Contents

Preface

This following report is the final result of a research program that was conducted by a team of Dutch archaeologists in October 2004. This research was a continuation of a study at the pre-historic Amerindian SAN 1 village site on Trinidad's Eastern Shore, which started in 1997. During this initial phase of research the site was mapped and subsoil tested by means of an augertest program and three small test excavation pits. This resulted in two Master thesis's by M.C. Dorst and D.C. Nieweg.[1] During more intensive excavation campaigns in 2001, 2003 and 2004 one of four habitation areas was studied in more detail, which was initiated by Prof. K.O. Laurence of the Department of History of the University of the West Indies. The fieldwork that is reported here was a continuation of research at this habitation spot. The University of the West Indies partly funded this project after approval of the research proposal[2], which was used for housing, food and transport. The aim of this fourth year of fieldwork at the SAN 1 site at Manzanilla was to collect more data on an Amerindian habitation site at Trinidad and compare this data with other habitation sites in the Caribbean Region.
The team in 2004 consisted of six persons, including:

Mr. M.C. Dorst,	MSc. in archaeology, currently working for BOOR (archaeological department of the municipal Rotterdam), Holland
Mr. A. Muller,	MSc in archaeology, currently working for RAAP (archaeological contract company), Holland
Mrs. E. Altena,	MSc. in archaeology, osteo-archaeologist, currently working for the ADC (archaeological contract company), Holland
Mr. R. Jansen,	MSc. in archaeology, currently working for ARCHOL (archaeological contract company) and the Leiden University, Holland
Mr. T. Hamburg	MSc. in archaeology, currently working for ARCHOL (archaeological contract company), Holland
Mrs. M. Opbroek	BA in archaeology, currently working for the archaeological department of the municipal Den Haag, Holland

During the fieldwork mrs. E. Altena was responsible for the study of the inhumations. Drawings of the burials were done by E. Altena, M.C. Dorst and A. Muller. Artefact drawings and AutoCad drawings of levels, profiles and maps were done by M.C. Dorst, and R. Jansen.

[1] Dorst, M.C., 2000, *Manzanilla 1, An archaeological survey of a Pre-Colombian site on Trinidad. Spatial patterning, ceramics, lithics and faunal remains.*
Nieweg, D.C., 2000, *Shells in Archaeology, Archaeological shell on Trinidad and Guadeloupe: two case studies.*

[2] Dorst, M.C., 2001, *Manzanilla 1 (SAN 1) Phase II proposal. The study of a patch of open space at a Pre-Columbian site in Trinidad.* March 4, 2001

Acknowledgements

Many debts, both personal and professional, must be acknowledged here, for without the help, trust and enthusiasm of many people this project would never have been a success.
The first of these are those who made this project possible, Prof. K.O. Laurence and Mr B. Reid, lecturer in Archaeology from the Department of History of the University of the West-Indies.
Their commitment and interest in this project made it possible in the first place.
Furthermore, special thanks are due to Dr. A. Boomert, formerly working as a Senior Research Fellow in Archaeology at UWI for correcting the English. Mr Douglas of Dougies guesthouse, Manzanilla, Mr Shinanan, present-day owner of the Manzanilla 1 site hill also receive our special thanks. Many thanks also go to Pat, Jeffrey, Jack, Michael, Joseph, Andy, Ammadel, Pinken and Michael for their warm friendship and brilliant cooking en of course Jeanne, Bianca and Cindy for their friendship and hot coffee and cold Caribs served when desperately needed.
BOOR receive my thanks for letting me use the facilities at the office.
And of course, last but most certainly not least all members of this excavation team; Eveline, Marieken, Tom, Axel and Richard, who, with the help of a lot of interest, humor, sun, fun, Carib and Black Label made this campaign, again, successful and fun.

Chapter 1 Introduction: Trinidad and the Manzanilla SAN1 site

In this chapter the setting of both Trinidad as well as the Manzanilla 1 site are described. This includes the geographic setting (1.1) and the geological conditions of the local surroundings of the site (1.2). A cultural and chronological framework is presented in paragraph 1.3. Paragraph 1.4 consists of a short summary of previous research at the SAN 1 site at Manzanilla. Finally, in paragraph 1.5 the research objectives of the fieldwork in 2003 are stated.

1.1 Geographical setting

Trinidad is one of the Caribbean islands situated just north (18 km) of Venezuela in the mouth of the Orinoco river system, separated by the waterway called the Dragon's Mouth. Its western shores face the Atlantic Ocean, while the eastern coast borders the calm, brackish waters of the Gulf of Paria. The closest neighbouring island is Tobago, located some 32 km north of Trinidad. Both islands are separated by a sea-channel, which is called the Galleons Passage. At a distance of some 150-kilometre north, the first island of the Lesser Antilles, Grenada is situated (Figure 1). Its climate is characterised by humid and tropical conditions with two seasons. The dry season called *caraime* normally last from January to May. This is followed by a wet season which lasts from June to December and is interrupted by a short dry season (*petit caraime*) somewhere in September. Rainfall in Trinidad is fairly related to its physiographic nature. Due to its close orientation near the tropical lowlands of South-America, its flora and fauna is very much alike.

