An Archaeological Desk-Based Assessment and Field Investigations for the F.D. Roosevelt Airport on St. Eustatius, Caribbean Netherlands

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Cover Figure: SECAR personnel identifying features in trench 2 (Photo: SECAR staff).
**Warning:** This report contains photographs of human remains, if you are uncomfortable with this do not read section 3.2.2.1 *Human Remains.*
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1. Introduction
The St. Eustatius Center for Archaeological Research was contracted by the Openbaar Lichaam St. Eustatius to conduct an archaeological desk-based assessment and field investigation of the area to the west of the helicopter hanger at the Franklin D. Roosevelt Airport, St. Eustatius. Sand has already been removed from the area and the plan is to completely remove the hill.

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 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 development. In a desk-based assessment the archaeological expectancy of the area is determined by analyzing the geology and geomorphology, culture-historical data, and previous archaeological finds in the area. Field investigations, performed by several test trenches, are conducted to determine the nature, size and locations of the archaeological heritage in the designated area.

1.1 The reason and objective of this research
The reason for this research is that development is going to take place in the area to the west of the helicopter hangar and to the south of the current runway (light green and red on Fig. 1). On the plot of land that is discussed in this research, the removal of sand has already started, however, was halted due to the high archaeological expectancy of the area. The excavated sand will be removed and used for the construction of the roads. Ultimately, the entire hill is to be removed and leveled out with the remaining area.
The objective of this assessment is to predict the archaeological value of the piece of land by carrying out a desk-based assessment and to substantiate this by performing test trenches that will show 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.

1.2 The research area

The planned area for development is almost in the middle of St. Eustatius, located on what is called the Cultuurvlakte. The planned area for construction that is discussed in this report is one large rectangular area of approximately 280 meters by 84 meters (light green and red area to the west of hanger on Fig. 2).
Figure 2: Proposed land use plan for the airport. The area that is discussed in this report is indicated by the light green and red to the south west of the terminal area (orange) (After Maldwyn Timber (ENI) and 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 (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. 3). The research area is located in the geological unit of the Quil, which consists predominantly of agglomerates, lapilli and tuffs. The most common vegetation is grass and coralita (Antigonon leptopus).

Figure 3: Schematic geological map of St. Eustatius (De Palm 1985, 182).
2.2 Cultural context

Previous archaeological surveys have taken place in the area in 1923 and 1983 (Josseling de Jong 1947; Haviser 1983; 1985). Due to the survey of 1983, large scale excavations have taken place starting the year after (Versteeg and Schinkel 1992). An archaeological salvage operation took place in 2012 when part of a prehistoric house plan was uncovered (Vermeer et al. 2015). In 2015, SECAR monitored excavation and construction efforts at the area of the Franklin D. Roosevelt Airport, St. Eustatius (Morsink et al. 2016). This information provides the cultural context in which this study can be placed.

2.2.1 Golden Rock

The first person to discover and mention the Amerindian site on St. Eustatius was J.P.B. de Josselin de Jong in 1923 (Josselin de Jong 1947). Josselin de Jong visited the island in that year as a part of the cooperation between the National Museum of Ethnology in Leiden and the National Museum in Copenhagen. After several excavations on other islands in the Caribbean, Josselin de Jong continued independently on several islands of the Netherlands Antilles (Versteeg and Schinkel 1992, 6).

During the summers of 1981 and 1982, Dr. Jay Haviser surveyed the island and revisited the sites that were mentioned by Josselin de Jong. Haviser’s notes that “development of this area with the construction of the Roosevelt Airstrip and the Government Botanical Experimentation Center have destroyed almost all there was of the prehistoric midden [E] when [Josselin] de Jong reported the site in 1923” (Haviser 1983, 14-15). Haviser recognized the scientific potential of the site and advocated for further research.

In the year 1984, excavation of the Golden Rock site started as a joint venture between Leiden University, the Institute of Archaeology and Anthropology of the Netherlands Antilles and the St. Eustatius Historical Foundation. Between the years 1984 and 1989, two spatially separated components of the site were recognized: GR-1 and GR-1 (Fig. 4). The two components seem to be part of one settlement; however, little research has been conducted to prove this hypothesis.
Figure 4: Locations of GR-1 and GR-2 with the middens described by J.P.B. Josseling the Jong (Versteeg and Schinkel 1992, 9).

Figure 5: Locations of Golden Rock (GR-1, GR-2 and a possible GR-3) (after earth.google.com).
After the first years of excavation, researchers switched from the methodology in which small-scale areas (1x1 m or 2x2 m) were slowly excavated in arbitrarily separated layers of 10 cm using shovels and trowels to a large-scale excavation in which mechanical equipment is used to strip the topsoil of a large area to expose the undisturbed soil below. The first methodology works well with excavating midden in which archaeological material needs to be recovered in a detailed manner. However, the method is slow and limits the total surface area that can be excavated at the same time, which causes overall features to be less visible. Versteeg and Schinkel (1992), therefore decided to change their fieldwork methodology and initiated a large-scale excavation of the habitation area just outside the midden area. In the undisturbed soil below, discolorations become visible that cannot be seen in the topsoil. These discolorations can be the consequence of floral and faunal activity, such as the remains of tree roots or animals digging holes. The discolorations can also be a product of past human activity, such as disturbing the soil to put in poles for house, the construction of hearths and the burial of people. This excavation of a larger area allowed the exposure and documentation of a plethora of features, exposing multiple (house) structures that have still not been found elsewhere in the Caribbean archipelago.

The analysis of pottery placed the Golden Rock site in the general scheme of pottery traditions of the Caribbean prehistoric period, created by Rouse, with the Cedrosan Saladoid period (Rouse 1992). Cedrosan Saladoid ceramics have been placed between approximately 500 B.C. and A.D. 600. The radiocarbon dates of the Golden Rock site, however, show that the main occupation was between A.D. 500 and A.D. 800. The Golden Rock site is according to Rouse’s general scheme a deviation, but, more interestingly, researchers use the site as a type-site for the Cedrosan Saladoid due to the material culture the site has produced. The material culture of the site, together with the success of a large-scale excavation, make the Golden Rock site a unique site and made it well known after Versteeg and Schinkel were finished.

An archaeological rescue operation took place on August 1, 2012 when a small area immediately southeast of GR-I at the Max T. Pandt Boulevard lay under direct threat of being destroyed due to the construction of a new building (Vermeer et al. 2015). Approximately 1 m of soil on average had already been removed for the placement of the building when SECAR archaeologists arrived on site. The archaeologists were granted one day after they had expressed their concerns to the authorities. After planing of the trench’s surface, a small floor plan became visible, which is from now called GR-III. Due to the fact that GR-III is quite far away of GR-I it leaves us with three possible options: 1) GR-1 and GR-III belong to the same sub-site; 2) GR-III is part of a different and as yet unknown sub-site located in close proximity; or 3) GR-III is a free-standing structure. Louwe Kooijmans (1994, 27-30) concluded that the Golden Rock site consists of four or five so-called sub-sites situated around the present airfield (Fig. 6). Versteeg and Schinkel (1992, 210-11) supports this.
The first option would imply that a large part of the sub-site has not been excavated. The Max T. Pandt Boulevard runs right across this area. The second and third options would imply that the site lay-out model based on the interpretations of Louwe Kooijmans and Versteeg and Schinkel is still viable.

During the months of April to July of 2015, SECAR monitored the excavation and construction efforts at the airport at the request of Rijkswaterstaat, the Ministry of Infrastructure and the Environment, the Netherlands. In these months a large-scale renovation and upgrading of the facilities took place at the airport. New lights along the landing strip were constructed along with three concrete blocks, the apron was extended, an oil separator was installed, and fences were placed all around the airport. Test trenches were excavated all along the airport strip due to these renovations (Fig. 7).
The test trenches at the project area were approximately 30 cm wide and 80 cm deep. In total, a length of 3,212 m was excavated. Archaeological material was collected in 10 m intervals to investigate the spatial distribution of these artifacts across the project area.

Most artifacts were found in the southeastern part of the project (Trench 1, 2, 3 and 4). These trenches were closest to GR-1. Almost no artifacts were found in the test trenches between GR-1 and GR-2, which could mean that GR-1 and GR-2 were physically separated.

2.2.1.1 Pottery
The excavations in the 1980s at the Golden Rock site produced a total of 54,401 pottery sherds. The characteristics of this pottery (shape, decorations and composition) are strikingly uniform. The most occurring shapes were open bowls and vessels with an unrestricted orifice. Restricted orifices vessels also occur but occur in lower numbers. Furthermore, griddles, flat circular dished that were used for cooking, were found in large numbers. Diameters vary between 12 and 66 cm, with an average of 37.8 cm. The last group, cylinders, are defined by the lack of a bottom, although a few specimens do have one. Cylinders were possibly used as a pot-stand (Versteeg and Schinkel 1992, 38-58).

