An Archaeological Desk-based Assessment and Field Investigations for the Hospital Containers at Princess Estate, St. Eustatius, Caribbean Netherlands

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Cover Photo: The designated area for the hospital containers on St. Eustatius.
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1. Introduction

On April 21, 2020, the St. Eustatius Center for Archaeological Research was asked to conduct an archaeological desk-based assessment for the property that is called Princess Estate. Due to current pandemic of the COVID-19 virus a location is needed to place hospital containers on St. Eustatius. These hospital containers are to support the health care system on the island of St. Eustatius.

According to the Monuments Law BES article 1: monuments can be movable and immovable property, which are at least 50 years old and that are perceived of general interest because of their beauty, artistic value, their meaning for science, the history of the country or the value for their people, including archaeological heritage. The definition of archaeological heritage is in this case: buildings, objects or remains that, independently or jointly, and whether or not in the context of the location, indicate human activities that took place in the past, that are older than fifty years (wetten.overheid.nl).

The first step in the archaeological process is a desk-based assessment of the planned area of construction. In a desk-based assessment the archaeological expectancy of the planned area for development is determined by analyzing the geology and geomorphology, culture-historical data, and previous archaeological finds in the area. To substantiate this, SECAR was present during the excavation of the trench for the septic tank to see the actual archaeological features that are still preserved. The outcome of this research will provide insight into the nature, size, and extent of archaeological sites present in the area scheduled for development.

1.1 The reason and objective of this research

The reason for this research is the placement of hospital containers on St. Eustatius to support the health care system on the island. The entire area that is indicated in red (Fig. 1) will be made level with the road. For the placement of septic tanks, an area to the south of the hospital containers and to the west of the parking lots will be excavated (Fig. 2).
The objective of this research is to investigate the archaeological value of the piece of land by doing a desk-based assessment. The outcome of this research will provide us with an archaeological expectation of the property.

1.2 The research area
The planned area for development is a piece of land called Princess Estate. Princess Estate is located behind the old Jewish cemetery in Oranjestad, St. Eustatius (Fig. 2).
Figure 2: The piece of land that is chosen for the placement of hospital containers. Source: earth.google.com.
2. Landscape and Cultural-Historical Framework

2.1 Geology and geomorphology

Within the Lesser Antilles there is an active volcanic arc and an arc of limestone islands (from Barbuda to Marie-Galante) on an old volcanic base. The Lesser Antilles is subdivided into the northern Leeward Islands and the southern Windward Islands. St. Eustatius is part of the active arc and is located in the northern part of the Leeward Islands. The island, located at 17°28’–17°32’ N and 62°56’–63°0’ W, has a surface area of approximately 21 square kilometers (Fig. 8) (Roobol and Smith 2004, 36, 99; Westerman and Kiel 1961, 99).

St. Eustatius is comprised of three geomorphologic areas. The first area is the north-western part of the island, also known as the Northern Centers, which consists of an old volcanic landscape. The second one is the Quill volcano in the South. Finally, the third area is the plain between these two areas, also known as the “Cultuurvlakte” or agricultural plain (Westerman and Kiel 1961, 99).

Initially, the Quill and the Northern Centers were separated from each other. However, the deposits of volcanic eruptions have formed the flat part (Cultuurvlakte) between the Quill and the Northern Centers (Roobol and Smith 2004, 103; 249; 264).

The three geological units on Statia are the Northern Centers, the Quill and the White wall and Sugar Loaf formation in the south (Fig. 4).

The research area is in the geological area of the Quill that predominantly consists of agglomerates, lapilli, and tuffs (Fig. 4). The site lies in an urban area with houses and stores almost all around the property. The property is covered in grass, bushes, and the invasive species, coralita, also known as Antigonon leptopus.

![Figure 3: Schematic geological map of St. Eustatius (De Palm 1985, 182).](image)
2.2 Historical context

From archaeological excavations it is known that indigenous people lived on the island during the 7th up until the 9th century AD. These people are known as Saladoid people. Earlier evidence of human presence is found sporadically around the island.

Christopher Columbus sailed by St. Kitts and St. Eustatius on November 13th in the year 1493. Columbus named the island S. (Maria) de la niebe; however, he did not land there. The Spanish were not interested in St. Eustatius and the other smaller Caribbean islands. The self-proclaimed Spanish possessions in the Caribbean were extended over a too large area to be fully controlled. Therefore, the Spanish focused on holding their ports on the larger islands, the Greater Antilles.

When the Dutch revolted against Philip II, King of Spain, and started the Eighty Years’ War (1568-1648), they began to take a leap into the unknown and crossed the Atlantic Ocean. One of the main products for which the Dutch crossed the Atlantic Ocean was salt (Goslinga 1979, 20; Klooster 1998, 26; Postma and Enthoven 2003, 30-1). The smaller Caribbean islands were, because they were not defended by the Spanish, interesting for the Netherlands and other European countries to colonize and obtain a stronghold in the Caribbean (Dalhuisen et al. 1997, 76). Additionally, the Caribbean was an area the Spanish silver fleets would sail past, and the smaller Caribbean islands were perfect to spy on these fleets and perform an attack (Goslinga 1971, 54).

