south side. Concrete pillars support the porch. There is a single concrete step at the center of the porch. The structure has a low gable roof covered with rolled asphalt sheeting over a wood base. The building is divided by a concrete block partition into two identical rooms with a door between them. Each room has a separate entrance on the south side consisting of a louvered wood door. Flanking each door is a shuttered window opening. The left opening has both a shutter and a glass window. There are two shuttered window openings on the rear of the building, one for each room, and there are identical window openings on opposite ends of the structure.

The west room is white stucco with a white asphalt/asbestos tile floor. There is a white porcelain wash basin in the northwest corner of the room. The east room has a duplicate wash basin in the northeast corner. This room has a red painted concrete floor. Structure 9 was the medical clinic where patients visited with a doctor. The east room was used by a nurse and the west room was the doctor's examination room. A white wood examination table remains in this room.

Structure: 10
Type: Standing Building
Use: Pharmacy
Location: Interior Fortress Yard

Dimensions: Foundation: 3.65m wide by 9.2m long
 Structure: 3.65m wide by 3.75m long

Description: Structure 10 is a small post and beam building centered on the stone and tile foundation of an earlier and larger structure. The structure walls are horizontal boards covered with wood shakes. The roof is covered with corrugated sheet metal. There are single shuttered window openings centered on the north, east, and west sides. The entrance is on the south side where it is flanked by an identical window. There are three steps leading to the entrance. On the interior there is wood shelving and a counter on either side of the windows on the north and east walls. This building was used to dispense medicine to the patients.

 The foundation of Structure 10 measures 9.25m long by 3.65m wide. This foundation has two sets of stairs each with three steps. One of these serves the standing building, while the other set of steps is at the southwest end of the building. Part of the foundation is covered with 4 by 8 inch and 8 by 8 inch red ceramic floor tiles. These also cover an area slightly larger than the footprint of the present structure. Beneath Structure 10 is a small cut stone cellar that appears to have been added to the foundation when the tile floor was installed.

Structure: 1 1
Type: Ruin/Foundation
Use Nurses and Orderlies Living Quarters
Location Along east defensive wall
Dimensions: Foundation--4.6m wide by 12.25m long (east porch 1.75m wide
 [includes defensive wall])
 Attached Bath-- 2.15m wide by 3.4m long

Description: Structure 11 is a complex ruin exhibiting several renovations that used both stone and concrete construction to convert the structure from a single to two story building. The initial structure was a post and beam building built on a cut stone foundation. The front or east elevation of this building has four stone stairways, with

two sets flanking either side of the stairs that were later built for access to the upper story. The two stairs to the right have five steps each while those to the left have six and eight steps. The rear wall of the building is less than one meter from the east defensive wall and has four equally spaced window openings. The north wall, with a single shuttered window, is covered with wood shakes. The building's south wall is poured concrete. There is a window opening at this end of the structure, and there is a concrete bath in the northwest corner of the structure. These are probably later building renovations.

A second story was added to the original structure by building massive L-shaped stone and concrete pillars at the southwest and northwest corners. These measure 4.0m by 1.2m by .48m. A concrete pad was attached to the top of the wall and to the top of the fort's east defensive wall to form a porch at the rear of the building. The front entrance to the upper story is provided by a massive stone stairway originating from the landing formed by the two retaining walls (Walls 4 and 5) connecting Structure 11 to Structure 6. The first nine steps and the landing they lead to are continuous with the retaining wall on the west side of the building. At the landing the stairway makes a 90 degree turn and eight steps ascend to the second floor of the building. The position of the stairway suggests that it may have covered a fifth set of entrance steps to the lower level, and its alignment with the large support pillars suggest that the upper floor had a porch on this side of the structure. There is a second set of ten steps, one side of which is flush with the defensive wall, that is attached to the rear porch at the building's southwest corner. The design and construction of the upper floor of Structure 11, although nearly completely destroyed, may have been similar to Structure 7.

After the upper story was constructed a rectangular concrete shower and toilet facility standing on concrete piers was added to the south end of the building. It is accessible only from the upper story. There is a vertical drain pipe that empties directly into a concrete septic tank directly below.

According to Mr. Govia, the upper story of Structure 11 was living quarters for nurses and orderlies employed at the hospital. The lower floor was used primarily as a changing room for hospital employees.

Structure: 12
Type: Standing Building
Use: Patient Housing
Location: Along south defensive wall
Dimensions: 5.2m by 6m long (porch 1.4m wide)

Description: Structure 12 is a post and beam, wood covered, building with a cut stone porch that has concrete stairs at either end. Because the building sets on a slight slope, there is a single step at the east end and five steps at the west end. The porch supports are 4 by 4 inch wood posts that rest on short (40cm high), and in cross section, slightly larger, concrete pillars. The building sits on concrete piers at each corner; these are 20cm wide by 39cm long by 66cm high. At the west end of the building, the area between the piers is partly filled with mortared cut stones. The structure has a gabled roof covered with corrugated sheet metal.

The south or rear elevation contains two shuttered window openings. The east end has a single window, while there is no window in the west end. Each end of the structure is covered with wood shakes. The building is divided into two equal sized rooms and the front or north elevation, which is covered with vertical boards, contains a single window and door for each of them. This structure was used to house leper asylum patients.

Structure: 13
Type: Standing Building
Use: Patient Housing
Location: Along south defensive wall
Dimensions: 5.1m wide by 6.25m long (porch 1.3m wide)

Description: Structure 13 is virtually identical in size and plan to Structure 12 except that the walls and porch are constructed from poured concrete. The building has a

wood floor. The porch has three steps at the east end and six steps at the west end. The roof consists of wood beams covered with corrugated sheet metal. The gables are covered with horizontal boards. There are no windows, at either end of the building (east and west elevations). There are wood louvers filling the space above all the doors and windows.

The number "8" is painted just below the left window on the front elevation. Above the left and right doors respectively are the numbers "19" and "20". Structure 13 was used to house asylum patients

Structure: 14
Type: Standing Building
Use: Patient Housing
Location: Along south defensive wall
Dimensions: 5.1m wide by 6.25m long (porch 1.3m wide)

Description: Structure 14 is identical in size, plan, and construction to Structure 13. It, however, appears to have been painted pink. The number "22" is visible over the right door. Structure 14 was surely used to house leper asylum patients.

Structure: 15
Type: Standing Building
Use: Patient Housing
Location: Along south defensive wall
Dimensions: 5.1m wide by 6.25m long (porch 1.3m wide)

Description: Structure 15 is identical to Structures 13 and 14. The number "10" is painted just below the left window on the front elevation and the numbers "23" and "24" are respectively painted above the left and right doors.