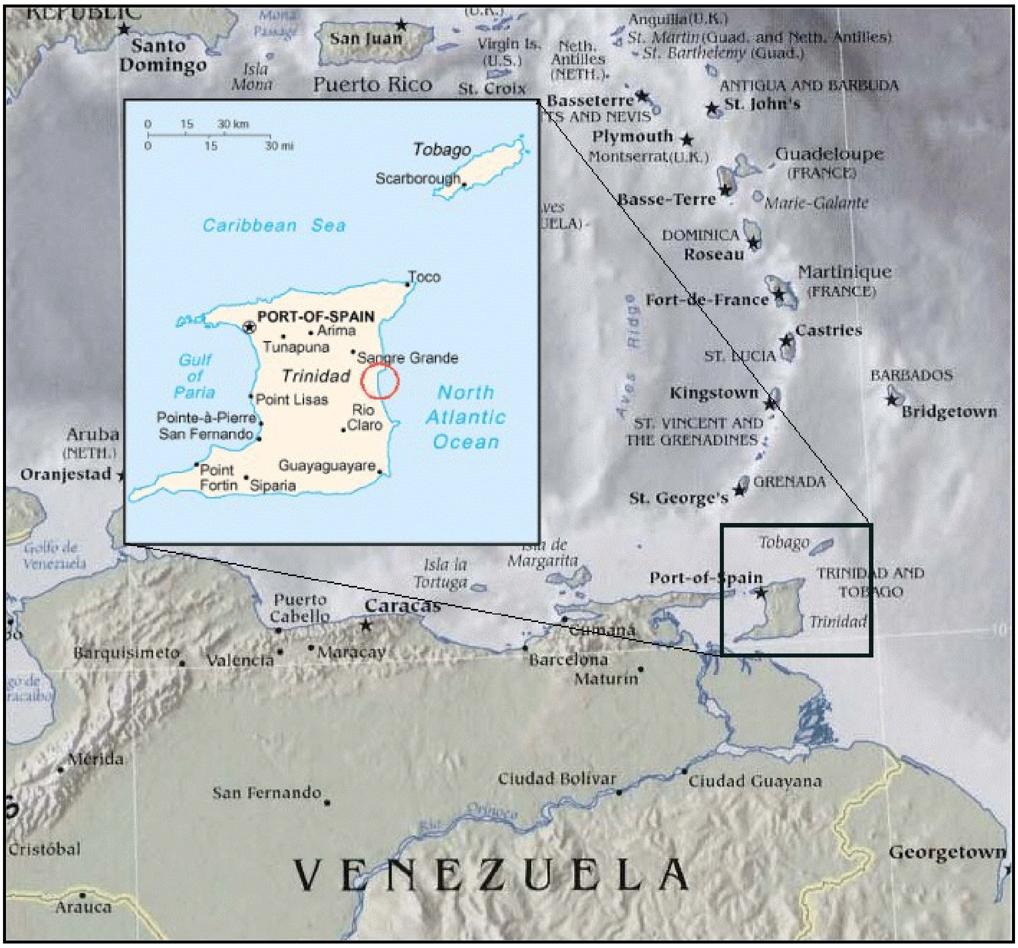


Fig. 1 Trinidad and the research area of the Manzanilla (SAN I) site

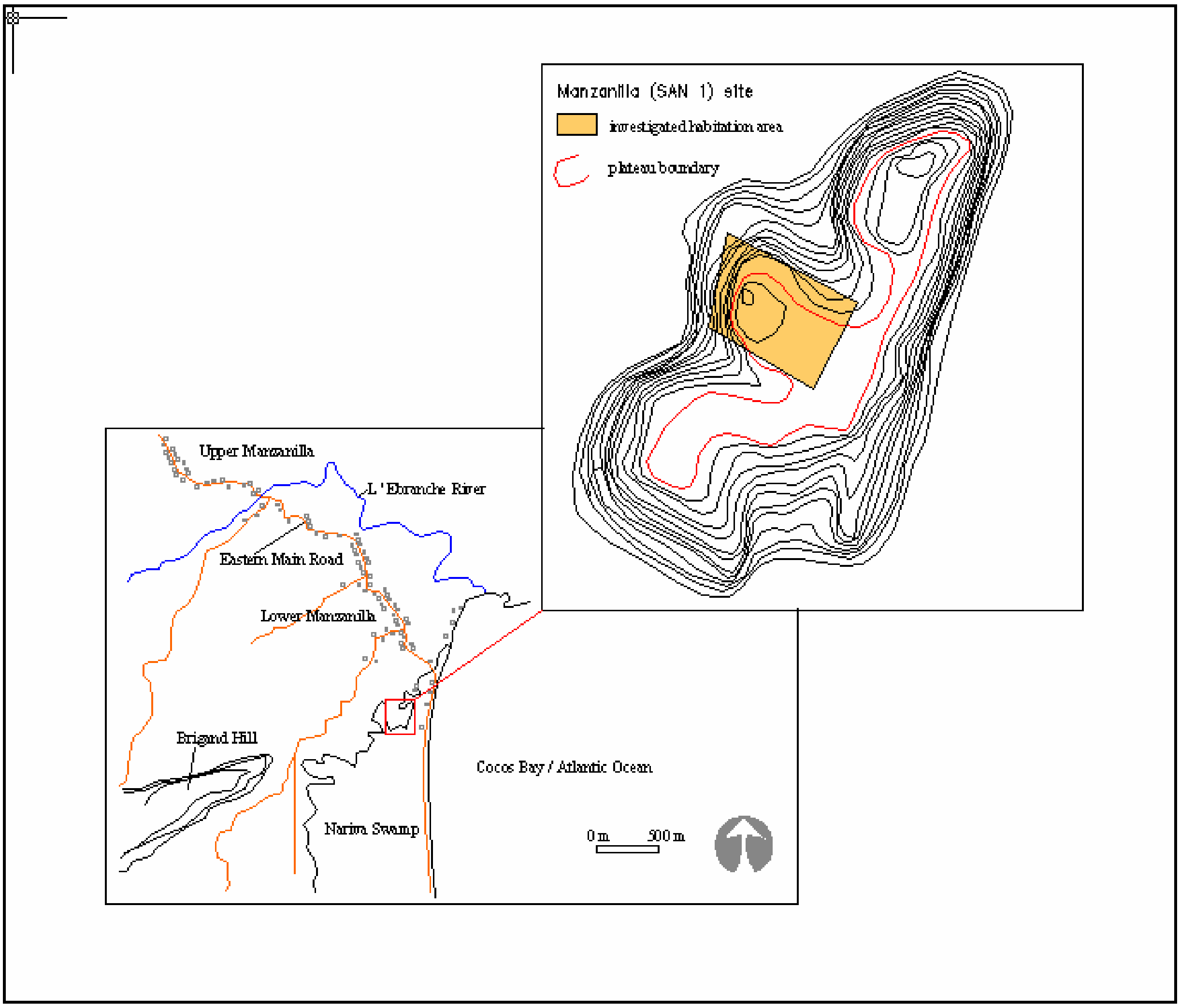


Fig. 2 The location of the SAN I site and borders of the studied research area

The site of Manzanilla 1 is located on Trinidad's central eastern coast in the County of St. Andrew near the town of Lower Manzanilla (Figures 1 and 2). This is some 400 m south of the point were the Eastern Main Road reaches the Atlantic coast and continues as the Manzanilla-Mayaro Road in southern direction, running parallel to the Cocos Bay coastline. From this point the site can be reached by walking some 150 m trough the most northern tip of the Nariva Swamp reaching the Manzanilla 1 hill on the left-hand side[3] (Figure 2). It is situated some 300 m south of the cemetery of Lower Manzanilla and the flat plateau top covers a total area of some 200×250 m. Today this hill is owned by Mr. Sinanan. The southern part is covered with forest and overgrown gardens which once belonged to mr. Ronald Joseph who still lives in a small house on this side of the hill. The northern part of the hill was recently (2000) cleared of vegetation in order to develop the site in the near future. However, this development program was stopped when the owner was informed about the archaeological value of this site.