Of the 50,283 pottery sherds of GR-1, 20.51% is decorated. The decoration of pottery varies between the stratigraphical layers at GR-1. The top layers contain 20% of decorated sherds versus 25% in the lower layers. Three decoration patterns are distinguished by Steenvoorden (1987, 57) for the collection of GR-1: 1) painting by the application of a special-compound, fine-grained (slip); 2) incising, wide line and narrow line; 3) modeling of adornos or other applied features to rims and walls. Pottery was painted in a red or white color, using a red or white clay. The narrow-lined incisions are part of the well-known Saladoid zone-incised-crosshatched (ZIC) motif. Open bowls and vessels are the most decorated and most complete vessel shapes of the Golden Rock site.

The way pottery is decorated and shaped provides information about its potential usage. Pottery that has an open shape, such as bowls, is used for presenting food or other (un)related items. Pottery shapes such as bowls are not suitable for the preparation of food due to its open form. Pottery with a restricted orifice reduce evaporation and reach a boiling point in a shorter amount of time. Decoration on pottery indicates that it was used in a social setting. The most decorative pottery was possibly used with special occasions. An open bowl with decoration can, therefore, be a suggestion that people had communal gatherings where food or other (un)related items were presented and shared among a group. Examples of such communal gatherings could be funerals, feasts and marriages.

Overall, pottery shows a consistency in decoration throughout the multiple habitation phases of the site. Even the pottery from caches, which would have been purposefully deposited and buried with a possible special event, do not significantly differ from decorations and forms of the bulk of the assemblage (Vermeer and Schinkel 1992, 71-71). Also, the 351 artifacts that were found during the monitoring project of 2015 show an overall consistency with the material from the 1980s (Morsink et al. 2016, 28).

2.2.1.2 Faunal remains
A total number of 45,103 bone fragments have been collected during the excavations in the 80s by Leiden University. Approximately 42% of these bones have been identified to the level of class or taxa below class. At least 525 individual animal remains have been identified and the majority is believed to be refuse of food consumption (Versteeg and Schinkel 1992, 74).
Most of this refuse of food consumption is coming from the sea. Fishes such as the grouper (Serranidae family), scad (Carangidae family) and tuna (Scombridae family) are believed to be the major contributors to the prehistoric diet. Other animals included birds such as Boobies (Sula sp.) and Tropic Birds (Phaethon sp.); mammals such as the extinct rice rat (Oryzomy sp.), agouti (Dasyprocta aguti), an unidentified bat (Chiroptera), the now extinct West Indian monk seal (Monachus tropicalis), a domestic dog (Canis familiaris), and a dolphin or whale (Cetacean); and reptiles such as an Iguana (Iguana delicatissima) and the Hawksbill turtle (Eretmochelys imbricata).

A complete skeleton of the latter, a Hawksbill turtle, was found in the lowest section of the midden of GR-1. The turtle had been buried upside down in its original anatomical position, which suggests that it was buried on purpose and not used as a source of food. Turtles, such as the Hawksbill turtle, Green Turtle and Leatherbacks are native to St. Eustatius and the island still is a popular nesting site for these animals. The intentional burial of the hawksbill turtle, which costs energy and time, could mean that there was a special relationship with this hawksbill turtle and the people of the Golden Rock site. The importance of turtles for indigenous peoples in the Caribbean can also be found in historical accounts. Ramón Pané, a young Spanish friar who had to live among the “Indians” who were “discovered” by Columbus, wrote in his journal that a female turtle emerged from the back of Bayamanaco. The female turtle was used mutually by the four brothers and the female brought forth daughters and sons (Pané 1999, 16-17). This, together with the fact that turtles lay large amounts of eggs, suggests that fertility might have been associated with this animal. The burial of the turtle might be an indication that the people of Golden Rock also considered turtles to be part of their world view.

More than 50 species of shells were identified in total. However, most of the assemblage consists of the West Indian Top Snail (Cittarium pica). Other species such as Nerita tessalata, Nerita versicolor, Purpura patula, Lobatus gigas, Tectarius muricatus, and chitons were also relatively abundant. During the monitoring project of 2015 only Cittarium pica and Lobatus gigas were found. Shells were mainly used as tools such as scapers, celts, axes, adzes and chisels. However, shells were also used to make ornaments such as beads, pendants and tinklers. More rare objects are shell atlatls and three pointers (Vermeer and Schinkel 1992, 84-106).

A total of 18 coral species have been found at GR-1. The species that occur the most on the site are Acropora palmata, Acropora cervicornis, Porites, Porites astreoides, Porites branneri, Diploria clivosa, Diploria strigosa, Diploria labyrinthiformis and Colpophyllia natans. Coral was used as a raw material for tools, such as rasping, grinding, and drilling tools. The high amount of certain types of coral could suggest that there was a certain preference for a specific type of coral for a certain tool.

2.2.1.3 Features

Many features were exposed when the fieldwork methodology was changed to a large-scale excavation of the habitation area. Of these features, 772 were interpreted as postholes, 113 as pits, 4 as caches, 3 as hearths, and 11 as human burials. Even though it has been almost four decades that this site was excavated, it remains one of the most comprehensively excavated precolonial villages of the Lesser Antilles. The new field methodologies that were used by Versteeg and Schinkel (1992) led to radical new data that contributed greatly to the knowledge of house structures and village layouts of the Caribbean in this time period. Before this research, very little was known on this topic.
The postholes were found in a specific spatial relationship in the 1980s. By looking at the size, depth and color, a reconstruction has been made of 14 structures. Eight structures are interpreted as houses and six as a fence or ancillary structures. These house patterns were dated to five subsequent occupation phases (seventh through ninth centuries A.D.) (Versteeg and Schinkel 1992, 202-208). In the first two phases there were 3 house structures (S3-S2-S1) with circular floor plans of 7 to 9.5 m in diameter and that were spaced 20 m apart. In phase 2, two structures (S1-S2) were extended with side compartments (Versteeg and Schinkel 1992, 205-207). In the third and fourth occupation phase the earlier structures had been replaced by larger circular structures of 14 to 19 m in diameter (S5-S4). Ethnographically these structures are known as malocas or communal houses. In the fifth occupations phase a different maloca was built that had a turtle shape-layout. Eight other structures remain undated, such as a small circular structure of 4.5 m in diameter (S8). The latter is described by Versteeg and Schinkel as a special activity or work hut that is described to the first two building phases. This special activity or work hut is believed to be a predecessor of a maloca (Versteeg and Schinkel 1992, 205). Another possible predecessor of a maloca was found in 2012 by Vermeer et al. (2015) and had a diameter of only 2.5 m.

The excavated precolonial house structures at Golden Rock remain the largest precolonial houses in the Lesser Antilles. Besides pottery being used as a type collection for Saladoid pottery, the site itself is also used by many archaeologists as a type-site for Saladoid living practices. Diachronic social developments often designate early Saladoid living practices as cohabitation by extended families based on the large houses found at Golden Rock. In later periods, family size was reduced to nuclear families that inhabited individual (smaller) dwellings. A temporal development is, however, difficult to assess as relatively few early sites with house structures have been excavated and few studies have been published.

In addition to the large diameter of the house structures, Versteeg and Schinkel (1992) point out that some house forms resemble animals that live in the area. Besides, the house with a turtle-shape layout, there are also two structures that resemble a stingray. The ‘turtle house’ contains five ‘extra’ postholes that were still associated with the structure (Fig. 8). Looking from above the layout suggests that it is the carapace of a turtle with the head and legs attached. This interpretation is strengthened by the burial of a Hawksbill turtle at the site. One of the possible symbolic connotations to this house could be fertility, based on the historical account of Ramón Pané (1999).
Figure 8: House plan layout of the 'turtle house' (Versteeg and Schinkel 1992, 163).

The houses of Golden Rock with a diameter of 14, 16 and 19 m, are unique in the Caribbean. House plans that have been found in Guadeloupe are the only one that are of a comparative size (Morsink 2006). In the remainder of the Caribbean region all houses have been under 12 m in diameter, but mostly range between 7 and 10 m. (Curet 1992; Hoogland and Hofman 1993; Jansen and Dorst 2007; Morsink 2006; Pendergast et al. 2002; Samson 2010; Van den Bel and Romon 2010). House plans this large suggest that people at the Golden Rock Site were living in a larger social group than at the other sites.

This change in house patterns is of great significance, as it may point to social organization and kinship patterns unique to the Caribbean region. In the literature, early waves of long-distance colonization, like in the case of the Caribbean as well as the Pacific, often require a matrilocal social organization (Hage and Harary 1996; Keegan 2007, 2010; Morsink 2009; Morsink and Keegan 2010; Schneider and Gough 1961). In patrilocal groups, men are bound to the village for a large part of the year due to the requirement of labor such as agriculture. In long-distance colonization efforts, the men were most likely to do the initial exploring and voyaging. In order to do so, men were required to be away for a long period of time.