Structure: 16
Type: Ruin
Use: Detention Building
Location: Along south defensive wall

Dimensions: 5.1m wide by 9.5m long (porch 1.2m wide)

Description: Structure 16 consists of the ruins of a post and beam wood building that was constructed on an elevated stone foundation. The north elevation has a stone stairway consisting of 11 steps that is slightly off center to the building. These ascend to a porch that runs the length of the structure. A 3 inch steel pipe supported a hand rail on one side of the stairway. The building debris indicates that a decorative wood trim ran along the top edge of the porch. Because of the great amount of structural debris, it was not possible to determine if the structure foundation has any internal partitions. Inspection of the ruins suggests that the building was divided into two rooms similar to Structures 12, 13, 14, and 15. Barred windows consisting of vertical 3/4 inch steel pipe placed 16cm apart indicate that Structure 16, like Structure 3, was used to detain asylum patients. This happened most frequently when patients ran away from the hospital. It is unknown whether both Structure 3 and Structure 16 were in use at the same time, and if they were, why two detention buildings were needed. Structure 3 is the more recent building and perhaps it replaced Structure 16 for this purpose. Given the location of Structure 16 among Structures 12, 13, 14, 15, and 18, the building may have been converted to patient housing when Structure 3 was built.

Structure: 17

Type: Standing Building

Use Toilet

Location Interior Fortress Yard

Dimensions: 2.2m wide by 2.45m long

Description: Structure 17 is a small concrete building with a single door and an interior partition separating a shower stall and flush toilet. The building had a flat roof consisting of wood beams. The roofing material is missing but was probably corrugated sheet metal or fiber glass. The entrance is on the north side of the building. There are window openings on the other three sides, each filled with eight decorative concrete

blocks that together form three crosses with intersecting quarter circles. Overall the quarter circles form a pattern of quarter circles at the corner of each window, half circles at the upper and lower center, and two full circles at the crosses to the left and right.

Structure 17 was constructed after 1973 and was built to accommodate the small number of older and progressively more infirmed patients that continued to live at the asylum in the later part of the twentieth century.

Structure:	18
Type:	Standing Building
Use	Patient Housing
Location	Along west defensive wall
Dimensions:	5.1m wide by 9.25m long (porch 1.35m wide)

Description: Structure 18 is a wood post and beam construction building. The porch is cut stone with two sets of stone stairs, one with four and the other with three steps. Two handrails are attached to each stairway. At the foot of the steps the newel posts are 4 by 4 inch wood posts with a tenon inserted into a 4 inch diameter concrete pipe set vertically in a concrete pad. There is a tenon cut at the other end of the newel for attaching the handrail with a mortise and peg. The other end of the handrail was attached to the 4 by 4 inch vertical porch support posts. There is decorative fascia board at the top of the porch. Identical decorative features occur on Structures 16 and 34 and are clearly visible in the V.E. John picture postcard of the asylum. A simple wood bench is attached to the porch between the two stairways. The ends of the bench consists of two boards attached at an angle, with a single narrow board attached at the top to form a back and another wider board to form the seat.

The structure's foundation consists of concrete piers at each corner. There are two additional piers equally spaced on the west side of the structure. The spaces between the piers are filled with cut stone. Both the north and south exterior walls are covered

with wood shakes to the peak of the roof. There is a single shuttered window in the south end, but there is no window in the north end of the building. The rear or west elevation of the structure has three shuttered windows and is also covered with wood shakes. The east or front elevation consists of vertical boards.

A partition, without a door, divides the building into two rooms. There are two doors and two windows for the larger room and a single door and window for the other smaller room. The placement of these openings suggest that the building was designed originally for division into three equal sized rooms. The floor is wood that is covered with linoleum in the larger room. The roof is covered with corrugated sheet metal.

Structure 18 was the last building used to house leper asylum patients, and a single person, Olive Payne, was living here when the hospital closed in 1996. It is not clear whether she used both rooms or only the larger one where there is considerable domestic debris. Among the debris are several suitcases and trunks, a sewing machine, a bed, and scattered personal items including clothing and books. There are small shelves, made from a single board braced at the bottom, on the south and west walls; pieces of wire or twine stretched across the southwest and northwest corners were used for hanging clothes. There are several religious and personal pictures attached to the walls. In the smaller room there is a small cabinet and table and two small shelves attached to the walls. Structure 18, probably because of its more recent occupation, is the best preserved example of patient housing at the site.

Structure:	19
Type:	Stone Foundation
Use	Patient Housing
Location	Along west defensive wall
Dimensions:	5m wide by 6.25m long (porch 1.6m wide)

Description: Structure 19 is a slightly elevated stone foundation with a stone porch that is divided into two bays with a stone partition. There are stone stairs, each with six steps at either end of the porch. This building was probably used for patient housing.

Structure: 20
Type: Stone Foundation
Use: Patient Housing
Location: Along west defensive wall
Dimensions: 4.9m wide by 9.7m long (porch 1.2m wide)

Description: Structure 20 is virtually identical to Structure 19 in construction and plan, except that it is longer with two internal stone walls that divide it into three bays. This building was probably used for patient housing.

Structure: 21
Type: Stone Foundation
Use: Patient Housing
Location: Along west defensive wall
Dimensions: 5m wide by 6.25m long (porch 1.6m wide)

Description: Structure 21 is identical to Structure 19. It too was probably used for patient housing.

Structure: 22
Type: Stone Foundation
Use: Patient Housing
Location: Along west defensive wall
Dimensions: 4.9m wide by 9.25m long (porch 1.2m wide)

Description: Structure 22 is virtually identical in overall size and plan to Structure 20, except that it has no interior partition and the stairway at the north end of the building is perpendicular to the east elevation. Structure 22 was probably used for patient housing.

Structure: 23
Type: Standing Feature
Use: Fountain
Location: Interior Fortress Yard
Dimensions: Inside diameter 2.4m; outside diameter 2.7m

Description: Structure 23 is a concrete circular fountain approximately 70cm deep with a central pillar. The pillar is square from its base until even with the edge of the pool. Above this, the remainder of the pillar is round and extends another 50cm higher than the pool rim. Structure 23 is the most obvious remnant of the decorative landscaping that once characterized the hospital grounds.

Structure: 24
Type: Standing Building
Use: Toilet
Location: Interior Fortress Yard
Dimensions: 2.85m wide by 3.7m long

Description: Structure 24 is a small poured concrete structure with a framed wood roof covered with corrugated sheet metal. The building is divided into two rooms and each room contains two toilets separated by a small partition. There are two identical entrances, one on the north side and one on the south side. There is a horizontal vent near the top of each of these walls. The concrete and metal fence dividing the interior yard in half is attached at the northeast and northwest corners of the structure. The drain that runs from Structure 4 to the septic tank (Structure 26) has a concrete cover where it runs along the north side of the structure. The north half of Structure 24 was for men, while the south half was for women.

Structure: 25
Type: Ruins
Use: Laundry and Bath
Location: Interior Fortress Yard

Dimensions: Foundation-- 3.75m wide by 9.4m long
 Structure-- 3.75m wide by 6.75m long

Description: Structure 25 consists of a cut stone foundation with three equally spaced sets of stairs each having three steps along the south side. This is probably the foundation of an older structure that subsequently has been renovated for use as a laundry and bath. The structure is generally divided into thirds. The eastern third of the foundation was not incorporated into the structure; the center section served as a bath, and the western third was modified for use as a laundry. Cut stones, probably part of the original building, form the lower portion of the west wall. Cut stones, added at a later time, also enclose an oval hearth that was used to heat a large cauldron in the southwest corner. This was used to boil clothing and bedding. The floor is covered with 23cm (8 inch) square red ceramic tile. The rear wall is concrete. Along this wall is a rectangular concrete laundry tub divided into two unequal sized halves. The tub is 77cm high and the individual basins are 33cm deep. The drain is at the northwest corner of the structure. On the exterior it makes a 90 degree turn and then intersects the drain that empties into the septic tank (Structure 26) adjacent to Structure 24. Debris in the area indicates that building was ventilated on two and perhaps three sides with a wood framed transom covered with 5cm (2 inch) wire mesh. Structure 28 (see below) has an identical ventilation system.