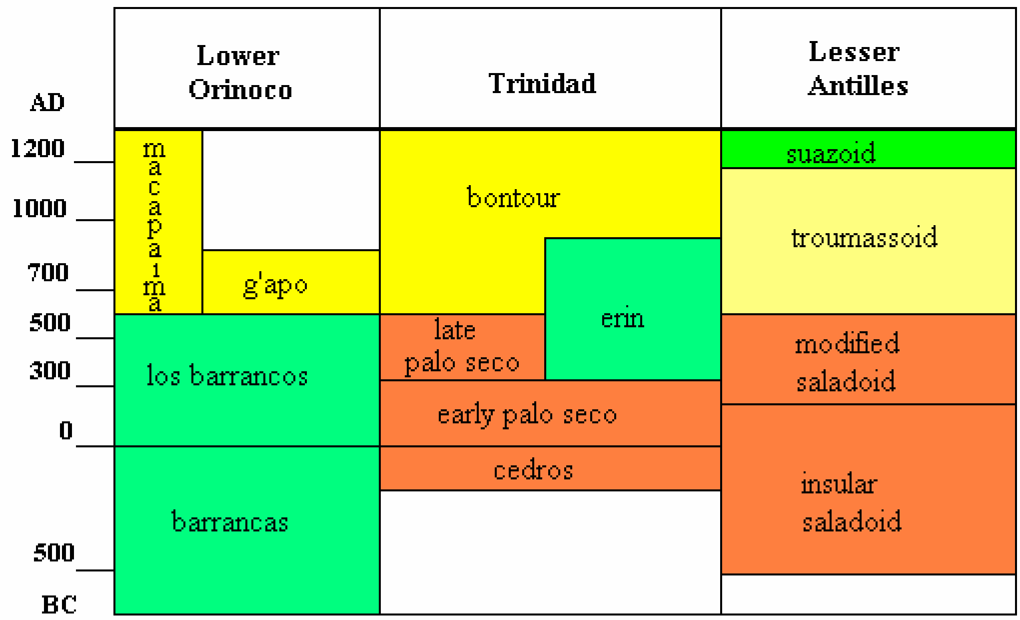
[3] Trinidad topographical map 1:25,000, Sheet 36, co-ordinates 713,725-750 E/1,161,825 N.

1.2 Geological setting

The Manzanilla 1 site is situated on the border of two geological divisions called the Southern Basin or Naparima Lowlands and the Central Range. The low hill where the site is located marks the transition of the soft yellowish Lower Tertiary and Cretaceous hills and the lower region of Miocene and Pliocene sandstones, siltstones and clays. From this Central Range many seasonal rivers and streams drain in the large Nariva swamp, which most northern extension encompass the seaside slopes of the Manzanilla 1 site.

1.3 Cultural and chronological framework

In terms of ceramic style, two ceramic complexes belonging to two different series were so far recognised at the Manzanilla 1 site. The Saladoid series is represented by the Late Palo Seco complex (AD 300-AD 650). The Arauquinoid series (called Guayabitoid in Trinidad) is represented by the Bontour complex (AD 650-AD 1400) (see table below).