With the men away for a long period of time, the kin-related females grow closer to each other. Females become more dependent on each other than on their husbands, fathers or brothers. This process gradually transforms the social organization into a matrilocal (and matrilineal) situation. In matrilocal groups, women arrange most of the everyday activities in and around the village while men are relatively flexible in their mobility. It is shown from cross-cultural patterns that the house patterns of matrilocal groups are much larger than patrilocal groups (Divale 1974; 1977; Ember 1973; Ember and Ember 1971).
This could be interpreted that kin-related females are more likely to cooperate in larger groups than their male counterpart. Men are more focused on their own social position within the complex network of kinship relations. This means that the houses at Golden Rock would then first be occupied by large groups of women and later by smaller social units of males with their families.

Within this change, the Caribbean might have also been one of the few locations in the world where people organized through avunculocal residency patterns. Avunculocality is defined by young males living together with their maternal uncle. By staying with their maternal uncle, they can maintain their matrilineal organization and define themselves through female bloodlines while bringing together males that are socially connected through kinship ties. The father-son relationship in matrilineal societies is relatively weak compared to a young male’s relation to his maternal uncle, even in matrilocally societies. Although these patterns are sometimes difficult to assess, the Caribbean prehistoric record does show material evidence of these sorts of relations and changes in kinship patterns (Keegan and MacLachlan 1989; Morsink 2009, 2011; Morsink and Keegan 2010). As such, the data Versteeg and Schinkel (1992) unearthed regarding these house structures was of great significance in terms of understanding diachronic housing practices and social relations on Statia, but also throughout the Caribbean region.”

The second largest group of features are pits. A total of 113 pits were uncovered at the Golden Rock site (Versteeg and Schinkel 1992, 168-170). These pits might have been used for a variety of purposes, unfortunately interpretation of these pits is very difficult due to a lack of artifacts in these pits.

Caches are in a sense like a pit but have been separated due to the specific content they contain. Therefore, cashes are interpreted as specialized depositional structures with a ritual connotation. In addition to the burial of Hawksbill turtle, three other cashes have been found. One cache contained the sherds of four complete pottery vessels that were placed in a round pit on top of a tuff floor. Another cache contained a large slab of coral of 35 cm in diameter that was placed on its side in an east-west orientation. The last cache is the intentional burial of the skull and some vertebrae of a Hawksbill turtle. The latter was found underneath the midden area.

Three hearths were found underneath the midden. Hearths are made of fine ash and are therefore very susceptible to post-depositional processes. This means that they are damaged easily. With the large-scale excavation of the habitation area, the original surface was partially removed. This might be an explanation for the low number of hearths.

A total of eleven burials have been found during the excavations the 80s. Most of these burials were adults, but one 18-year old female, one 14-year old male or female and one child have been also been buried at Golden Rock. Evidence was found of secondary burial practices. Human bones were found in a reconfigured position that could only have been possible after the individual was fully decomposed. Certain burials contained funerary gifts, such as pottery vessels, conch tools and beads. The burial of the child contained 81 quartz and three shell beads, which suggests that the young individual had a certain status in the community. This status probably could not have been acquired and must have been due to his/her lineage.

Many of the burials have been buried outside of the house structures. Two burials, however, were found inside house structures. While it is possible that this might not have occurred in the same time period, the practice of burying individuals within house structures is a common practice in the precolonial Caribbean. By placing an individual inside a house structure, it connects the individual with the structure spatially. It establishes a link between the social meaning of group identity and the physical structure and
body of the deceased. This practice ensures that the individual remains a participant of the house (Morsink 2006, Samson 2010).

2.2.2 Golden Rock Plantation
When the island was colonized by Pieter Corselles and his men in 1636, they found the island uninhabited. During the first few decades, the colonists grew tobacco on the island, due to its high demand in Europe. However, over the years the colonists started planting sugar instead of tobacco. This cultivation of sugarcane required enslaved Africans to work the land (Fig. 9) (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).

Figure 9: Drawing by Jan Veltkamp depicting slaves working on a Statian sugar plantation around 1750. Source: National Maritime Museum, Amsterdam. The rum distillery is indicated with an ‘A’, the cattle mill with a ‘B’, the boiling house with a ‘C’ and the sugar cane with a ‘D’.

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 (Fig. 5). However, from 1730, sugar took over this position (Enthoven 2012,
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).

This is probably where the Golden Rock plantation has derived its name from. The Golden Rock plantation used to be one of the larger plantations on the island and there are still local stories about this plantation. One of the past owners of the plantation, Mr. Moore, was the cruelest slave owner during the mid-nineteenth century (Crane 1996, 115, 118, 271, 278). He frequently had enslaved people whipped for his pleasure when he was drunk. It is said that he used to have his enslaved people, including pregnant women, whipped for as long as it took him to smoke two cigars (Stelten 2019, 122).

No archaeological research has been conducted at the plantation up until this day. It is known from historical records that a plantation has existed for on that location for quite some time. 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. The Golden Rock plantation of today is here indicated by the number 17 (Fig. 10). On the map of 1741 the plantation is owned by the widow of Abraham Lucas Raepsaet. The plantation next to number 17, number 18, is also listed as being owned by the widow Raepsaet.

![Figure 10: First known map of St. Eustatius that dates back to the year 1741. The plantation is indicated by the red box. Source: Algemeen Rijksarchief 4.MIKO 339.](image)

A copy of this map with updated information on plantation owners is made by Reinier Ottens in 1775. Now plantation number 17 is called *Raapzaats-dal* and is owned by Abraham Heyliger (Fig.11). Plantation number 18 is now listed as being owned by Martin Dubrois Godet Senior.
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 detail. Furthermore, the town area is much better defined than the previous maps. The plantation is still being owned by Abraham Heyliger (Fig. 12).

On the map of the island made by William Faden in 1795 there is only one plantation depicted (Fig. 13). This map, however, does not provide an accurate description of the interior of the island.
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. The plantation is indicated by the red square (number 22) (Fig. 14). The corresponding legend states that it is owned by Marcoo W.

In 1829, Samuel Fahlberg, the Governor of the island at the time, made a map on which all plantations and the town is depicted. The plantations are schematically depicted, and there is a plantation drawn on
the location of the Golden Rock plantation (Fig. 15). The plantation to the east, which was owned by Law Salomons on the map of 1781, is no longer visible.

![Figure 15: Map made by Samuel Fahlberg in 1829. The plantation is indicated by the red box. Source: Algemeen Rijksarchief 4.MIKO 1706.](image)

On the map made by A.H. Bisschop-Grevelink between 1839 and 1846, the plantation is indicated by the number D (Fig. 16). It is on this map that the name Golden Rock is used for the first time.

![Figure 16: Map made by A.H. Bisschop-Grevelink between 1839 and 1846. The plantation is indicated by the red box. Source: Algemeen Rijksarchief, 4.MIKO 645.](image)

The J.V.D. Werbata map, published in 1915, also shows the name Golden Rock (Fig. 17). This map shows all the plantation names that we still use up to present day. The land boundaries, forts and roads are well depicted on this map. Also, for the first time, elevations are shown on the map. On the location of the Golden Rock plantation are only a few ruins drawn.
The KLM aerocarto map is published by the cadastral survey department of the Netherlands Antilles in 1964 (Fig. 18). This map is the first map that is based on photographs. The photographs were taken by KLM Aerocarto N.V. Therefore, the land boundaries, forts and roads are depicted extremely accurate. This map also depicts wells and cisterns. In the area of the Golden Rock plantation are several ruins and fences indicated.
2.3 Archaeological expectation
It is known from the previous research that was conducted in the area that it is in the close vicinity of the precolonial site Golden Rock (Josselin de Jong 1947; Haviser 1983, 1985; Morsink et al. 2016; Vermeer et al. 2015 Versteeg and Schinkel 1992). The plot of land of which sand will be removed is deemed to have a high archaeological expectation since it is closely located to the Golden Rock 1 site and to the historical Golden Rock plantation. The archaeological excavations of the 1980s only uncovered part of the Golden Rock 1 site and it is very much possible that the site continues towards the west. This research is an excellent opportunity to test the site layout model of Kooijmans and Vermeer and Schinkel for the site of Golden Rock 1 (Fig. 6). Therefore, the area could contain the remains of a sub-site of Golden Rock 1. Additionally, there might be archaeological remains present that belong to the nearby historical Golden Rock plantation. Due to the high accuracy of the 1781 map and with the knowledge of several known locations on the island, such as the location of the Law Salomons plantation that was uncovered in 2019 (SECAR Report number 20190601), it is possible to overlay this map on the drone footage of 2018 (Fig. 19). This shows that part of the slave village of the Golden Rock plantation is located on the area that is up for development.