 The center section of Structure 25 is occupied by a single large rectangular concrete bath tub 49cm deep. A low concrete wall, ca 1.5m high, separates this area from the adjacent laundry area. It intersects with an identical wall that forms the rear or north wall of the bath and laundry. It is curious, however, that in neither instance does the wall extend to the corner of the building. The unfilled space once may have been a doorway, or perhaps the remainder of the wall was wood construction.

 Structure 25 served as a bath and laundry for female patients, while Structure 28, similar in plan and facilities and located nearby, provided these services for the

male patients. Both buildings in turn are very near Structure 24 which contained toilets for both men and women.

Structure: 26
Type: Standing Building
Use: Septic Tank
Location: Interior Fortress Yard
Dimensions: 2.75m wide by 3.4m long

Description: Structure 26 is a flat concrete slab with three small rectangular concrete covers attached to Structure 24. Two cast iron sewer pipes from Structure 24 empty into the tank, and a vertical cast iron exhaust pipe is connected to Structure 24 by a metal rod. The drain that begins at Structure 4 and passes beneath Structure 8, and to the rear of Structures 9 and 10 eventually empties into the septic tank. The drain parallels the fence that once divided the hospital grounds in half.

Structure: 27
Type: Ruin
Use: Patient Housing
Location: Along west defensive wall
Dimensions: 4.9m wide by 15.4m long (porch 1.2m wide)

Description: Structure 27 consists of an elevated stone foundation with a porch on the east side. There are stone stairways at either end of the porch. The left set of steps were added after the foundation was built while the right set of steps was constructed as part of the foundation. The foundation is identical in shape and plan to Structures 19, 20, 21, and 22. It could not be determined if Structure 27 has interior stone partitions because it is filled with debris from the collapse of the walls and roof. These materials indicate that the building had a gable roof and that both the north and south ends had single windows and were covered with wood shakes. The structure had a wood floor, and the roof was covered with wood shingles. The porch was supported by 4 by 4 inch posts set in concrete. Structure 27 is slightly out of alignment with Structures 19, 20, 21,

22, 30 and 31. This is probably because the buildings were sited at the same distance from the western defensive wall and here the wall curves slightly outward. Structure 27 surely was used for patient housing. Although now a ruin, the debris from Structure 27 is undoubtedly representative of the styles of structures that once stood on the foundations recorded as Structures 19, 20, 21, 22, 30, 31, 33, and perhaps 37.

Structure:	28
Type:	Ruin
Use	Laundry and Bath
Location	Interior Fortress Yard
Dimensions:	Foundation-- 3.75m wide by 14.2 m long Structure-- 3.75m wide by 7.75m long

Description: Structure 28 is a combination of stone, poured concrete, concrete block, and wood construction. Structure 25 is similar in plan to this building and both were used as laundry and bath facilities. Structure 28 was constructed on an earlier stone foundation, about half of which was not converted for washing clothes and bathing. Debris in the area suggest that the building was covered with corrugated fiber glass rather than metal as found with most other structures at the fort. There are two sets of steps on the south side, one of which is connected to the unused half of the foundation and the other of which is for entering the bath area. Directly opposite the south steps on the unused half of the foundation is another set of steps on the north side of the structure. Attached at the northeast and southeast corners are, low, short concrete walls or projections, measuring 1.32m long by 14cm wide and 14cm high. Each projection has a series 2cm diameter holes slightly off line from one another every 16cm. The purpose of the projections is undetermined. A large number of discarded steel frame hospital beds are stacked at this end of the building.

The east, west, and north or rear walls are concrete block construction. The front or south elevation is a combination of cut stone and concrete block construction. The partition between the bath at the middle of the building and the laundry at the west

end also is concrete block construction. There is an entrance to the bath on the south elevation, and there are single fixed louvered windows next to the door and on the building's north side. The bath consists of a single, large, rectangular poured concrete tub that has a single step at the south end.

The laundry area at the building's west end has a single entrance on the south side. Ventilation was provided by a 50cm high wood framed opening covered with 5cm (2 inch) rectangular wire mesh. This was attached to the final course of concrete blocks on three sides of the facility. Similar construction also occurs on Structure 25. There is a large concrete laundry tub divided into three sections along the interior north wall. It stands 92cm high and each basin is 30cm deep. These drain through the north wall, but the complete course of the drain was not detected.

Structure:	29
Type:	Standing Structure
Use	Sally Port
Location	Along west defensive wall
Dimensions:	Facade-- .85m wide by 4.6m long
	Tunnel Cover--1.7m wide by 2.8m long
	Tunnel -- 1m wide by 5.8m long

Description: The Sally Port is an original feature of the fortress, and is clearly shown on the 1723 plan of the fort. It is an arched passage way that penetrates the western or seaward defensive wall. On the fort's interior, the structure consists of an arched facade approximately 4.6m wide and 85cm thick, joined to a narrower archway approximately 1.7m wide and 2.8m long. The tunnel is 1m wide and including the thickness of the defensive wall has a total length of 5.8m. There is a small square iron bar at the lower left of the interior opening and an iron pintle to the right and slightly higher. The exterior opening in the defensive wall is slightly recessed with the arch of the opening consisting of cut, curved stones.

Structure: 30
Type: Stone Foundation
Use: Undetermined, probable patient housing
Location: Along west defensive wall
Dimensions: 4.9m wide by 15.55m long (porch 1.2m wide)

Description: Structure 30 consists of an elevated stone foundation with a porch along the full length of its east side. There are stairways, one with five steps and the other with six steps, at either end of the porch. Structure 30 is nearly identical to Structure 27, except that there are four interior partitions dividing the building into five equal sized bays. Structure 30 was undoubtedly used to house patients during the period of occupation as a leper asylum.

Structure: 31
Type: Stone Foundation
Use: Undetermined, probable patient housing
Location: Along west defensive wall
Dimensions: 4.9m wide by 15.85m long (porch 1.2m wide)

Description: Structure 31 is nearly identical to Structure 30. The primary difference is that there is no set of stairs at the structure's north end, because the slope here makes a full set of steps unnecessary. There is, however, a stairway, attached to the building's northeast corner that connects it with the stairs leading to the porch of Structure 33. It is undetermined how many steps it has because most of the stairway is buried.

Structure 31 was surely used to house asylum patients. This building is center right in the V.E. John picture postcard of the asylum, indicating that it was a post and beam construction building.