Chronological chart of ceramic complexes on Trinidad and the Caribbean region (after Boomert,2000:218 fig. 15)

From AD 0 the Cedrosan ceramic style became more and more influenced by a ceramic style on the mainland of South-America (Orinoco region) called the Barrancoid. This Barrancoid culture strongly influenced the Cedrosan ceramic style and forms a characteristic ceramic complex within the Cedrosan Saladoid in Trinidad, which is called the Palo Seco style. In the Lesser Antilles this style is called the *Modified Saladoid* (Rouse, 1995) and roughly corresponds with the same time span, from AD 300-AD 650. This Barrancoid influence in Cedrosan Saladoid pottery is signified by the following characteristics: the sherds become thicker and coarser, flanges are added to the rims and by the appearance of modelled-incised lugs. Furthermore, the incised and modelled designs become more complex and elaborated and punctations are added to the range of ceramic decorations (Rouse, 1963:117). The current definition of the Palo Seco complex is still mainly based on this Barrancoid influence in the Saladoid ceramics, although it is now separated into an Early Palo Seco (0-AD 350) and a Late Palo Seco (AD 300-AD 650). This separation is based on the degree of Barrancoid influence on the Palo Seco ceramics.

According to Harris the shift towards the Arauquinoid series is caused by a downfall in power of the Barrancoid on the mainland (around AD 600-700) in the Middle-Orinoco region.
Following this collapse, or causing it, the Arauquinoid started expanding downwards along the Orinoco touching upon Trinidad around AD 600, thereby introducing a completely different ceramic style in the Caribbean region which suggests a major shift in culture (Harris, 1977).
Arauquinoid ceramics are characterised by the following features: pottery has thin walls, is relatively soft and predominantly tempered with shell and further with ground sherd and sand.
New temper types are mica, cauixi and *caraipe*. Boomert (1983) and Harris (1983) consider these three temper variations to reflect social relationships with other areas (Orinoco region and Guianas) due to its exotic origin.
The most striking feature of this ceramic style is that decorations are very rare. Only 2-3% of sherds in the Bontour complex has some kind of decoration which vary from punctated, incised and simple modelled decorations. Small rim knobs, wall appendages and triangular, trapezoidal and "horned" rim lugs, sometimes with a central perforation and few zoomorphic adornos occur. Appliqué decorations appear for the first time.

As Boomert (2000) states, the Saladoid/Barrancoid socio-economic and political organisation was probably a tribal society. Within such an egalitarian system the social society consists of a group of interacting, semi-independent local communities. These are linked by a network of descend groups, trade and reciprocal exchange and ceremonial and shamanic interaction. Status variations within this system is very small and are only important in special occasions such as organising ceremonies, raids or war-parties and hunting. In such a case the most capable person is selected for the specific task. Labour division is only based on sex and age and semi-specialists only work within the local community group (Boomert 2000:328).
These tribal systems are mainly very homogeneous and standardised in cultural aspects. Furthermore, it is ideologically and religiously based and local differentiation in material culture is almost non-existing (Voss,1982).

1.4 Previous research at the SAN 1 site

It is not clear when and by whom the Manzanilla 1 site was discovered. According to Boomert (1984) the site was found in the late 1930's and known by John A. Bullbrook in the early 1940's. The problem here is that, as Boomert mentions, on the maps of both Bullbrook (1961a) and Rouse (1955a fig.13) the site is located too far to the north. Based on a description by Bullbrook of a single headlug from this site, which Rouse identified as belonging to the Palo Seco complex this site was classified as a Palo Seco site. However, it is possible that the described site was not the SAN 1 site at Manzanilla. This because of it is incorrect location on their maps.

Research before 1997

In an article by Phil Vieira in the Sunday Guardian (12th of May 1963:4) an excavation was reported on a site that fits the described location and characteristics of the Manzanilla 1 site. This site was located at Manzanilla, facing the Atlantic Ocean and situated not far from the sea. The location of a small stream in the vicinity and a total area of the midden covering three to five acres (between 12.141 and 20.235 m^2) are also mentioned.
Although these are quite general features for a Palo Seco site it is likely that this is the Manzanilla 1 site. Furthermore, this article states that this excavation is carried out at:..."*a new Indian Midden at Manzanilla.*", which indicates that the site might be discovered somewhere in the early 1960's.
This excavation was carried out on the 1st. of May 1963 by three students (of whom two were from St. Mary's College, P.O.S[4]) and J. Archibald, Civil Engineer led by Mr. T. Cambridge, the chairman of the National Museum and Mr. A. Collier, the secretary director of the Trinidad Publishing Co. A testpit was dug and a surface survey was executed yielding a range of artefacts like ceramic bowls, jars and two adornos, stone axes and faunal remains.