Figure 19: The P.F. Martin map overlayed on the drone footage of the island of 2018. The plantation is indicated by the red outlining (after earth.google.com).
For the precolonial period of the Golden Rock site, this means that many features are expected that have to do with Saladoid living practices. These features include postholes (for houses), pits, caches, etc. and are approximately 45 cm below current surface. Furthermore, there is a possibility that a shell midden is present underneath the current landscape. Besides shells, a shell midden contains pottery, faunal remains, coral, stone, and, furthermore, it provides a geological insight into the deposition of the midden. The excavations from the 1980s indicate that the conservation of the archaeological material is high.

Features that are to be expected from the colonial site of Golden Rock plantation have to do with the life at a slave village. Only one slave village has been excavated on St. Eustatius. The features of the slave village of the Schotsenhoek (Fig. 20) plantation consisted of five ditches, a hearth, two animal burials, several plough scars, and numerous post holes (Stelten 2013, 31). Expected archaeological material is pottery, glass, metal, faunal remains, stone and mortar. The conservation of the archaeological material from the colonial period is deemed to be high since the land has been solely used for agricultural purposes in the past, which causes minimal disturbances.

Figure 20: Reconstruction drawing of the slave settlement and adjacent Schotsenhoek plantation based on archaeological and historical evidence. Drawing made by Andy Gammon, June 2013.

Since the property is in a restricted area, and therefore not accessed by many people on a daily basis, the expected integrity of the land is relatively high when it comes to the precolonial and historical period.
Relatively, because with the construction of the airport in the 80s, cables have been placed throughout the area that have possibly disturbed part of the area.

In short, the archaeological expectation is high throughout the area. The integrity is high as well, except for the disturbance due to the placement of cables and colonial agriculture.
3. Field Investigations, Test Trenches

3.1 Introduction

When the property was inspected for the first time there was already a large amount of soil excavated (Fig. 21). The proposed area has been surveyed by the author and no structures have been observed on the surface or in the large, excavated trench. Colonial artifacts were, however, found in the area. To determine the nature of the site, several test trenches were dug across the site with a tracked excavator (Fig. 14). During the excavating, an archaeologist from SECAR was constantly present to make sure that the test trenches were dug properly, to identify archaeological features and to make sure that no archaeological remains were destroyed.

![Figure 21: The area that has already been excavated looking west (Photo: SECAR Staff).](image-url)
Figure 22: The area that has already been excavated looking east (Photo: SECAR Staff).

Figure 23: The area that has already been excavated looking east (Photo: SECAR Staff).
The research area has a total surface area of 23,520 m². A total of three test trenches were excavated across the property. Test trench 1 was 198 m in length, test trench 2 was 221 m in length and test trench 3 was 59 m in length. Excavation was carried out using a 1.6-meter-wide flat bucket. Two-meter-wide trenches are customary in the Netherlands; unfortunately, a 2-meter-wide bucket was unavailable. However, research has shown that wider trenches of, for example, 4 meters don’t proportionally increase the number of discovered features (Haneca et al. 2016, 51).

Continuous trenches are the chosen pattern, as research has indicated that there is only a minimal difference in discovered features compared to other trench patterns. Continuous trenches, however, are the quickest and most cost-effective pattern and are therefore preferred. The three test trenches were laid parallel to each other with a distance of 11 m in between the trenches.

The test trenches comprise a total of 764.8 m² or 3.25 % of the total research area. This is lower than the range that is customary in Dutch archaeology, which is 7% - 10% of the total research area (in France it is 10%, in England 5%). The range is lower due to the fact that almost half of the area has already been excavated and, therefore, making the area much smaller. However, research has indicated that within test trench coverage in the range of 2.5% - 20%, the proportional difference in detected features does not vary. The 7% - 10% range generally provides sufficient information to make an estimate of the research area’s archaeological potential, quality, and further research required (Haneca et al. 2016, 46, 54). According to De Clercq et al. (2011), using sufficient coverage is essential to gain a good understanding of the extent and nature of human occupation in rural areas.

Figure 24: The excavator creating the test trenches (Photo: SECAR Staff).
The trenches and features have been mapped, photographed, sectioned and drawn. The mapping was done using a Sokkia CX-105. Artifacts belonging to the features were catalogued and photographed. Photographs were taken using a NIKON D5300 camera. Plough zone artifacts were collected in 10-meter sections. Roughly one-meter wide profile sections are recorded every 50 meters and drawn at a scale of 1:10. Sectioned features are drawn at a scale of 1:20. Artifacts are conserved and stored at the SECAR storage facility.

3.2 Results
The proximity of the prehistoric site (GR-1) that was excavated in the 1980s predicted a high number of prehistoric features and material. On the very eastern side of the three trenches, these prehistoric features have been found. In total, 11 features have been identified as Amerindian. The remains of the archaeological expedition in the 1980s have not been found in the soil. This might indicate that there are more intact prehistoric features going east of the three trenches.

When looking at the historic cartographic material it shows that on all of the consulted maps there is a plantation depicted in the area of what is now called Golden Rock. The name of the plantation that is listed on the 1775 map is *Raapzaats-dal*, which might be derived from the previous owner, the widow of Abraham Lucas Raepsaet. The first time the name Golden Rock is used is on the map made by A.H. Bisschop-Grevelink between 1839 and 1846. From that point on the name for the plantation and area remains unchanged. The plantation must have started to go out of use after that, because only one stone building and ruins are depicted on the Werbata map of 1915. The KLM aerocarto map of 1963 shows that there is a road going through the old plantation and that there are several fences put up in the area.

The test trenches have yielded an unexpected burial ground of approximately 15 visible burial outlines. However, it is likely that there are around 60-70 people buried here. The map that dates to the year 1781 shows that part of the slave settlement of the Golden Rock plantation was located in that area. On this map there is no indication of a cemetery. Previous archaeological excavations at slave settlements on the island, such as Schotsenhoek and Fairplay, also did not contain a burial ground in the vicinity of the slave settlement. There is still a lot unknown about the spatial about the spatial relationship of a slave settlement and this proves that more research is very much needed.

An overview of the three trenches can be found in appendix 1. Below, these three trenches are plotted on Google Earth (Fig. 25).
Photographs of trench 1 to 3 are shown below (Fig. 26 – Fig. 31).
Figure 26: Trench number 1 looking east to west. Photo: SECAR Staff.
Figure 27: Trench number 1 looking west to east. Photo: SECAR Staff.
Figure 28: Trench number 2 looking east to west. Photo: SECAR Staff.
Figure 29: Trench number 2 looking west to east. Photo: SECAR Staff.
Figure 30: Trench number 3 looking east to west. Photo: SECAR Staff.
Figure 31: Trench number 3 looking west to east. Photo: SECAR Staff.
3.2.1 Artifact Assemblage

The three test trenches yielded a total of 2165 artefacts. Table 1 shows what the material assemblage of all the three test trenches is comprised of. More than half of the archaeological material consists of ceramics and the second largest group after that is glass with almost 17%. Of the total ceramic assemblage, only 5.23% is determined Afro-Caribbean and 1.47% Amerindian.

Table 1: The artifact assemblage of all the test trenches.

<table>
<thead>
<tr>
<th></th>
<th>Ceramics</th>
<th>Pipe</th>
<th>Glass</th>
<th>Metal</th>
<th>Shell</th>
<th>Coral</th>
<th>Stone</th>
<th>Bricks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>1223</td>
<td>60</td>
<td>361</td>
<td>162</td>
<td>204</td>
<td>90</td>
<td>5</td>
<td>54</td>
</tr>
<tr>
<td>Perc. %</td>
<td>56.49</td>
<td>2.77</td>
<td>16.67</td>
<td>7.48</td>
<td>9.42</td>
<td>4.16</td>
<td>0.23</td>
<td>2.49</td>
</tr>
</tbody>
</table>

The overall mean date based on the historic ceramic assemblage all the test trenches is 1751. However, this date is an average of all the ceramic material and is only used as an indication. Most of the ceramic material has a very broad date range, but most of the material dates from the 18th century with some outliers going into the beginning of the 19th century.