Since the year 1624, Dutch ships had already dropped anchor at St. Eustatius (Knappert 1932, 2). In 1629 the French had constructed a fort on the island but left soon after occupation due to a lack of good drinking water (Dalhuisen et al. 1997, 76; Attema 1976, 17; Hartog 1997, 24).

On April 25th, 1636, Pieter van Corselles and his 40 colonists took possession of St. Eustatius. They rebuilt the French fort and called it Fort Oranje. One of the reasons for the colonization of St. Eustatius might be the high demand for tobacco. Jan Snouck promoted the island by telling that “good tobacco could be planted and vast profits could be reaped” (Attema 1976, 16; Goslinga 1971, 262; Klooster 1998, 32).

In the next twenty years of the colonial life of St. Eustatius the colonists started planting sugar instead of tobacco. This cultivation of sugarcane required enslaved Africans to work the land (Attema 1976, 17; Goslinga 1971, 263). Therefore, in the following years there was an increase in the number of inhabitants on St. Eustatius. By the year of 1665 there were “330 whites and 840 negroes and indians” residing on the island (Hartog 1964, 223). The trade in commodities and enslaved people drew international merchants to the island (Attema 1976, 16). This prosperous trade caused other countries to be envious and this marked the beginning of the turbulent history of St. Eustatius. In the years between the 1665 up until 1713, the island changed flags fourteen times between the Dutch, the French, and the English (Dalhuisen et al. 1997, 76).

By the year 1715, eleven sugar plantations were back in business (Goslinga 1985, 131). Still, the island would never develop into a “full-fledged plantation” economy because of the lack of fresh water on the island (Enthoven 2012, 246). Simply not enough rainwater could be conserved with the use of cisterns to irrigate sugarcane fields (Miller 2008, 30). Instead, Statia became an international trading hub for the exchange of commodities and slaves. From the late seventeenth century until the year 1729, slaves were the main commodity of trade. However, from However, from 1730, sugar took over this position (Enthoven 2012, 293-4). The kleine vaart, the (illicit) inter-island trade between the many isles, was the main carrier for this commodity (Goslinga 1985, 189). St. Eustatius was in fact a “clearing station” for all
the other islands that had to follow their countries monopoly system, which meant that a colony could only trade with its mother country (Hartog 1976, 40). The size of this illegal trade can be seen in the import and export numbers of sugar in St. Eustatius. In the whole of 1779, the island produced 13,610 pounds of sugar, while it exported almost 25 million pounds of sugar (Goslinga 1985, 227). In that same year, 3551 ships dropped anchor at St. Eustatius to trade and there were 3056 people living on the island. It was during this time that St. Eustatius received the name “Diamond Rock” or “Golden Rock” (Goslinga 1985, 141; Hartog 1976, 41, 46).

When in 1776 the Andrew Doria was saluted by firing back the same amount of salutes it became the first nation that ‘recognized’ an American warship. The salute together with the ongoing trade with the American Rebels caused the English to declare war on the Dutch (Fourth Anglo-Dutch War 1780–1784). Therefore, on the 3rd of February 1781, Rodney and his fleet sailed into the harbor of St. Eustatius and demanded the islands’ surrender (Hartog 1976, 86-7). Rodney plundered the island and even held the Dutch flag up for over a month to collect the booty from over more than 150 incoming ships (Goslinga 1985, 149).

St. Eustatius was returned to the Dutch in 1784 and the island once again knew a prosperous time. The recovery of the island, although short lived, can be seen in two things. First, the number of ships that dropped anchor in Orange Bay increased. During the year 1784, a total number of 2,100 ships had come to St. Eustatius, while in 1792, this was 3,500. Second, there was an increase in population size. In 1781, there were a total of 2,929 people living on the island. In the year 1789, there were a total of 8,102 people, of which 5,120 were enslaved Africans (Jordaan 2012, 2-3). In 1790 there were even 8,124 people residing on the island (Hartog 1976, 100).

The island’s trade declined after 1793, because the United Provinces were now at war with France (French Revolutionary Wars 1792-1802). After the French, the island swapped another four times between the Dutch and the English until it permanently became Dutch in 1816.

The historical records show that the location for the hospital containers is located in the on the outskirts of historical Oranjestad. The first known map of St. Eustatius, made by Alexander Lavaux, dates back to the year 1741 (Renkema 2016, 484). This map is a good indicator for plantations with their names and ownership. This map does not depict anything in the area that is up for development. The closest plantation is number 24, owned by Captain Joan Z. Doncker (Fig. 4). The letter C indicates Fort Orange.
A copy of this map with updated information on plantation owners is made by Reinier Ottens in 1775. The red square shows the approximate location for the hospital containers (Fig. 5).

Following the English conquest of Statia in 1781, a map was made by P.F. Martin which shows all the plantations existing on the island at the time in great detail. Furthermore, the town area is better defined than the previous maps. The location for the hospital containers and septic tank is now located on property owned by Simon Donkers. This map depicts part of the slave village and a few buildings from the sugar plantation at Princess Estate in the indicated red box (Fig. 6).
The map of the island made by William Faden in 1795 shows all the batteries and forts of the island. Also, this is the only map of St. Eustatius that depicts the roadstead for the ships. The plantations and historical town are very poorly depicted. The red square shows that there are several buildings and a stone wall depicted (Fig. 7). However, this shows that the town is not depicted in a realistic manner.