[4] Port of Spain

Unfortunately neither the location of this testpit nor any stratigraphic information is given in this article. Cambridge describes one of the adornos as:"....*a representation in grotesque form of a human in brownish clay...*" and identifies the two "faces" as of a similar make to several adornos which were found in Tobago.
The presence of many Barrancoid sites on Tobago, Cambridge comparison of the adornos with those found on Tobago and his description of one adorno as "grotesque" could indicate that those belong to the Barrancoid complex. He also states that an axe was found that was:"...*made from a stone not often found in Trinidad.*", possibly igneous rock.
The present whereabouts of this collection is unknown, but Boomert (1998) noted that some pieces of this collection are kept in the Tobago Museum of History. After this the Manzanilla 1 site is mentioned again in a letter from Gloria Gilchrist to Rouse dated the 8th of January 1964.
Gilchrist reports that a priest N. Rodriquez and some students from St. Mary's College have been digging in a very large shell mound at Manzanilla. He also made a testpit on an unspecified location, digging through a midden accumulation of some 105 cm in thickness yielding pottery, stone artefacts, faunal remains and a burial.
Gilchrist notices about this pottery that it is predominantly very crude in shape and manufacture right through from surface to natural soil. Rims appear to be flangeless, bases flat and the paste is usually rather porous looking. Beside these also WOR, black painted sherds and some adornos were reported and red painted ware which Gilchrist classified as belonging to the Erin or Palo Seco complex. Furthermore, she mentions a piece of ceramic consisting of a part of a small bowl with one leg and a design of incised circles of which she says never to have seen it in Trinidad before and that it presumably had three legs. The material of this excavation was kept at St. Mary's College, but most of it has disappeared now (Boomert, personal comm.).
From this time on the site has been examined three more times by P. O'Brien Harris; who was the first scholar who has drawn a simple map of the site.
During his first visit to Manzanilla 1 in 1968 he surveyed a small stream on the top at the north-eastern part of the site where he collected some painted and modelled ceramics belonging to the Palo Seco complex. Halfway down the north-western slope he made a small testpit that yielded a lot of shells, but only a few plain sherds.
In 1972 (17th of June) he checked the site for flood damage and on the 13th of October 1974 he checked it for hurricane damage and dug again on the same spot as in 1968. He reported one decorated sherd. The material Harris collected is nowadays kept at the Archaeological Research Centre at UWI.
These previous investigations give some information about the status of the Manzanilla 1 site, but also show some problems. First of all, there is a great variety in the characteristics of the ceramics that are found at Manzanilla 1. Some parts of the site clearly yielded Palo Seco complex ceramics as claimed by Harris. However, another testpit (made by Father Rodriquez) produced only ceramics with flangeless rims and since these flanged rims are one of the main marks of the Palo Seco complex they must represent another complex or a local variety. Harris too made a testpit that only revealed plain sherds. This indicates that the SAN 1 site at Manzanilla is most likely a multi-component site.

Research in 1997

The research program that was done by a team[5] of the Leiden University in 1997 confirmed this assumption (Dorst, 2000, Nieweg 2000). During this fieldwork the site was mapped, an augertest program was done and three small testpits were made. As a result of these investigations the following conclusions could be drawn:

- The total extensions of the site are some 200 x 250 m.
- Four 'empty' zones (no midden material) with almost equal extensions of some 60 x 30 m surrounded by thick midden deposits (*Chip-Chip*[6] shell*)* were found. These 'empty zones' (all located on the flat hilltop) were interpreted as vacant spaces (*plaza* areas and house locations) with surrounding dump areas on the edges of the hill and its slopes.

[5] D.C. Nieweg, J.J. Arts, A. Vredenbregt and M.C. Dorst
[6] *Donax sp.*

- Radiocarbon dates indicated a habitation span between AD 406 and AD 892, corresponding with the start of the Late Palo Seco and beginning of the Arauquinoid phase.
- Habitation during both periods was reflected in the ceramic repertoire; the lower stratigraphic levels yielded more elaborately decorated Palo Seco ceramics, while in the upper levels also more crude, plain and undecorated wares were found with different temper types such as crushed quartz and cauixi.
- Features were present, a large pit, two postholes and one burial were found.

Research in 2001 and 2003

In 2001 and 2003 two excavation campaigns were done in order to examine one of these habitation locations in more detail. This revealed that at the selected supposed habitation spot indeed a habitation location was present (Dorst, Nieweg & Baetsen, 2003). The following conclusions and interpretations were drawn:

- An anthrosol layer of some 20-30 cm in thickness characterized the original Amerindian habitation level.
- The vacant space area consists of a central *plaza* area surrounded by (supposedly) a ring of house locations. This *plaza* measured some 20 meters in width and at least 22 meters in length. In this *plaza* area five stone axes where found of which four are made from a metamorphic stone material, which is exotic to the Manzanilla 1 region.
- One house structure, named structure A, was identified. So far, the central post and three side posts of this structure are discovered. This structure consists of one central post and seven side posts and measured 8 meters in length and 6 meters in width. Based on associated burials which were C14 dated (AMS) by Trent University this Structure A can be dated in de Arauquinoid phase, between 650 and 1200. One burial was found inside the house while a cluster of (at least) 14 burials surrounded this structure. Burials (both primary and secondary) are located in very close distance of the house. They appear to have been buried mainly outside the house, but closely encircling it. The hole of the centre post of this structure was used as a secondary burial pit for two individuals after abandonment of the house.

  All ceramic material that was found in the midden deposit layers surrounding this habitation compound indicate that this house was inhabited at least during the Late Palo Seco period and the beginning of the Arauquinoid ceramic style period.
- At least two more house areas can be expected within this habitation location. One is marked by a cluster of burials opposite the recovered house structure A.. Also a midden deposit was found here. This concerned the remaining lower level of a once larger midden, which had been eroded. It yielded mostly ceramics of the late Palo Seco style (AD 350-650).
- A radiocarbon date, which was taken in 1997 from the lower levels of presumably the same midden deposit, suggests a date for this midden layer between AD 406 and 556.

  Below this midden a burial was found, which can be dated in this late Palo Seco period. Three other inhumations, which were buried in this midden, could also date from the Palo Seco period. An extended position of the body and the (recognizable) absence of post-burial rituals, which involve open burial pits and removal of bones characterize these inhumations.

1.5 Research objectives of the 2004 fieldwork

The main objective of this years fieldwork was a further and more detailed investigation of the habitation area that was studied during the excavation programs in 2001 and 2003 (Figure 2).
The main goal was to search for more house structures in this habitation area. Because more postholes were found between the edge of the plateau (T3) and the central suggested *plaza* area (T1), this whole area was planned to be excavated.
This way the circular lay-out of the village could be confirmed, since this is regarded to be the main pattern for Amerindian settlements in the Circum Caribbean region.
A more general purpose was to store up more data on site-specific characteristics on ceramics, stone and lithic material, faunal remains and burials.