Structure: 32
Type: Stone Foundation
Use: Probable arsenal
Location: Along north defensive wall

Dimensions: undetermined

Description: Structure 32 is visible as portions of a stone foundation exposed at the west and east end of the structure. No evidence of either the south or north wall is evident. The proportions of the building indicated by the visible walls suggest that the north wall of the building was either destroyed or is buried by Structure 33's south wall. Determining this relationship would require further archaeological excavations. A single test pit placed near the center of Structure 32 shows that this building had a hard packed mortar floor and at least one interior support wall or pier. Associated sediments indicate that structure burned perhaps more than once. Structure 32 is located at approximately the position of the Arsenal shown on the 1723 map of the fort, and artifacts associated with the floor indicate that structure was in use during the eighteenth century.

Structure: 33

Type: Stone Foundation

Use Undetermined, probable patient housing

Location Along north defensive wall

Dimensions: 5.2m wide by 15.8m long (porch 1.2m wide)

Description: Structure 33 is a cut stone foundation, with a south facing porch running the length of the building. The building is similar in plan to Structures 27, 30, and 31, except that it has no internal partitions. Its south elevation also is much higher because of how the building was sited against the slope in this area of the fort. There are stone stairways, one with four steps and the other with five steps, at either end of the porch. This building is shown in the far right rear of the V.E. John photograph of the asylum, and was used to house hospital patients.

Structure: 34

Type: Ruin

Use Patient housing

Location Along north defensive wall

Dimensions: 4.9m wide by 6.5m long (porch 1.6m wide)

Description: Structure 34 is the ruin of a post and beam wood construction building that is situated within the west end of the cistern catchment area. Structure 34 is built on poured concrete L-shaped piers that support the structure at each corner and at the corners of the porch. These piers are 80cm by 75cm and 20cm wide. The piers at the front of the building have an 8cm wide lip for supporting the rear of the porch. The corner porch piers are smaller than those holding up the primary structure, measuring 53cm by 60cm by 20cm wide. Additional support of the building and porch are provided by rectangular piers, 53cm by 20cm, situated at the midpoints of the north and south walls.

The west and east facades each contain single shuttered windows and are covered with wood shakes to the peak of the roof. The roof is horizontal wood boards, many of which are now missing, and which in turn were once covered with corrugated metal sheets. The building's front or south facade is covered with vertical wood boards. This elevation has a single centered window opening, flanked by doorways on either side. The rear or north facade, which is completely collapsed, exhibits two shuttered windows. The porch, which is also completely collapsed, has a decorative fascia board, identical to those noted on Structures 16 and 18, and clearly shown on the building (probably the kitchen, Structure 4) in the lower right corner of the V.E. John photograph. Structure 34 is shown in the far right center of this image. Patients were housed in this building. The structure's location in the cistern's catchment basin suggests that it was built after a water pipe from an external source was added to the hospital and the cistern was no longer needed as the hospital's primary water supply.

Structure: 35

Type: Standing Building

Use Cistern

Location Along north defensive wall
Dimensions: 5.25m wide by 14.5m long

Description: Structure 35, as evidenced by the 1723 plan of the fortress, is an original building associated with the military occupation. It is an arched structure approximately 2m high. The cistern is at least 4.5m deep, and was filled by water collected from the surrounding catchment which emptied into the cistern through a slot at the base of the west end. Access to the structure's interior is provided by a square opening centered at the top east end. There is a set of steps at the southwest corner of the structure for reaching the opening at the top. These steps were clearly added after the original construction. At the east end of the structure there is a stone wall connecting the northeast corner of the cistern to the south wall of the catchment basin and to the stairway between Structures 36 and 37. Although a wall here was surely part of the original construction, the present wall was added at a later date as indicated by its articulation at either end.

Structure: 36
Type: Ruin
Use Patient housing
Location Along north defensive wall
Dimensions: ca 5m wide by 12.5m long (porch 1.8m wide)

Description: Structure 36 is the ruins of a two story, post and beam wood building constructed on concrete piers, resting on separate concrete footers. The piers are 2.5m high, by 60 cm wide and 25cm deep placed on 25cm by 75cm footers, forming an 8cm lip at the base of the pier. There were eight piers supporting the upper floor. Each story had an attached porch. On the lower story, the porch landing was a poured concrete slab with four reinforced concrete posts for supporting the upper story porch. The front piers are connected at the top with horizontal pieces of reinforced concrete. There are wood hand rails between the piers. The stone retaining wall forming the north side of the

cistern catchment was altered to attach the concrete porch and posts. The upper story porch was made of wood and was reached by a set of 13 wood steps attached at the west end of the building.

The west and east ends of the structure are covered with horizontal wood boards, while wood shakes were used from the top of the wall to the roof peak. Windows that could be observed in the rubble consist of interior wood louvered shutters, with external solid wood shutters. This is the only structure at the fort that treats the windows with two sets of shutters. Examination of the ruins indicate that both the upper and lower levels were constructed with three bays and these in turn were each divided into two rooms. Thus the building had single rooms for 12 patients, six on each floor. Each room had its own entrance and a window on the south elevation. The building's size and number of rooms surely explains why the word "Hotel" was scratched into the southeast concrete porch pier.

Structure:	37
Type:	Foundation
Use	Library
Location	Along north defensive wall
Dimensions:	5m wide by 9.4m long (porch 1.6m wide)

Description: Structure 37 is an elevated stone foundation with no interior partitions. There are three massive cut stone stairways on the south side of the building that ascend to the structure's porch. There is a fourth set of steps that connects the building to the east wall of the cistern catchment and lead to Structure 36.

Structure 37 is unusual for its massive stairways, suggesting that it was not originally built for patient housing. According to Mr. Govia, Structure 37 was used as a library in the later period of the asylum's occupation.

Structure:	38
Type:	Standing Building

Use	Chapel
Location	Outside Southeast Bastion
Dimensions:	Structure-- 6m wide by 12m long Portico-- 1.9m wide by 2.15m long

Description: Structure 38 is the chapel building, and the only identified hospital building located outside the fortress wall. It is a concrete building with a covered wood entrance portico. The roof is a gambrel construction with kingposts and common purlins. The kingposts extend below the cross purlin and are capped with a decorative finial. The roof framing rests on wood buttresses attached to the concrete walls. The roof and portico are covered with corrugated fiberglass sheets.

The east and west elevations are identical, with each having three window openings. Although now missing or badly damaged, the windows are paired, wood louvered construction that pivot at the midpoint of the opening. A third of the upper right and left of each window is solid wood, bordered by a curved plain molding so that when both windows are pulled closed there is an arch formed at the top of the window. On the west elevation is a dedication stone set in the concrete wall. It reads: " This stone was laid; By His Excely [Excellency] Sir Eustace Fiennes Bart; Governor of the Colony; The 21st April 1926".

The rear or south elevation of the chapel has a large rectangular opening now enclosed with horizontal boards. On the interior of the building this forms a shallow niche above the altar. The eave to the roof peak is covered with vertical boards. The chapel entrance at the opposite or north end of the building is wood construction built as a separate attachment to the building. It rests on a poured concrete slab with a large diamond pattern scratched into the surface. The portico is support by 13cm square wood posts that have had their edges removed at a 45 degree angle to form an octagon cross section for 1.8m of their length. The space between the top of the posts are filled with vertical boards cut to form a simple semi circular arch. The portico has a simple gable roof. The eave at the front has a small horizontal overhang to deflect rain water. Above

the eave of the portico there is vertical board sheeting while on this end of the chapel itself the wood is attached horizontally. Attached at the peak of the portico roof is a wood cross. The base of the cross has a decorative finial. A small rectangular cupola with a gable roof sits atop the portico. It has fixed wood louvered sides.