Table 2: The artifact assemblage of test trench 1.

|                  | 0-10 m | 10-20 m | 20-30 m | 30-40 m | 40-50 m | 50-60 m | 60-70 m | 70-80 m | 80-90 m | 90-100 m | 100-110 m | 110-120 m | 120-130 m | 130-140 m | 140-150 m | 150-160 m | 160-170 m | 170-180 m | 180-190 m | 190-200 m | Total   |
|------------------|--------|---------|---------|---------|---------|---------|---------|---------|---------|-----------|------------|------------|------------|------------|------------|------------|------------|------------|------------|----------|----------|---------|
| Ceramics         | 250    | 150     | 150     | 90      | 70      | 62      | 47       | 11       | 4        | 5         | 4          | 2          | 3          | 1          | 1          | 1          | 10         | 10         | 12        | 6         | 1273     |
| Pipe stem/bowl   | 4      | 8       | 1       | 1       | 2       | 10       | 5        | 1        | 2        | 1         | 3          | 1          | 1          | 1          | 1          | 1          | 10         | 10         | 10        | 10        | 49       |
| Glass            | 94     | 105     | 14      | 8       | 26      | 25       | 20       | 6        | 1        | 10        | 13         | 10         | 3          | 3          | 1          | 1          | 10         | 10         | 10        | 10        | 297      |
| Metal            | 6      | 2       | 3       | 9       | 30      | 44       | 2         | 3        | 1        | 10        | 13         | 20         | 20         | 3          | 3          | 10         | 10         | 10        | 10        | 100      |
| Shell            | 20     | 40      | 12      | 1       | 10      | 15       | 3        | 1        | 1        | 12        | 8          | 10         | 1          | 1          | 1          | 10         | 10         | 10        | 10        | 135      |
| Coral            | 1      | 1       | 1       | 1       | 5       | 14       | 33       | 5        | 1        | 1         | 10         | 13         | 2          | 2          | 2          | 2          | 10         | 10         | 10        | 10        | 104      |
| Stone            | 1      | 1       | 2       | 1       | 1       | 1        | 1        | 1        | 1        | 1         | 10         | 10         | 1          | 1          | 1          | 10         | 10         | 10        | 10        | 104      |
| Bone             | 2      | 1       | 1       | 1       | 1       | 1        | 1        | 1        | 1        | 1         | 1          | 1          | 1          | 1          | 1          | 10         | 10         | 10        | 10        | 100      |
| Bricks           | 14     | 4       | 1       | 1       | 1       | 1        | 1        | 1        | 1        | 1         | 10         | 10         | 1          | 1          | 1          | 10         | 10         | 10        | 10        | 100      |
| Wood             | 0      | 0       | 0       | 0       | 0       | 0        | 0        | 0        | 0        | 0         | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0         | 0        |
| Total            | 1015   | 213     | 54      | 11      | 147     | 213      | 202      | 79       | 7        | 4         | 15         | 20         | 13         | 2          | 2          | 10         | 10         | 10        | 10        | 1231     |

Table 2 shows the material assemblage of test trench 1. The green columns in the table indicate the area that is interpreted as burial ground. Test trench 1 contains 58.49% of the whole material assemblage. Figure 32 shows the spatial distribution of the different types of artifacts found per 10 meter going from East to West. Of the total ceramic assemblage of trench 1, only 4.97% is determined Afro-Caribbean and 0.45% Amerindian.

Figure 32: The spatial distribution of artifacts in test trench 1.
The overall mean date based on the historic ceramic assemblage for test trench 1 is 1757. However, this date is an average of all the ceramic material and is only used as an indication. The historic ceramic material that has been found in the first 30 meters of test trench 1 shows more ceramic material from the 19th century. The mean date for the ceramic material found in the area of the burial ground (40-70 meters) is 1749. Based on the ceramic assemblage, the time range is probably 18th century up until the first quarter of the 19th century.

Table 3: The artifact assemblage of test trench 2.

<table>
<thead>
<tr>
<th>Trench</th>
<th>0-10 m</th>
<th>10-20 m</th>
<th>20-30 m</th>
<th>30-40 m</th>
<th>40-50 m</th>
<th>50-60 m</th>
<th>60-70 m</th>
<th>70-80 m</th>
<th>80-90 m</th>
<th>90-100 m</th>
<th>100-110 m</th>
<th>110-120 m</th>
<th>120-130 m</th>
<th>Total</th>
</tr>
</thead>
<tbody>
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<td>Ceramics</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Glass</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Metal</td>
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<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
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<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Coral</td>
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<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
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<td>5</td>
</tr>
<tr>
<td>Bricks</td>
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<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
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<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
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<td>5</td>
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<td>5</td>
<td>3</td>
<td>5</td>
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<td>5</td>
<td>3</td>
<td>5</td>
<td>3</td>
<td>245</td>
</tr>
</tbody>
</table>

Table 3 shows the material assemblage of test trench 2. The green columns in the table indicate the area that is interpreted as burial ground. Test trench 2 contains 40.14% of the whole material assemblage. Figure 33 shows the spatial distribution of the different types of artifacts found per 10 meter going from West to East. Of the total ceramic assemblage of trench 2, only 6.00% is determined Afro-Caribbean and 1.55% Amerindian.

Figure 33: The spatial distribution of artifacts in test trench 2

The overall mean date based on the historic ceramic assemblage for test trench 2 is 1742. However, this date is an average of all the ceramic material and is only used as an indication. The mean date for the ceramic material found in the area of the burial ground (140-160 meters) is 1746. In the area of the burial ground, the mass-produced ceramics that are called Pearlware (1775-1830) and Annular Ware (1782-1895) have not been found. Based on this absence, the time range for this part of the burial ground is 1700-1775.
Table 4: The artifact assemblage of test trench 3.

<table>
<thead>
<tr>
<th>Trench 3</th>
<th>0-10 m</th>
<th>10-20 m</th>
<th>20-30 m</th>
<th>30-40 m</th>
<th>40-50 m</th>
<th>50-60 m</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ceramics</td>
<td>3</td>
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<td>4</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>18</td>
</tr>
<tr>
<td>Pipe stem/bowl</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glass</td>
<td>4</td>
<td></td>
<td>2</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Metal</td>
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<td></td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shell</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coral</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stone</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bricks</td>
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<td>1</td>
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<td></td>
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<td>7</td>
<td>31</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4 shows the material assemblage of test trench 3. Test trench 3 contains 1.43% of the whole material assemblage. Figure 34 shows the spatial distribution of the different types of artifacts found per 10 meter going from East to West. Of the total ceramic assemblage of trench 3, 22.58% is determined Amerindian. All of the Amerindian ceramics have been found in the first 20 meters of trench 3.

![Figure 34: The spatial distribution of artifacts in test trench 3.](image)

The overall mean date based on the historic ceramic assemblage for test trench 2 is 1760. However, this date is an average of all the ceramic material and is only used as an indication. Based on the ceramic assemblage, the time range is probably 18th century up until the first quarter of the 19th century.

3.2.2 Features
A total number of 101 features have been identified in the three trenches (see appendix 1). Of this number, 61 features have been identified as a posthole, four as a ditch, two as a cooking pit, eight as a
pit, five as plough scars, one as a road, one as a donkey burial, one as a coral line/wall, fifteen as human burials and three unknown features. Photographs and drawings of the features can be found in appendix 2 and photographs of the artifacts found in the features in appendix 3.

Based on the artifacts found within these features, ten postholes, one cooking pit and two regular pits have been identified as Amerindian. Of the historic features, only thirteen contained artifacts that were datable. Of these thirteen features the average mean date is the year 1740. The mass produced ceramic Pearlware can only be found in four features, two of those features are a ditch, one a posthole and one a donkey burial. No ceramic type with a production manufacturing date later than Pearlware has been found in the features.

Since it will take too long to discuss each individual feature in great detail, only a few features will be highlighted below.

*Amerindian cooking pit*

The thirteen features that have been identified as Amerindian are all located on the eastern side of the trenches. The highest concentration of features is found in the first 30 meters of trench 2 and 3. This coincides with the highest concentration of Amerindian artefacts discussed section 3.2.1 Artifact Assemblage. Most features contained very little artifacts with the exception of one, feature 120. The location of this feature is indicated by the arrow on Figure 35.

![Figure 35: Amerindian features based on the artifacts found within the features. Feature 120 is indicated by the arrow.](image)
Feature 120 contained 119 artefacts of which the majority consisted of the shell *Citarium pica* (n=94) (Fig. 36). Other artefacts are grinding stones (Fig. 37), ceramics and flint. Based on the discovery of ashes, grinding stones and the large amount of shells, this feature is interpreted as a cooking pit for the preparation of food.

![Figure 36: Citarium pica, also known as West Indian Topshell (Photo: SECAR Staff).](image)

![Figure 37: The grinding stones, used for the preparation of food (Photo: SECAR Staff).](image)
Besides the material that is necessary for the production of food, also beautifully decorated ceramics were found in the cooking pit (Fig. 38) The decoration on this ceramics types this as Saladoid (500-800 A.D.), which has been found in the vicinity of this location during the 1980s (Versteeg and Schinkel 1990).