An enlarged and more complete data set makes comparison with other larger scale settlement excavations such as the Golden Rock site on St. Eustatius, Anse a la Gourde on Guadeloupe and the Tutu site on St. Thomas more reliable.

Summarized the research questions and objectives regarding this fourth fieldwork campaign were the following:

- Are there more house structures present at this habitation area?
- If there are more house structures, what is the date of these structures?
- Is the apparent association of inhumations with the house structures, which was observed at Structure A also noticeable?
- Mapping the extensions of the site and excavation units by using a Total Station.

Other research objectives concern more specified questions such as:

- What other features are present in this habitation area?
- Can specific areas within this vacant space, midden layers and individual features be dated relatively?, by means of ceramic style and stratigraphic context.
- What are the specific characteristics of retrieved artefact categories such as ceramics, lithic, stone, shell, faunal remains and burials?

Chapter 2 Field Methodology 2003

2.1 Introduction
No trenches were made this year. Only one Small test Unit (SU) and a Large excavation Unit (LU) were excavated. One burial, located in SU 6, which was dug in 2003, was excavated and documented this year. The method of excavating these units is discussed in respectively paragraph 2.2 and 2.3.
Also the method of examining features is described in this chapter, paragraph 2.4.
Furthermore, the area surrounding the studied habitation compound, the extent of the units and position of all features were documented by Total Station.
A plan view of all excavated areas, including this years, is presented in figure 3.

2.2 Small test Units (SU)
Small tests Units were dug for the purpose of testing specific site area characteristics.
In 2004 one new Small Unit was dug, which was called SU 7.

- Small test Unit 7 measured 2 x 2 m and was excavated in order to study burial F119 below the Palo Seco midden deposit F123. This unit was excavated in arbitrary levels of 10 cm and per stratigraphic layer (midden and non-midden layers). This was done by using a trowel.
  The artefact categories ceramic, stone and lithic, shell and bone artefacts and large faunal remains were collected. Furthermore, a plan of level 1 and 2 and two of the profiles of this unit were drawn on a 1:20 scale.

- Small test Unit 6 measured 2 x 2 m (squares A-D) and was dug in 2003. One burial (F117), which was located in this unit, was excavated this year.

2.3 Large excavation Units (LU)
Large Units were made for the purpose of revealing the spatial patterning of a site, based on the location and orientation of features. This was done by using a backhoe and shovel-scraping with shovels. Scraping with the backhoe was stopped at the first level were features became clearly visible.

- One Large excavation Units (LU4) was excavated and the specific objective was to examine the area between Trench 1 (the *plaza* area) and Trench 3. Goal of this Large Unit was to search for more house structures and burials.
  Large Unit 4 measured 24 meters in length and 9 meters in width.
  All artefact categories in this trench were collected while working with the backhoe, during shovel scraping of the first feature level or retrieved from the dirt pile. All materials were collected and documented. The feature level was drawn in a view plan with all features on a 1:50 scale. Height measurements of the encountered (first) feature level were taken on a 5 m interval.

2.4 Features
The features that were found were studied by two different methods. This was because of the distinct characteristics of the features. A separation was made between features of burials and "normal" features of posts and pits. All burials were excavated by removing the dirt from the burial pit thereby uncovering the inhumation. This was done by using a trowel, a dentist toolkit and soft brushes. The excavation method and treatment of burials is discussed in more detail in chapter 3.4. Features of posts and pits were sectioned by using a pickaxe, shovel and trowel, up to the depth were the undisturbed subsoil was reached. All sections of the features were photographed and a section drawing was made on a 1:10 scale.

Depth, diameter, shape, colour, soil texture and contents of the fill of all features was documented and an initial interpretation was made. The fill of all features was water sieved in the sea on a 1cm mesh. The following material categories were collected: ceramic, stone and lithic and faunal remains such as bones and shell. Especially ceramic was important, which was used as an indicator of the relative date of the features. Collecting and submitting samples (charcoal, bone etc) for radiocarbon dating was outside the scope of this research campaign.

Chapter 3 Fieldwork Results

3.1 Introduction

In the following chapter the results of the 2004 fieldwork at the SAN 1 site are presented. These will be discussed in four paragraphs, which are the following:

- Features (*Ch.3.2*)
- Artefact categories (*Ch.3.3)*
- Burials (*Ch.3.4*)
- Faunal Remains (*Ch.3.5*)

Within these paragraphs the stratigraphy of the units, features, relative dates, artefacts and ecofacts and the spatial patterning will be discussed. Finally, all units will be summarized individually in a conclusive chapter where some interpretations on the results are presented. Each find category is summarized and interpreted at the end of each paragraph.

3.2 Features

A total number of 88 features (F124 - F212) have been found. After examining these features most were recognised as natural depressions, tree roots or animal borrows. Some 48 features were interpreted as to be of man-made origin and can be divided into five categories: postholes, stakes, pits, burials and midden deposits. All burials are discussed in more detail in paragraph 3.4. One burial, which was found in 2003, was also excavated this year.