The chapel has a concrete floor. There is an L-shaped wood partition forming a small room immediately to the left of the entrance in the northeast corner of the building. This is attached to the east wall at the center post of a window, suggesting that the room was added at a later date. The altar area is an elevated concrete pad with a single step on three sides; it is centered below the wood filled niche on building's south end. There are two wood rails and kneelers with an opening between them attached to the floor 1.6m from the altar pad. Scattered about the chapel's interior are the complete or partial remains of eight wooden pews and a wood pulpit.

Other Structures and Architectural Features

Besides the buildings that were assigned structure numbers there are a variety of additional features that define the fabric and character of Charles Fort. These were recorded individually or in conjunction with data gathered on particular buildings. These features include several stone walls associated with the fort's military occupation, some of which were subsequently modified during the period of the leper asylum. Among these are a low stone wall that encloses the Northeast Bastion (Wall 1). This wall was further altered with concrete during the asylum's use, subsequently followed by the addition of a fence made of metal posts, wood, and sheet metal to confine animals (probably pigs) after the abandonment of the asylum. A low wall also enclosed the Southeast Bastion; it is exposed for about 2m where the south defensive wall meets the bastion (Wall 6). Additional walls attached to the Southwest and Northwest Bastions represent both rebuilding during the military occupation and new construction (e.g., Wall 8) to enclose the fort's interior as these bastions were undermined by erosion of

the sea cliff and began to break apart. The walls enclosing the cistern's catchment basin (Walls 9, 10 and two additional unnumbered walls) are also associated with the military occupation of the fort, and there were no major changes to them except that the east wall was increased in height.

Between the west end of Structure 33 and the sea cliff is a large irregular concrete pad. This may have been the place of a warning light for boats that is reported to have been located within the fort. There is also considerable amounts of bottles and other debris that cascade down the sea cliff at this location, suggesting that this may have been a primary dump during the asylum occupation.

There are three distinctive fences associated with the leper asylum.

Except for the two sets of concrete posts flanking the entrance road there is little evidence for the barbed wire fence which is reported to have enclosed the area outside the front of the fort. The second fence, which ran from Structure 5 to the midpoint of the west defensive wall divided the interior of the fort into north and south halves respectively reserved for male and female patients. This fence consisted of steel posts set in a concrete foundation (Wall 7); wire mesh was hung from the posts. Where convenient, one wall of buildings such as Structures 8, 9, 10, and 24 were incorporated into the fence. A concrete drain which begins at Structure 4 and runs beneath Structure 8 parallels the fence for nearly its entire length. The third distinctive fence is a steel picket installation that begins at the midpoint of the west defensive wall and runs along the top of this wall and the north defensive wall ending at the Northeast Bastion. This served as a security fence on the side of the fortress reserved for male patients. No comparable fence occurs on the side of the asylum devoted to female patients.

Also noted within the interior of the fort are occasional alignments of large cobbles forming single or parallel lines or closed geometric figures. Because the vegetation was incompletely removed across the open areas within the fort, the number,

distribution, and variability in these features is unrecorded. The rocks surely formed borders along paths and gardens. These are clearly shown in the picture postcard of the asylum taken by V.E. John in the early twentieth century.

The fort's entrance is a 2m wide opening with a gothic arch at the center of the east or landward facing defensive wall. This is the original entrance to the fort. On the right hand wall about midway through the corridor is a commemorative white marble plaque with black letters. It reads: " This plaque records the gratitude of ; the inmates of the Hansen Home; to their benefactor; Wilford Duncan Thompson; who bequeathed generously to; this institution at his death; in Trinidad on 12th July 1966". The arch or transom of the entrance is wood framed with a horizontal lintel and vertical center post. The two spaces are filled with open, evenly spaced posts radiating outward at about 45 degrees. Above the lintel is a wood painted sign that reads "Hansen House". Access through the entrance is consists of a two piece wood gate attached by pintels in the stone walls. The lower third of each gate is solid, while the upper portion is filled with evenly spaced, open, vertical wood posts. On each of the lower panels faint painted signs appear to read, "Out of Bounds". To the middle right hand side of the right gate is a wood painted sign that reads, "Charles Fort; Founded in 1672 Converted; into a leper asylum in 1890".

Test Excavations

At Charles Fort a total of 20 1 by 1m test units were excavated. Seven units, not tied to the excavation grid, are numbered and designated Test Pits, while the remaining excavations are designated by their grid coordinates. As described below, excavations were made in five areas of the site. In all cases sediments were removed in 10cm arbitrary levels, measured from datum (100m), or where warranted, in stratigraphic levels. The primary site datum is the Ordinance Survey Bench Mark 70KT56 located within the Northeast Bastion. For the purpose of mapping and archaeological excavations

this was designated with the coordinates 500North/500East and assigned an arbitrary elevation of 100.0m. The sediments were screened through quarter-inch mesh hardware cloth and artifacts were placed in bags appropriately labeled for each excavated context. Scale drawings and photographs of the excavation floors and stratigraphic profiles were made as needed. Upon completion, all the excavation units were lined with porous landscape cloth and backfilled.

Northeast Bastion

Six test pits were excavated in the Northeast Bastion (Table 3). Two pits initially were placed adjacent to the interior and exterior wall of Structure 2 near a suspected doorway. Test Pit 1 was excavated in five 10cm levels to a depth of 99.20m. The second test pit was dug to 99.50m where a cut stone floor was exposed in the eastern half of the unit. Test Pits 3, 4, 5, and 6 were then used to follow this floor approximately 4m east to the fortress wall. Each test pit was excavated in a single level to approximately 99.70m.

Table 3. Test Pits excavated in the Northeast Bastion.

Unit	Level No.	Beginning Elevation	Final Elevation
Test Pit 1	1	99.81	99.70
	2	99.70	99.60
	3	99.60	99.50
	4	99.50	99.40
	5	99.40	99.30
	6	99.30	99.20
Test Pit 2	1	99.88	99.70
	2	99.70	99.60
	3	99.60	99.50
Test Pit 3	1	99.87	99.70
Test Pit 4	1	99.85	99.70
Test Pit 5	1	99.95	99.69
Test Pit 6	1	99.97	99.69

The stone floor is associated with the period of the fort's military use and thus dates no later than the mid nineteenth century. The floor, which is about 4m wide,

presumably occurs along the interior of the entire bastion, but this is unconfirmed by archaeological investigations. The test excavations also demonstrate that Structure 2 was built on top of the stone floor, clearly demonstrating its later date. It is unlikely that Structure 2 is associated with the military occupation of the site because its east wall is less than a meter from the defensive wall and blocks access to one of the firing positions.