![Figure 38: Saladoid ceramics found in the cooking pit (Photo: SECAR Staff).](image)

**Donkey burial**
Located on the eastern side of trench 2 was feature 31, which was identified as a burial of a *Equus africanus asinus*, better known as a donkey. The donkey was positioned on its right side with the legs pushed up against its body. The overall condition of the remains was good except for the top part of the skull, which was most likely damaged during the excavation of the trench. Few artefacts were found in the feature and most of them date back to the 18th century. However, because Pearlware was found in the feature, it pushes the date back to the last quarter of the 18th century. Other material that was found was metal, coral and a pipe stem (see appendix 3).
3.2.2.1 Human Remains

Fifteen features have been identified as burials after the discovery of one adult burial in feature 48 and one child burial in feature 41. The outline of feature 48 was shaped like a sarcophagus. Several other features found in that area have this same outline. One feature does not necessarily mean one burial, due to the close proximity of one another it is possible that there are more burials in one feature. The high concentration of burials coincides with the highest concentration of different artifacts in trench 1 and 2 (see section 3.2.1 Artifact Assemblage). The location of the possible burial ground is indicated by the on Figure 40. Feature 48 has been excavated, and feature 41 has been partially excavated. Both are also indicated on Figure 40.
**Feature 41**

Feature 41 was partially excavated and contains the human remains of a child. The remains of the child together with some artifacts are left in situ. The feature is covered again for future excavation. A total number of 33 artifacts have been collected (see appendix 3) of which almost half of these artifacts are identified as coffin nails ($n=13$). No coffin wood was observed during the partial excavation of the feature. The mean date of the collected ceramics is 1751. However, all of the ceramics found in the feature has a broad production period with an overlap of the 18th century. Other material that was found was coral, glass and a pipe stem.

**Feature 48**

Feature 48 was excavated and contained the human remains of an adult (Fig. 41). The remains have been collected in parts with the surrounding soil around it. This method was chosen to support the fragile remains as much as possible and to dry it out as slowly as possible. No additional research has been conducted on the human remains yet due to the absence of a specialist in human remains. Therefore, the remains are stored and await further analysis.
The adult was positioned on its right side with the cranium in the southwestern direction. Both the arms and legs are flexed, with the hands located near both shoulders. The overall condition of the remains is poor except for the cranium. A disintegrated wooden object was lying on the sternum. One funerary item was found on the body and identified as a shroud pin. Possibly buried in a wooden coffin due to the fragments of wood observed around the remains and a vague coffin outline seen in Figure 42.
The artifacts that have been found with the human remains have been collected. The mean date for the ceramics is the year 1723. The production periods of the ceramics overlap in a period from of around the first quarter of the 18th century until the third quarter of the 18th century. The mean date and time period fits in the earlier discussed time range of 1700-1775, which was based on the ceramic material of the whole burial ground in trench 2 (section 3.2.1 Artifact Assemblage). Other material that was found was shell, metal, glass and pipe stems.

Another remarkable find in this area is a lock that has been found, on top of a feature that is possibly a burial (Fig. 43).

3.2.3 Profiles
Profile drawings were made for trenches 1, 2 and 3. Trench 1 has five profile drawings of a meter wide (Fig. 45 – Fig. 49), trench 2 has four profile drawings of a meter wide (Fig. 50 – Fig. 53) and trench 3 has two profile drawings of a meter wide (Fig. 54 – Fig. 55). These profile drawings are enclosed in appendix 2. Photographs were taken before drawing the profiles. An extra profile (Fig. 49) was photographed and drawn in trench 1 due to the presence of a lens that solely contained coral.
Trench 1

Figure 44 – Figure 49: Starting from the top left to the top left: Profile 1 and 2, second row left to right: Profile 3 and 4, bottom row: Profile with the coral lens (Photos: SECAR Staff).
Figure 50 – Figure 53: Starting from the top left to the top left: Profile 6 and 7, second row left to right: Profile 8 and 9 (Photos: SECAR Staff).

Figure 54 and Figure 55: Left to right: Profile 10 and 11 (Photos: SECAR Staff).
3.2.4 Interpretation
The features and the density of the archaeological material indicate that there are two sites on this location, a burial ground and part of the Golden Rock site. The two sites are each in a spatially distinct location from one another. Part of the Amerindian Golden Rock site is found around the eastern end of trench 1. The discovery of several postholes that go deep into the ground could mean that there might have been a wooden house or a *maloca*, a communal house, in this location many centuries ago. This would coincide with the fact that not a lot of Amerindian material is found, with the exception of the cooking pit. Amerindians would keep their living space clean of thrash and would often deposit this in certain locations. These locations with high concentrations of archaeological material are now called ‘middens’ by archaeologists. The discovery of the beautifully located Saladoid ceramics points in the direction that this is still part of the Golden Rock site that was partially excavated in the 1980s by Leiden University and NAAM.

The burial ground is located nearby the historic sugar plantation Golden Rock and might be related to the slave village that is seen on the historical maps. The burial ground probably dates from the start of the 18th century to the last quarter of the 18th century. The archaeological material that dates from after that period is located around the dry-stone wall that is found in the first 30 meters of trench 1. These dry-stone walls act as boundaries for land or roads and help against the erosion on the island. It could very well be that thrash accumulates around these walls. Another reason could be that the area near these walls was seen as a waste area where thrash could be deposited. Table 2-3 and Figure 32-33 show that there is a high concentration of different types of artifacts around the area of the burials. This shows that there was a heightened activity in this area. Another reason for the high density of archaeological material could have to do with the world vision of enslaved Africans back then. John Michael Vlach describes in his book that during the colonial period in some areas of the United States, burial grounds for enslaved people were scattered with ‘random’ objects. The reason that these objects were placed there because the deceased person had touched them last (Vlach 1990). Another artifact that has been found near a burial outline is also found in a similar context in Jamaica where a large lock was placed in the fill immediately above the coffin. Local Jamaicans who Jamaicans who witnessed the excavation were quick to comment on the use of locks to “keep the duppy down,” or to hold the spirit of the deceased in the ground (Armstrong and Fleischman 2003, 46-47). The vicinity of a possible slave village might also be the reason that a donkey is buried on the eastern side of trench 2. However, material from the burial itself suggest that it is from a later period than the burial ground where humans have been found.

3.3 Discussion and Recommendation
There are two spatially distinct sites located in the research area, a historic and prehistoric site. The fact that both an historic burial ground of possible enslaved Africans and an Amerindian site fall within the same research area is quite rare. This provides us with a unique opportunity to learn more about two groups that did not have a voice in history. Only very few large scale archaeological excavations have been conducted in the Lesser Antilles to investigate the lifeways of Amerindians. One of these large scale excavations was done on St. Eustatius in the 1980s (section 2.2.1 Golden Rock). To have the chance to expand, refine and build further on the baseline that was laid in the 1980s is an incredible opportunity.
Furthermore, if the current expectations are correct, then this would be one of the largest burial grounds for enslaved Africans (and possibly others) ever to have been found in the Caribbean, similar in size to the one found at Newton Plantation in Barbados (Handler and Lange 1978). In history, the oppressed often did not have a voice in history and because of this very little unbiased information about the everyday life of enslaved Africans in the Caribbean and thus on Statia exists. This research can provide more answer to questions about lifeways, socio-economic status, diet, origin and funerary practices. Additional archaeological research is therefore strongly recommended for both the area of the burial ground and for the Amerindian site (Fig. 56).

The area shown on the figure above will need to be completely stripped of its topsoil to to see the extent of both sites. The area to the left of the black rectangle can be used for further excavation of sand. In this way, the collection of sand for the construction of the roads will not be delayed.

When excavating a burial ground, the human remains will be removed and preserved ex situ. In this way, additional research is possible on the human remains. Analyses such as stable isotope analysis, DNA analysis and species analysis of coffin wood will provide insightful information to achieve this goal. Therefore, for the next phase we aim to provide answers to the following research questions:

1. What is the extent of the burial ground and what is the period of use?
2. What is the spatial relationship with the surrounding structures, such as the slave village that is listed on the 1781 map?
3. What are the funerary practices and how does this reflect on the same groups in the Caribbean?
4. What is the socio-economic status of the people who are buried here?
5. What are the dietary practices of the people who are buried here?
6. What are the origins of the people who are buried here?
7. What can be said about the lifeways of the people who are buried here?
8. How does this burial ground compare to other burial grounds in the Caribbean?