Square	Feature	Interpretation	Material in fill	Period	Remarks
LU6	F117	burial			
LU4	F124	small posthole			
LU4	F125	small posthole	charcoal		
LU4	F126	burial			
LU4	F127	burial			
LU4	F129	posthole	ceramic, stone, charcoal		
LU4	F130	large posthole	ceramic, stone, bone, shell bead		
LU4	F131	burial			
LU4	F132	small posthole	charcoal		
LU4	F133	large posthole	ceramic		
LU4	F134	posthole	charcoal		
LU4	F137	midden deposit			= F121
LU4	F138	burial			
LU4	F141	posthole	ceramic, charcoal		
LU4	F143	small posthole	charcoal		
LU4	F144	stake			
LU4	F155	posthole			
LU4	F159	posthole			
LU4	F160	posthole			
LU4	F161	posthole			
LU4	F162	large posthole	ceramic		
LU4	F163	small posthole			
LU4	F165	stake			
LU4	F166	posthole	ceramic		
LU4	F167	stake			

LU4	F168	small posthole			
LU4	F172	small posthole	charcoal		
LU4	F173	small posthole			
LU4	F174	large posthole	ceramic		
LU4	F175	posthole	ceramic, stone		
LU4	F177	posthole	ceramic		
LU4	F178	burial			
LU7	F180	burial			
LU4	F183	small posthole	ceramic		
LU4	F184	posthole			
SU7	F187	burial			
LU4	F189	burial			
LU4	F190	stake			
LU4	F191	stake			
LU4	F192	stake			
LU4	F196	burial			
LU4	F197	burial in posthole	charcoal		
LU4	F198	burial			
LU4	F205	pit			
SU7	F206	skull			
LU4	F208	small posthole			
LU4	F212	burial			
SU7	F213	pit			

List of all features that were excavated during the 2004 campaign

The artefacts which were found in the fill of these features will be discussed in more detail in the paragraph 'artefact categories' Ch 3.3.

3.2.1 Postholes

Some 25 features were identified as postholes and were all found in Large Unit 4.

Posthole F124

Only the deepest part of this posthole was present. It had a maximum depth of only 10 cm, a width of 25 cm and had a rounded base. The fill of this posthole consisted of brown clayish sand and contained some *chip chip* shell fragments.

Posthole F125

This post had a maximum depth of 33 cm, a width of 21 cm and a flat base. The fill of this posthole consisted of yellowish brown, clayish sand containing midden material such as *chip chip* shell fragments and small chunks of charcoal.

Posthole F129

The post had a depth of 25 cm and a width of 23 cm and had a rounded base. The fill consisted of brown sandisch clay with a lot of *chip chip* shell fragments, chunks of charcoal and some ceramic and stone.

Posthole F130

The depth of the posthole was 50 cm, was some 20 cm in width and had a rounded base. This fill consisted of dark brown sandish clay containing a lot of *chip chip* shell. Also ceramics, stone, faunal remains and one small shell bead were found in the fill.

Posthole F132

This posthole had a depth of 15 cm, a width of 10 cm and had a rounded base. The fill consisted of brown sandish clay with *chip chip* shell fragments and some charcoal.

Posthole F133
The depth of this post was 30 cm, its width 17 cm and had a flat base. The fill consisted of dark brown sandish clay with *chip chip* shell fragments and ceramic.

Posthole F134
This posthole had a depth of 27 cm, and width of 15 cm and had a flat base. The fill of the posthole consisted of brownish gray, sandish clay with shell fragments, charcoal and ceramic. The fill of the postmold consisted of browish gray – yellowish brown mottled sandish clay.

Posthole F141
The posthole had a depth of 23 cm, the width was probably some 10 cm and had a rounded base. The fill consisted of brown sandish clay with a lot of shell fragments and some charcoal. Furthermore, some ceramics were found.

Posthole F143
The depth of this posthole was 14 cm, the width 20 cm and it had a flat base. Its fill consisted of brown sandish clay and contained fragmented *chip chip* shell and a lot of charcoal.

Posthole F155
The depth of this posthole was 9 cm and the width some 18 cm. It had a slightly rounded flat base and the fill consisted of yellowish brown sandish clay with some *chip chip* shell fragments.

Posthole F159
The depth of this posthole was 35 cm and its width 10 cm. It had a slightly rounded flat base and a fill consisting of brown sandish clay fragmented *chip chip* shell.

Posthole F160
The depth was only 10 cm, the width 28 cm and it had a rounded base. The fill consisted of brown clayish sand with fragmented *chip chip* shells. Based on the form it has been classified as a posthole, however it could be also be classified as a pit.

Posthole F161
This posthole had a depth of 9 cm and a width of 22 cm. The base was rounded and the fill consisted of dark brown clayish sand with *chip chip* shell fragments. This feature is almost similar to F161.

Posthole F162
This posthole had a depth of 55 cm and a possible width of some 15 cm. It had a flat base and the fill consisted of dark brown sandish clay with fragmented *chip chip* shell and some ceramic fragments.

Posthole F163
This posthole had a depth of 10 cm, a width of 15 cm and a flat base. The fill consisted of brown sandish clay with fragmented *chip chip* shell.

Posthole F166
This posthole had a depth of 36 cm and a width of 14 cm. It had a pointed base and the fill consisted of brown clayish sand with fragmented *chip chip* shell and ceramic fragments.

Posthole F168
This posthole had a depth of 30 cm and a width of some 15 cm. It had a flat base and the fill consisted of brown sandish clay with fragmented *chip chip* shell.

Posthole F172
This posthole had a depth of 40 cm and a width of 10 cm. It had a rounded base and the fill consisted of brown sandish clay with a lot of fragmented *chip chip* shell and some charcoal.

Posthole F173
This posthole had a depth of 30 cm, a width of 20 cm and a rounded base. The fill consisted of dark brown sandish clay with a lot of fragmented *chip chip* shell.