Southeast Bastion

Four test pits were excavated in the Southeast Bastion to determine if there was a stone floor comparable in size, construction, and placement to the one uncovered in the Northeast Bastion (Table 4). Two contiguous pits were placed perpendicular to the defensive wall while the other two pits were excavated 2m toward the interior of the bastion. These excavations demonstrate that a stone floor also occurs on the interior of the Southeast Bastion. Where exposed by excavation, however, the stones have been removed. Only further excavations could determine whether the entire floor has been damaged.

Table 4. Excavation Units in the Southeast Bastion

Unit	Level No.	Beginning Elevation	Final Elevation
419-420N/ 540-541E	1	99.96	99.72
419-420N/ 541-542E	1	99.97	99.80
419-420N 544-545E	1	100.01	99.90
419-420N 545-546E	1	100.07	99.60

Structure 32

Surface inspection and the location of the Arsenal shown on the 1723 map of the fort suggested that Structure 32 might represent a building associated with the

eighteenth century military occupation of the site. Test Pit 7 was placed near the center of this building to gather artifacts and stratigraphic information to determine if this was the case (Table 5).

Twelve levels excavated in this unit revealed six distinctive deposits, a segment of the structure floor, and a portion of a stone floor, pier, or partition within the building. The upper 70cm of fill consisting of three strata represent nineteenth and twentieth century deposition. Below these sediments is a soil layer containing abundant ash and charcoal suggesting that fire destroyed the structure. Below this deposit was a hard packed floor consisting of mortar and small pebbles; also exposed along one side of the excavation were mortared stones representing an interior support pier or partition. The ash and charcoal laden sediments, the floor, and deposits below the floor contain artifacts dating to the eighteenth century, indicating that this building is associated with the fort's military occupation.

Table 5. Test Pit 7 levels excavated in Structure 32.

Unit	Level No.	Beginning Elevation	Final Elevation
Test Pit 7	1	94.61	94.50
	2	94.50	94.40
	3	94.40	94.30
	4	94.30	94.20
	5	94.20	94.10
	6	94.10	94.00
	7	94.00	93.90
	8	93.90	93.80
	9	93.80	93.70
	10	93.70	93.62
	11	93.62	93.52
	12	93.52	93.42

Structure 35

Structure 35 is the large cistern located on the northern side of the fortress. Historical data indicate that this is one of the original buildings associated with Charles Fort. Initially a test pit was placed at the western end of the structure in the hope of

recovering artifacts relating to the time of its construction and history of use. The test pit revealed a mortar covered stone catchment very near the surface of the excavated sediments. Subsequently, an additional three complete and four partial units were excavated to obtain a cross section of the catchment and to show its articulation with the cistern (Table 6).

There is a drain, approximately 20cm wide and 5cm high at the base of the west end of the cistern. The catchment area drops in elevation approximately 50cm over a distance of 4.5m from its northern edge to the drain, while dropping about 15 cm over a distance of 3m from its southern edge. The catchment consists of rounded large cobbles and small boulders that are plastered over with mortar to form a smooth surface. This surface was replaced at least once during the use of this feature. Artifacts recovered from the excavation all represent deposition following the abandonment of the cistern. This likely corresponds to the time piped water from an external source was introduced to the leper asylum.

Table 6. Excavation units placed adjacent to Structure 35.

478-479N 455-456E	1	95.35	95.17
479-480N 455-456E	1 2	95.29 95.20	95.20 95.19
478-479N 456-456.4E	1	95.35	95.19
479-480N 456-456.33E	1	95.32	95.05
480-481N 456-456.35E	1	95.37	95.09
480-481N 455-456E	1	95.31	95.24
481-482N 455-456E	1	95.34	95.14
481-482N 456-456.79E	1	95.39	95.14

Defensive Ditch

The 1723 map of Charles Fort indicates that a defensive ditch surrounded the fort on the north, south, and east sides (the west side faces the sea). This feature would have filled with debris over the course of the fort's use as a military post, its abandonment, and its subsequent use as a leper asylum. A single pit with coordinates 468-469N/513-514E was placed approximately 5m from the east defensive wall and approximately 10m north of the entrance gate to investigate the ditch deposits.

The pit was excavated in 17 arbitrary levels (Table 7). Recovered artifacts suggest that most of the fill accumulated since the late nineteenth century. Excavation of this pit was halted when the remains of an adult human (Burial 1) were encountered,

Table 7. Excavated levels in Unit 468-469N/513-514E.

Unit	Level No.	Beginning Elevation	Final Elevation
468-469N/ 513-514E	1	96.37	96.20
	2	96.20	96.10
	3	96.10	96.00
	4	96.00	95.90
	5	95.90	95.80
	6	95.80	95.70
	7	95.70	95.60
	8	95.60	95.50
	9	95.50	95.40
	10	95.40	95.30
	11	95.30	95.20
	12	95.20	95.10
	13	95.10	95.00
	14	95.00	94.90
	15	94.90	94.80
	16	94.80	94.70
	17	94.70	94.60

representing the body from approximately the middle of both femurs to the middle of both tibia-fibula. The bones indicate that the individual was buried extended with the head to the north. The burial was placed in a shallow pit that originates 100 to 120cm below the present surface. Too little of the burial was observed to be sure of its age and cultural affiliation. Because of the depth at which it was encountered and because the

cemetery area for the leper asylum is located elsewhere, it seems most likely that the interment is a European soldier. The remains could represent an African, but this seems less likely given the segregation that occurred in mortuary practices during the colonial era. Once recorded, none of the bones were recovered for further analysis and the excavation was backfilled.

Discussion

The leper asylum is generally organized into an administrative and food service area; a patient treatment and patient hygiene area; separate areas to house male and female patients; and a cemetery and church area. The administrative and food service area consists of structures located at the fort's east side and entrance. This includes the kitchen (Structure 4), storage facilities (Structure 5 and 6), and administrative facilities and staff quarters (Structures 7 and 11).

The patient treatment and hygiene area includes Structures 8, 9, 10, 24, 25, 26, and 28. These structures form a line of buildings that separate the north or male side of the hospital from the south or female side. Among these buildings are baths, toilets, and medical treatment areas that are situated for efficient disposal of sewage through the drain that runs from Structure 4 to Structure 26 while providing separate access by men and women. The separation of male from female accommodations is further punctuated by the fence that was constructed as barrier between them. Where not incorporated into buildings, this fence consists of a continuous concrete foundation with piers or projections every 8 feet. At these points are 8 foot long 2 inch T-shaped angle iron posts braced by 1 1/4 inch angle iron anchored to the concrete piers. Wire mesh now completely missing was hung between the posts. There was a small segment of fence and a gate (both now missing) that connected Structure 5 with Structure 8. The fence, because it has a concrete base, probably dates to a later time in the asylum's

development, and this, in turn, suggests that it may not have always been the policy to physically separate men and women.

Curiously, between Structures 10 and 25 are concrete steps on either side of the fence's foundation. According to Mr. Govia, the steps were installed to make it easier for the patients to step over the foundation after the fence was removed. This occurred when the patient population had become so small and so old that keeping the sexes segregated was no longer deemed necessary.