When excavating an Amerindian site, the most numerous features are often postholes, which are manifested by discolorations in the subsoil. They can be used to reconstruct buildings and even entire settlements. Uncovered house plans can provide insightful information on settlement patterns and spatial
distribution of the site. This will provide a better understanding of the lifeways of the island’s indigenous people. Additional radiocarbon analysis can help to refine the Amerindian site’s period of occupation. Therefore, for the next phase we aim to provide answers to the following research questions:

1. What is the age of the site and how does this relate to the earlier found dates during the 1980s by Leiden University?
2. What is the settlement pattern and spatial layout of the site?
3. If burials are to be found, what are the funerary practices and how do these relate to earlier found burials at the site?
4. What can be said about people’s diet based on food remains and stable isotope analysis of possible bones?
5. What can be said about the lifeways of the people living at the Golden Rock site?
6. How does this research reflect upon the earlier research results of the 1980s?
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Appendix 1 Overview Test Trenches
Excavated Trenches and Uncovered Features
Plan View
RS, FvK, AH, AB
10 Nov 2020
Appendix 2 Feature Sections and Profiles
Features

Feature 1

Tranch 1
Feature 1
1:10
AH
17 Sep 2020

#1: Yellow; Semi-Compact; Silty Loam; Inclusions of Gravel
#2: Dark Grey Brown; Loose; Lightly-Sandy; Silty Loam; Inclusions of Gravel

Feature 2

Tranch 1
Feature 2
1:10
AH
17 Sep 2020

#1: Yellow; Semi-Compact; Silty Loam; Inclusions of Gravel
#2: Light Greyish-Brown; Silty Loam; Inclusions of Medium Amounts of Rocks
#3: Greyish-Brown; Silty Loam; Inclusions of Large Amounts of Gravel
#4: Dark Greyish-Brown; Loose; Lightly-Sandy; Silty Loam; Inclusions of Gravel

Feature 3

Tranch 1
Feature 3
1:10
AH
17 Sep 2020

#1: Yellow; Semi-Compact; Silty Loam; Inclusions of Gravel
#2: Dark Greyish-Brown; Semi-Compact; Lightly-Sandy; Silty Loam; Inclusions of Gravel
Feature 10 and 11

Feature 12 and 13

Feature 14

Trench 1
Feature 10 and 11
1:10
AH
21 Sep 2020

#1: Yellow; Semi-Compact; Gravel Loam; Inclusions of Small Amounts of Gravel and Gravels

#2: Dark Greyish-Brown; Semi-Compact; Lightly-Sandy; Silty Loam; Inclusions of Small Amounts of Gravel and Gravels

Trench 1
Feature 12 and 13
1:10
AH
21 Sep 2020

#1: Yellow; Semi-Compact; Silty Loam; Inclusions of Medium Amounts of Pebbels and Gravel

#2: Dark Greyish-Brown; Semi-Compact; Lightly-Sandy; Silty Loam; Inclusions of Small Amounts of Gravel and Gravels

Trench 1
Feature 14
1:10
AH
21 Sep 2020

#1: Yellow; Compact; Silty Loam; Inclusions of Small Amounts of Pebbles and Gravel

#2: Dark Greyish-Brown; Semi-Compact; Lightly-Sandy; Silty Loam; Inclusions of Small Amounts of Gravel and Gravels
Feature 15

Trench 1
Feature 15
1:10
AH
21 Sep 2020

#1: Yellow; Compact; Silty Loam; Inclusions of Small Amounts of Pebbles and Gravel

#2: Dark Greyish-Brown; Semi-Compact; Lightly-Sandy; Silty Loam; Inclusions of Small Amounts of Pebbles and Rootlets

Feature 21 and 22

Trench 1
Features 21 and 22
1:10
AH
23 Sep 2020

#1: Yellow; Semi-Compact; Silty Loam; Inclusions of Large Amounts of Gravel, Pebbles, and Rocks

#2: Dark Greyish-Brown; Loose; Lightly-Sandy, Silty Loam; Inclusions of Large Amounts of Gravel, Pebbles, and Rootlets

Feature 23

Trench 1
Feature 23
1:10
AH
21 Sep 2020

#1: Yellow; Semi-Compact; Silty Loam; Inclusions of Large Amounts of Gravel, Pebbles, and Rocks

#2: Dark Greyish-Brown; Loose; Lightly-Sandy, Silty Loam; Inclusions of Small Amounts of Rootlets
Feature 24

Trench 1
Feature 24
1:10
AH
21 Sep 2020

#1: Yellow; Semi-Compact; Silty Loam; Inclusions of Large Amounts of Gravel and Pebbles
#2: Dark Greyish Brown; Compact; Lightly-Sandy, Silty Loam; Inclusions of Small Amounts of Rootlets and Gravel

Feature 25

Trench 1
Feature 25
1:10
AH
23 Sep 2020

#1: Yellow; Semi-Compact; Silty Loam; Inclusions of Large Amounts of Gravel and Pebbles
#2: Dark Greyish Brown; Semi-Compact; Lightly-Sandy, Silty Loam; Inclusions of Large Amounts of Gravel and Pebbles

Feature 26

Trench 1
Feature 26
1:10
AH
21 Sep 2020

#1: Yellow; Semi-Compact; Silty Loam; Inclusions of Large Amounts of Pebbles and Gravel
#2: Dark Greyish Brown; Compact; Lightly-Sandy, Silty Loam; Inclusions of Small Amounts of Rootlets
Feature 27

Trench 2
Feature 27
1:10
AH
6 Oct 2020

#1: Yellow; Loose; Silty Loam; Inclusions of Medium Amounts of Gravel and Small Rocks

#2: Dark Greyish-Brown; Compact; Lightly-Sandy, Silty Loam; Inclusions of Small Amounts of Gravel and Rootlets

Feature 29

Trench 2
Feature 29
1:10
AH
6 Oct 2020

#1: Grey; Compact; Sandy; Inclusions of Large Amounts of Gravel

#2: Yellow; Loose; Lightly-Sandy, Silty Loam; Inclusions of Medium Amounts of Sand, Gravel, and Small Rocks

#3: Dark Greyish-Brown; Loose; Lightly-Sandy, Silty Loam; Inclusions of Medium Amounts of Rootlets, Sand, Small Rocks, and Gravel

Feature 32

Trench 2
Feature 32
1:10
AH
6 Oct 2020

#1: Yellow; Compact; Silty Loam; Inclusions of Small Amounts of Rootlets

#2: Dark Greyish-Brown; Very Compact; Lightly-Sandy, Silty Loam; Inclusions of Small Amounts of Roots, Small Rocks, and Rootlets
Feature 33

Trench 2
Feature 33
1:10
AH
6 Oct 2020

#1: Yellow; Compact; Silty Loam; Inclusions of Medium Amounts of Gravel, Rocks, Rootlets, and Small Rocks

#2: Dark Greyish-Brown; Compact; Lightly-Sandy, Silty Loam; Inclusions of Small Amounts of Small Rocks and Rootlets

Feature 36

Trench 2
Feature 36
1:10
AH
6 Oct 2020

#1: Yellow; Compact; Silty Loam; Inclusions of Medium Amounts of Gravel, Rootlets, and Small Rocks

#2: Dark Greyish-Brown; Compact; Lightly-Sandy, Silty Loam; Inclusions of Small Amounts of Small Rocks and Rootlets

Feature 37

Trench 2
Feature 37
1:10
AH
6 Oct 2020

#1: Yellow; Compact; Silty Loam; Inclusions of Small Amounts of Gravel, Rootlets, and Small Rocks

#2: Dark Greyish-Brown; Compact; Lightly-Sandy, Silty Loam; Inclusions of Small Amounts of Small Rocks and Rootlets
Feature 41

Feature 50

Feature 55
Feature 56

Trench 1
Feature 56
1:10
AH
6 Oct 2020

#1: Yellow; Loose; Silty Loam; Inclusions of Medium Amounts of Gravel, Small Rocks, Roots and Rootlets

#2: Dark Greyish-Brown; Compact; Lightly-Sandy, Silty Loam; Inclusions of Small Amounts of Rootlets

Feature 57

Trench 1
Feature 57
1:10
AH
Oct 2020

#1: Yellow; Compact; Silty Loam; Inclusions of Medium Amounts of Gravel and Small Rocks

#2: Dark Greyish-Brown; Compact; Lightly-Sandy, Silty Loam; Inclusions of Small Amounts of Gravel and Rootlets

Feature 58

Trench 1
Feature 58
1:10
AH
6 Oct 2020

#1: Light Grey; Loose; Lightly-Sandy, Volcanic Ash; Inclusions of Large Amounts of Gravel, Small and Medium Rocks

#2: Yellow; Compact; Silty Loam; Inclusions of Medium Amounts of Gravel and Small Rocks

#3: Dark Greyish-Brown; Compact; Lightly-Sandy, Silty Loam; Inclusions of Small Amounts of Rootlets and Gravel
Feature 71

Feature 73

Trench 2
Feature 73
1:10
AH
9 Oct 2020

#1: Light Grey; Loose; Sandy; Volcanic Ash; Inclusions of Large Amounts of Gravel and Rocks