After 1812, a map was made by W. Blanken on which all existing plantations are depicted. The town area of Upper and Lower Town is indicated by red rectangles (Fig. 8). The letter a indicates Fort Orange on this map.
In 1829, Samuel Fahlberg, the Governor of the island at the time, made a map on which all plantations and the town is depicted. This map does not depict anything in the area that is up for development (Fig. 9).
On the map made by A.H. Bisschop-Grevelink between 1839 and 1846, the area for the hospital containers is on the outskirts of Oranjestad (Fig. 1). The location is at the letter B, which stands for Prinses. Number 4 stands for begraafplaats or cemetery.

![Figure 10: Map made by A.H. Bisschop-Grevelink between 1839 and 1846. The approximate location for the hospital containers is indicated by the red box. Source: Algemeen Rijksarchief, 4.MIKO 645.](image)

The J.V.D. Werbata map, published in 1915, does not depict any buildings in the proposed area the hospital containers (Fig. 11). There are, however, two crosses in the northern part of the property.

![Figure 11: Map made by J.V.D. Werbata, published in 1915. The approximate location for the hospital containers is indicated by the red box. Source: Algemeen Rijksarchief 4.MIKO 2107.](image)

The KLM Aerocarto map of 1963 shows the two cemeteries and that there are ruins in the northern part of the property (Fig. 12).
2.3 Archaeological context

During the summer of 1986, the tract of land that is called Princess Estate was the subject of the College and Mary Archaeological Field School. One prominent building called SE-220 was excavated (Fig. 13). Originally this building was interpreted as a Jewish Mikvah, but after excavation it was interpreted as a boiling house for the production of sugar and the distillation of rum. The excavation revealed eight features in the building such as the furnace or boiler for the heating of sugar juice in kettles, cooling tanks to promote cooling and granulation of the struck sugar juice in the boiler, a tank for holding or containing sugar juice, holding tanks for molasses and a small fireplace for heating a distilling apparatus. The last feature are the remnants of stairs, needed for distillation servicing. The presence of a large cistern and ruins of other structures, possibly domestic buildings, to the immediate north of the sugar boiling house tends to reinforce this belief (Barka 1987, 41-46).
Based upon the type of ceramics found within the fill of certain features, the SE220 building seemingly dates to the 19th century. Very few, if any, eighteenth century artifacts have been uncovered (Barka 1987, 31).

### 2.4 Archaeological expectation

When looking at the previously discussed historical sources and the previous archaeological work that has been conducted it can be concluded that the area for the hospital containers and the septic tanks has a high archaeological expectancy. This high archaeological expectancy is also shown on the Archaeological Predictive Map that is included in appendix 1. There is the possibility that there was a slave village on the location designated for the hospital containers and the septic tank (Fig. 6). Furthermore, there is a chance that the Jewish Cemetery might have extended towards the property called Princess Estate. This means that there is a possibility of encountering human remains.

The location is in an area that can easily be accessed and a large amount of modern waste was encountered when the site was visited, therefore, the expected integrity of the topsoil is deemed to be low. However, the integrity is expected to be higher for the deeper stratigraphic layers. This means that in the case of a slave village, the post holes of the houses are still visible in the ground in the form of a decolorization in the soil.
3. Field Investigations

3.1 Introduction
When the location for the septic tank at Princess Estate property was visited for the first time, photographs were taken of the location in relation to the known structure (SE-220) and the large boulder that is present there (Fig. 14 and Fig. 15). When the septic tank was being excavated, an archaeologist from SECAR was present to navigate the excavation, to identify archaeological features and to make sure that no archaeological remains were destroyed.

Figure 14: Part of the property of Princess Estate, structure SE-220 is visible in the back (Photo: SECAR Staff).
Figure 15: Part of the property of Princess Estate, to the left you see the large boulder that is also visible on the previous photo (Photo: SECAR Staff).

A trench that was 1.5-meter-wide and 5 meters long was excavated for the placement of the septic tank (Fig. 16).
Due to the emergency of the project, SECAR staff was allowed to only take pictures if any archaeological features were encountered. Photographs were taken using a Nikon D5300 camera with a scale bar of 1 meter in length and a north arrow.

3.2 Results
The results of the test trenches have yielded less archaeological remains than previously anticipated. The map made by P.F. Martin in 1781 shows the location of a slave village in that approximate location. However, after excavation of the trench, no archaeological features have been found. Photographs of the trench are provided below (Fig. 17 and Fig. 18).
Figure 17 and 18: Left shows the trench looking south southwest and right shows the trench looking north northeast (Photo: SECAR Staff).

3.3 Recommendation

If no further major ground disturbing activities will take place, no additional archaeological research is required. However, we recommend that if the area is flattened any further that an archaeologist is to be present at that time.
Internet Pages

Bibliography


Appendix 1: Archaeological Expectation Map St. Eustatius