The female housing area was on the south side of the fortress grounds and included Structures 12, 13, 14, 15, and 18. Stone foundations representing Structures 19, 20, 21, and 22 are also within this area and presumably once supported housing for the female patients. In addition to these structures, a single toilet building, Structure 17, and the small fountain, Structure 23, are located in this area. It is known that Structure 17 was constructed specifically to meet the needs of the last few patients that lived at the hospital in the 1990s and after housing was no longer segregated. It is presumed that separate bath and toilet facilities for men and women continued to be maintained but it is not known which specific buildings served these functions. The open area between the housing along the west and south fortress walls and the service buildings bisecting the fort's interior were used for walkways and gardens. The gardens, as shown in the postcard taken by V.E. John, included ornamental plants and flowers, but also were used to grow fruits and vegetables.

The north or male half of the asylum compound consists of ruins or foundations of Structures 1, 2, 3, 27, 30, 31, 33, 34, 36, and 37. These generally are aligned along the west and north fortress walls. Other buildings in this area, such as Structures 29, 32 and 35, are associated with the forts military occupation. The number, size, and architecture of the men's housing suggest that more men than women may have lived at the hospital. Except for Structure 3, none of the buildings used to house men are standing structures. In contrast there are five standing patient dwellings on the female

side. This suggests that as the patient community dwindled and females outnumbered males, housing for males was abandoned and allowed to deteriorate. Given recent severe hurricane damage to Structures 34 and 36, it is also possible that storms have a tendency to cause greater damage on the northern and western side of the site than elsewhere on the hospital grounds. The open area defined by the service buildings, administrative structures, and men's housing, just as on the female side, was filled with gardens and walkways as so dramatically shown in the picture postcard taken by V.E. John.

Male patients clearly were regarded as a greater threat to run away from the asylum than were female patients. For this reason a steel picket fence was constructed on the men's side of the compound along the top of the fort's defensive wall from the middle of the west wall to the east end of the north wall. The fence ends at the Northeast Bastion suggesting that Structures 1 and 2 were not in use when the fence was built. The fence is quite formidable. The pickets are recurved in cross section. They are 8cm wide and 131cm long and are attached to metal hangers every 8cm. Additional concrete was poured wherever the fortress walls were inconveniently located or too deteriorated to install the fence. For example, the fence was built on a concrete wall that cuts off the Northwest Bastion. It is not clear why the detention building, Structure 3, was built in the Northeast Bastion since the fence does not enclose it. Perhaps it was built after most patients were moved to the previously all female side of the compound. By building this structure at the opposite end of the compound it may have helped emphasize the unpleasant consequence of running away and the social separation that would result from those who did. Undetermined is the relationship of the use of this building with Structure 16 which also was built and used as a detention facility.

The cemetery and church area are located outside the fortress walls. These areas, however, were enclosed with a barbed wire fence. This fence, as evidenced by iron post hooks, was attached to the inner set of two concrete posts that straddle the road leading to

the fort's entrance gate. These posts are square and over 2.25m high. The lower 100cm is 46cm square, tapering to the upper portion that is 100cm long and 28 cm square. The final 25cm is an equilateral pyramid 25cm on a side. This forms a 1.5cm ledge around the top of the post. Because no other fence posts are evident, it is not clear how much area the fence enclosed or precisely where it ran in relationship to the fortress walls. It probably ran no more than about 50m north of the gate posts before making a right angle turn then running west where it was attached to the base of the northeast bastion, or ran an undetermined distance parallel to the north fortress wall until reaching the sea cliff. From the gate posts south, the fence probably ran 150 to 200m to the asylum's property line about 100m south of the south fortress wall. The fence then ran along the property line to the sea cliff.

The second set of concrete posts, as evidenced by pintles in each one of them, was used to hang a double swinging gate. These posts are rectangular at the base measuring 1.58m long by 28cm wide. In profile, the posts are 1.86m high on one side and 43cm high on the other side. From this point, the side slopes upward to a point 43cm below the top of the post. The posts, like the first set are capped with a pyramid, in this case 22cm on a side and 26cm high, forming a narrow ledge where the cap sits on top of the post. The area between the two sets of posts, according to Mr. Govia, defined a space where asylum patients and their visiting friends and family could communicate but were not allowed to come into contact with one another.

The church or chapel, designated Structure 38 and located near the Southeast Bastion, was thus enclosed by the barbed wire fence. This building, as clearly indicated by its dedication stone dated 1926, was built well after the asylum was established. Its use also diminished as the patient population became older, more infirmed, and found it more and more difficult to walk the short distance to services held there. As this occurred, Mr. Govia, indicated that the Assembly Hall, Structure 8, frequently was used

for church services. There is no indication, however, that use of the chapel ever completely stopped until the asylum was closed in the 1990s.

The exact size of the asylum's cemetery is not known. As best as could be determined, it is defined by an area approximately 30 to 50m wide running the entire length of the fortress's south wall, a distance of nearly 100m. It is clear that none of the graves are marked, thus making it difficult to estimate how many individuals are interred in the cemetery. The last burial probably occurred in the late 1980s or early 1990s. Mr. Govia indicated that during his 21 year tenure, that 84 individuals were buried. This figure and the general size of the area suggest that there could be 200 to 500 burials in the cemetery. There are some documents relating to deaths at the hospital, but unless a more complete record is found, only archaeological investigations could determine the actual size of the cemetery and the number of burials it contains.

The asylum's southern boundary was another 100m south of the cemetery. According to Mr. Govia, this area was used to grow produce by the asylum's patients. Part of this area was sold to private individuals in the 1980s and 1990s and now contains three modern houses.

The portions of Charles Fort that are unquestionably associated with the military occupation include the guard houses, Structures 5 and 6, the sally port, Structure 29, the arsenal, Structure 32, the cistern, Structure 35, and all the bastions and their connecting fortress walls. These features exhibit a variety of modifications that suggest episodes of rebuilding and repair, some of which were done in conjunction with the conversion of the fort to a leper asylum. Although these later changes, such as the concrete poured to build the steel picket fence on the top of the west and north defensive walls, are not hard to detect, earlier modifications associated with the eighteenth and nineteenth century military use presently are more difficult to determine except in a very general manner. Most of these changes likely were implemented following, or in anticipation of, hostilities with foreign adversaries. Military engagements with the

French in 1690, 1706, and 1782 most likely precipitated repairs and renovations of the fortress walls and other features. There is little evidence to indicate that additional military buildings, besides the ones shown on the 1723 map, were constructed within the fort. French maps depicting the siege of Brimstone Hill raise the possibility of one or two additional structures in the fort's interior, and some asylum buildings are built on earlier foundations that could be the former locations of eighteenth and nineteenth century military structures.

On the 1723 map of Charles Fort, the Northeast Bastion has four embrasures, two directing fire west along the north wall and two directing fire south along the east wall. Presently there are single embrasures at these locations, and there is now a single embrasure in the north bastion wall and two in the east wall where none are shown in 1723. The Southeast Bastion shows similar differences from the 1723 map. Where there was once two embrasures directing fire along the east wall, only a single filled opening is now evident. Similarly, there is now only a single embrasure directed along the south wall.