#2: Brown; Loose; Fine; Silty Loam; Inclusions of Large Amounts of Rootlets

#3: Greyish-Yellow; Loose; Silty Loam; Inclusions of Medium Amounts of Small Rocks

#4: Light Brown; Semi-Compact; Lightly-Sandy; Silty Loam; Inclusions of Very Few Rootlets

#5: Yellow; Semi-Compact; Silty Loam; Inclusions of Very Few Rootlets and Yellow Rocks

#6: Dark Greyish-Brown; Semi-Compact; Lightly-Sandy; Silty Loam; Inclusions of Medium Amounts of Rootlets, Roots, Yellow Rocks, and Small Rocks
Feature 74

Trench 2
Feature 74
1:10
AH
6 Nov 2020

#1: Yellow; Compact; Silty Loam; Inclusions of Small Amounts of Yellow Rocks and Rootlets

#2: Dark Greyish-Brown; Compact; Lightly-Sandy, Silty Loam; Inclusions of Small Amounts of Grey Clay Concentrations and Rootlets

Feature 75

Trench 2
Feature 75
1:10
AH
9 Oct 2020

#1: Yellow; Semi-Compact; Silty Loam; Inclusions of Medium Amounts of Gravel, Rootlets, Yellow Rocks, and Pebbles

#2: Dark Greyish Brown; Semi-Compact; Lightly-Sandy, Silty Loam; Inclusions of Small Amounts of Rootlets and Medium Amounts of Pebbles and Yellow Rocks

#3: Greyish Brown; Very Loose; Lightly-Sandy, Silty Loam; Topsoil; Inclusions of Large Amounts of Rootlets, Gravel, and Pebbles

Feature 76

Trench 2
Feature 76
1:10
AH
6 Nov 2020

#1: Yellow; Compact; Silty Loam; Inclusions of Small Amounts of Yellow Rocks and Very Few Rootlets

#2: Dark Greyish-Brown; Compact; Lightly-Sandy, Silty Loam; Inclusions of Small Amounts of Yellow Rocks and Rootlets
Feature 78

Trench 2
Feature 78
1:10
AH
6 Nov 2020

#1: Yellow; Compact; Silty Loam; Inclusions of Small Amounts of Yellow Rocks

#2: Dark Greyish-Brown; Compact; Lightly-Sandy, Silty Loam; Inclusions of Very Small Amounts of Yellow Rocks and Rootlets

Feature 81

Trench 2
Feature 81
1:10
AH
6 Nov 2020

#1: Yellow; Extremely Loose; Sandy Loam; Inclusions of Large Amounts of Rootlets and Small Rocks

#2: Dark Greyish-Brown; Semi-Loose; Lightly-Sandy, Silty Loam; Inclusions of Medium Amounts of Rootlets

Feature 82 (Wrong feature number displayed drawing)

Trench 1
Feature 57
1:10
AH
Oct 2020

#1: Light Grey; Loose; Sandy, Volcanic Ash; Inclusions of Large Amounts of Gravel and Rocks

#2: Yellow; Compact; Silty Loam; Inclusions of Medium Amounts of Rootlets, Pebbles, and Rocks

#3: Dark Greyish-Brown; Compact; Lightly-Sandy, Silty Loam; Inclusions of Small Amounts of Rootlets and Pebbles
Feature 83

Feature 85

Feature 90 (sign displays the wrong feature number)
Feature 93

Trench 2
Feature 93
1:10
AH
6 Nov 2020

#1: Yellow; Compact; Silty Loam; Inclusions of Small Amounts of Yellow Rocks and Rootlets

#2: Dark Greyish-Brown; Compact; Lightly-Sandy, Silty Loam; Inclusions of Small Amounts of Yellow Rocks and Rootlets

Feature 94

Trench 2
Feature 94
1:10
AH
6 Nov 2020

#1: Brown; Very Loose; Sandy Loam; Inclusions of Large Amounts of Small Rocks and Rootlets; Highly Disturbed

#2: Yellow; Compact; Silty Loam; Inclusions ofMedium Amounts of Rootlets and Pebbles

#3: Dark Greyish-Brown; Very Compact; Lightly-Sandy, Silty Loam; Inclusions of Medium Amounts of Small Rocks, Yellow Rocks, and Rootlets
Feature 96

Trench 2
Feature 96
1:10
AH
6 Nov 2020

#1: Yellow; Compact; Silty Loam; Inclusions of Small Amounts of Rootlets

#2: Dark Greyish-Brown; Semi-Compact; Lightly-Sandy, Silty Loam; Inclusions of Small Amounts of Rootlets

Feature 97

Trench 2
Feature 97
1:10
AH
8 Oct 2020

#1: Yellow; Compact; Silty Loam; Inclusions of Small Amounts of Rootlets, Yellow Rocks, and Gravel

#2: Dark Greyish-Brown; Compact; Lightly-Sandy, Silty Loam; Inclusions of Medium Amounts of Rootlets and Yellow Rocks

Feature 99

Trench 2
Feature 99
1:10
AH
7 Oct 2020

#1: Grey; Loamy; Gravel with Sand; Inclusions of Few Rocks

#2: Yellow Very Loamy; Silty Loam; Inclusions of Large Amounts of Rootlets, Gravel and Rocks; Left Side is Mixed with Layer 3 and Contains a Larger Amounts of Rocks and Gravel

#3: Dark Greyish-Brown; Semi-Compact; Lightly-Sandy, Silty Loam; Inclusions of Medium Amounts of Rootlets and Small Rocks; Fill Contains Some Lighter Soil Layers Throughout
Feature 109

Feature 112

Feature 117
Feature 118

Trench 3
Feature 118
1:10
AH
8 Oct 2020

1: Light Grey; Loose; Sandy; Volcanic Ash; Inclusions of Very Large Amounts of Gravel, Rootlets, and Rocks

2: Yellow; Semi-Compact; Silty Loam; Inclusions of Medium Amounts of Rootlets, Yellow Rocks, and Pebbles

3: Dark Greyish-Brown; Semi-Compact, with Roots, Especially on Left Side, Loosening Soil; Lightly-Sandy, Silty Loam; Inclusions of Large Amounts of Rootlets and Medium Amounts of Pebbles, Yellow Rocks, and Shell Fragments

Feature 120

Feature 122

Trench 3
Feature 122
1:10
AH
8 Oct 2020

1: Yellow; Compact; Silty Loam; Inclusions of Very Small Amounts of Gravel and Rootlets

2: Dark Greyish-Brown; Compact; Lightly-Sandy, Silty Loam; Inclusions of Small Amounts of Rootlets and Yellow Rocks
Feature 123

Trench 3
Feature 121
1:10
AH
9 Oct 2020

#1: Light Grey; Mixed; Inclusions of Sand and Ash

#2: Light Grey; Mixed; Comprised Mostly of Rocks with Sand and Ash

#3: Light Grey/Grey; Mixed with Yellow and Grey Sand; Comprised Almost Completely of Small and Medium Rocks

#4: Greyish-Brown; Compact; Lightly-Sandy Loam; Inclusions of Small Rocks

#5: Yellow; Compact; Sandy Loam; Inclusions of Small Rocks and Few Rootlets

#6: Dark Grey; Loose; Lightly-Sandy Loam; Inclusions of Small Amounts of Rootlets and Small Rocks

Feature 125 and 126

Trench 3
Feature 125 and 126
1:10
AH
6 Nov 2020

#1: Greyish-Yellow; Very Loose; Sandy, Silty Loam; Inclusions of Large Amounts of Rocks

#2: Yellow; Compact; Silty Loam; Inclusions of Large Amounts of Rootlets and Gravel

#3: Dark Greyish-Brown; Lightly-Sandy, Silty Loam; Inclusions of Medium Amounts of Rootlets, With Concentration at the Bottom of Feature

#4: Dark Greyish-Brown; Lightly-Sandy, Silty Loam; Inclusions of Small Amounts of Rootlets and Large Amounts of Ash
Feature 127

Feature 130

Trench 2
Feature 130
1:10
AH
6 Nov 2020

#1: Grey/Dark Grey; Very Loose; Inclusions of Gravel and Rocks with Some Sand

#2: Yellow; Semi-Loose; Silty Loam; Inclusions of Large Amounts of Small and Medium Rocks and Medium Amounts of Rootlets

#3: Dark Greyish-Brown; Loose; Lightly-Sandy, Silty Loam; Inclusions of Large Amounts of Roots, Rootlets, Gravel, and Small Rocks
Appendix 3 Photographs Artifacts from Features
Trench 1

Feature 1

Feature 2

Feature 5
Feature 11

Feature 12

Feature 13
Feature 46

Feature 48
Feature 50

Feature 90
<table>
<thead>
<tr>
<th>Feature 127</th>
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