The Northwest Bastion embrasures also show changes from the 1723 configuration. There are three embrasures on the north facing wall where the 1723 plan shows none; and there is a single embrasure on the east facing wall where the 1723 plan shows two. The west or seaward facing portion of the bastion, showing three embrasures in 1723, has been completely lost to erosion. The Southwest Bastion shows even more severe erosional damage and details of changes that occurred to its embrasures have not been fully examined from the remaining segments and the debris on the beach below.

The defensive walls themselves also show modifications. Only the most obvious changes were recorded in 2000, and none were evident for the north and east walls. The walls of the Southeast Bastion and an undetermined portion of the connecting south defensive wall, however, were nearly doubled in width at sometime in the fort's history.

As observed in the Southeast Bastion, an outer wall 86cm thick was constructed flush against the original inner wall that measures 110cm thick, together making a wall nearly 2m thick. The interior of the south wall, in addition, is buttressed with a series of seven, short, stepped bracing walls. All, or at least a large portion, of the west or seaward facing defensive wall also may have been rebuilt. As shown on the 1723 plan this wall has a slightly irregular outward curve. A French siege maps from 1782 indicates that near its midpoint the west defensive wall takes a short, nearly right angle turn that remains evident today (see Figure 2). Additional evidence for rebuilding is the stone work on the interior of the southern half of this wall. Here the stonework consists of 12 courses. The upper three courses are large subrounded cobbles; below this are five courses of smaller subrounded but more irregularly shaped cobbles. The base of the wall consists of four courses of large rectangular cut stones. The total height of the wall is 2.6m. Smith (1995:77) indicates that small irregular block masonry was succeeded by squared block masonry at the end of the eighteenth century at Brimstone Hill. A similar pattern is expected at Charles Fort, but the stone work of the interior west wall does not conform to this pattern.

What is probably the arsenal (Structure 32) has been completely demolished, but archeological evidence shows that much of its foundation and the associated contents are intact. The cistern and its associated catchment are comparatively unmodified features of the original fort, as is the sally port (Structure 29). No surface evidence for the magazine or the two buildings shown near the Northwest Bastion was detected. To determine their locations and degree of preservation would require further archaeological studies. The interior stonework of the guardroom and prison, identified as Structures 5 and 6, suggests that their upper walls have been rebuilt.

Summary and Conclusion

Charles Fort is characterized by two distinctive and different periods of occupation, both of which were documented and assessed by mapping, individual structure descriptions, and archaeological test excavations. The fort's defensive walls, bastions, and five additional features (the cistern, the sally port, the two guard houses, and the probable arsenal) reflect the site's original use as a British Colonial military post that dates from 1670 to 1854. Additional archaeological studies might locate the magazine building and perhaps other military related structures. Present evidence, however, suggests that few, if any, other eighteenth or nineteenth century military buildings exist at the site. There is evidence for considerable renovation and rebuilding of some of the fort's bastions and defensive walls. The specific number and sequence of these alterations are undetermined. The Southwest and Northwest Bastions have been seriously damaged by erosion of the sea cliff on the west side of the site. Their total destruction appears certain, and erosion will soon threaten removal of the fort's western defensive wall.

In 1890, Charles Fort was converted to a leper asylum and was renamed Hansen House. The hospital closed in 1996 and the site was abandoned for occasional use as local gardens and pens for goats and pigs. Most structures visible today are attributed to this period in the fort's history. This includes 36 distinctive structures among which are the cistern and guard houses from the military occupation that were modified or adopted for hospital use. The present configuration probably was established no later than the early 1950s. In addition, the hospital occupation altered or changed segments of the bastions and the defensive walls. The age and construction sequence of buildings erected after 1890 is poorly understood. The earliest buildings were probably built on stone foundations, but variability in the size of the foundations and clear evidence for more recent buildings, such as Structures 10, 25, and 28 placed on older foundations,

makes it difficult to resolve their chronological relationships. Concrete buildings, walls, foundations, and piers could all date as early as the 1920s, but more likely represent a considerable span of building activities that occurred even until recent times. Structure 17, for example, is known to have been built in the 1970s, and it is possible that various concrete renovations to buildings (e.g. Structures 25 and 28) or the forts defensive walls could date later than this. It is probable that concrete block construction dates after World War II. The construction history of buildings, like Structures 10 and 28, that show a combination of stone, concrete, and concrete block construction materials and techniques, are especially complex.

Preservation of the hospital's buildings presently ranges from individual stone foundations (e.g. Structures 19, 20 and 21), to the ruins of collapsed buildings (e.g. Structures 16, 27, 34 and 36), to standing buildings (e.g., Structures 8,9, 10,12, 13, 14, 15 and 18). Some ruins, like Structure 11, have almost none of their wood components preserved, while others, like Structure 36, that have collapsed more recently, have nearly all their structural elements preserved. All the standing buildings exhibit some damage from severe weather, salvage, removal of construction materials or contents, or subsequent use, especially for animal pens. Unless stabilized, repaired, and protected the standing buildings will continue to deteriorate. While the overall condition of the hospital and its structures at its closing in 1996 is not known, it appears that damage, as exacerbated by several strong hurricanes, has been considerable in just four years.

The V. E. John postcard shows that the hospital grounds once were landscaped with trees, shrub, and flowers, marked by large stones used for distinctive decorative patterns and borders. Except for stone alignments and the fountain (Structure 23) noted during the mapping of the fort's interior, there is very little visible evidence of the these features. The hospital's landscaping is no less important than the buildings to the

historical and social meaning of the site. The postcard, while showing only a small portion of the fort, provides important clues to the overall pattern and construction of the paths and planting beds. Obviously, locating additional historical photographs of the fort would contribute immensely to understanding the design and construction of the landscaping and would be extremely important to any future plans for further use of the fortress. Careful mapping and archaeological investigations also provide a means for further defining the hospital's landscaping and assessing its social and symbolic significance.

Presently, the cemetery area is unmarked, its historical boundary is not precisely defined, and none of the graves has a marker. The position of a small number of more recent interments is visible because the grave fill has settled leaving a low depression. Since it is not known how deep individuals were buried, modern gardening, the construction of livestock fences and pens, and other activities may disturb or remove individual graves and adversely affect the overall integrity of the cemetery area.

Charles Fort is unquestionably one of St. Kitts most significant historical sites from the colonial era. With an initial construction date of 1670, it is also surely among the earliest and best preserved colonial period forts anywhere in the Caribbean. The west side of the fort, however, has been severely damaged by erosion and the threat of further destruction remains. Besides the bastions, there are interior structures clearly representative of the military occupation, and additional archaeological studies could further define these and other associated features. The reuse of the fort as a leper asylum is no less significant as a material manifestation of the late nineteenth and twentieth century colonial and social history of the island. Fortunately, in establishing this second and very different use, the essential integrity of the fortress as a military site was not lost. The integrity of the hospital remains largely intact. Buildings, ruins, foundations and other features such as fences and drains provide a nearly complete

representation of the hospital's organizational pattern. Rapid deterioration from weather and modern use are sure to compromise the site's integrity unless efforts are made to mitigate the damage and preserve the fort.

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