Posthole F174
This posthole had a depth of 44 cm, a width of some 12 cm and a rounded base. The fill consisted of brown sandish clay with fragmented *chip chip* shell and ceramic.

Posthole F175
This posthole had a depth of 37 cm, a width of some 15 cm and a rounded base. The fill consisted of dark brown sandish clay with fragmented *chip chip* shell, faunal remains, stone and ceramic.

Posthole F177
This posthole had a depth of 8 cm, a width of some 16 cm and a slightly rounded flat base. The fill consisted of brown sandish clay with fragmented *chip chip* shell and ceramic.

Posthole F183
This posthole had a depth of 14 cm, a width of 15 cm and a pointed base. The fill consisted of brown sandish clay with a lot of fragmented *chip chip* shell and some ceramic.

Posthole F184
This posthole had a depth of 12 cm, while the width could not be determined. It had a rounded base and the fill consisted of brown sandish clay with fragmented *chip chip* shell and some ceramic.

Posthole F197
This posthole had a depth of 32 cm, a width of 20 cm and a flat base. The fill consisted of dark brown sandish clay with a lot of fragmented *chip chip* shell and some charcoal and ceramic and stone. This posthole was secondary used as a burial pit for a small child, which will be discussed in more detail in chapter 3.4, burials.

3.2.2 Stakes
Six features have been identified as small stakes, which were all found in Large Unit 4.
These concern the features F144, F165, F167, F190, F191 and F192.
The stakes F165 and F167 could probably represent a small structure with posthole F166. These three features are located close to eachother in an area with no other features. It could represent a three-legged drying or cooking rack. The features F190, F191 and F192 form a same sort of structure, and possible also represents a drying or cooking rack.

3.2.3 Pits
Two features that were classified as pits were found. One were found in Large Unit 4 F205) and one in SU7 (F213).

Pit F205
This pit had a width of 35 cm and a depth of 11 cm. This fill consisted of dark brown sandish clay with a lot of *chip chip* shell fragments. The function of this pit is unknown.

Pit F213
This pit was located next to burial F187 and F206, possible it is related to these burials. Because of the complexity of these burials they were not excavated, just as this pit.

3.2.5 Midden deposits

One midden deposit (F137) was found during the 2004 fieldwork., which was located in LU4. It had a north-east-south-western orientation and was some 3,5 m in width and 7 m in length. In proved to be an extension of the midden deposit F121 in trench 3, which was found in 2003. This midden (F121) was identified as the lower level of a once larger midden deposit of which the top levels was eroded or levelled off by clearing activities.

Midden deposit F137 (=F121)
This midden deposit layer had a thickness of some 20 cm and consisted of dark grayish brown sandish clay with a lot of *chip chip* shell, charcoal, ceramic fragments, stone and lithics and faunal remains. Several postholes intersected this refuse deposit and also a few interments were present in this midden. This will be discussed in paragraph 3.2.6.

3.2.6 Summery, interpretation and spatial distribution of features

During the fieldwork a total number of 88 features were found of which 48 features were of anthropogenic origin. Among these features are postholes, stakes, pits, midden deposits and burials. An 'all features' map is presented in figure 3.

Post holes (25)
Large Unit 4 (F124, F125, F129, F130, F132, F133, F134, F141, F143, F143, F155, F159, F160, F161, F162, F163, F166, F168, F172, F173, F174, 175, F177, F183, F197)
All these posts have a depth ranging between 9 cm and 55 cm and have diameters between 10 cm and 28 cm. The fill of these features consists mainly of dark brown clayish sand (anthrosol) containing a variable quantity of fragmented shell, charcoal, ceramic, bone, stone and lithic material.
Based on the spatial distribution, depth and composition of the fill one house structure was identified within this swarm of postholes. Two posts were recognised as centre posts, F130, F162, while the postholes F124, F125, F129, F132, F133, F134, F159, F168, F172, F173, F174, F175, F177, F183 and F197 formed the side posts of this structure. This structure was named structure D.
However not the total length of this structure was excavated, its length can be reconstructed to have been some 12 –12,5 m. The width of this structure is some 9 m. Within this structure are some smaller, shallower posts present, which are F208, F161, F160, F163, F163 and F184. It is unknown what their function is within this structure, since there is no clear pattern in the distribution of these posts. Other posts (F141, F155) may have belonged to another structure which will discussed below in the overall conclusion on spatial distribution of features.

Stakes (6)
Large Unit 4 (F144, F165, F167, F190, F191, F192)
Within this set of stakes a form of structure is noticeable. This is a tree-legged form with an distance between the features of some 50-60 cm. Probably they represent drying or cooking racks within structure D. Two of these structures were identified. The stakes F165 and F167 probably form one of these structures with feature F166, which was identified as a posthole.
Features F190, F191 and F192 represent the other drying-cooking rack structure.

Pits (2)
Large Unit 4 (F205)
Small Unit 7 (F213)
It is unknown what the function of both pits was. Only feature/pit F205 was sectioned, however no specific contains was found in the fill, which could specify its purpose.

Midden deposits (1)
Large Unit 4 (F137)
This midden proved to be a continuation of the Palo Seco midden layer F121, which was found in 2003.

Burials (14)
Large Unit 4 (F126, F127, F131, F138, F178, F189, F196, F197, F198, F212)
Small Unit 6 (F117)
Small Unit 7 (F180, F187, F206)
More details, interpretations and conclusions on burials will be presented in paragraph 3.4.

Regarding the spatial distribution the following conclusions can be drawn:
The presence of another house structure, which was suggested in 2003, was positively confirmed by the find of a number of postholes. This structure was named Structure D, and however not the whole house structure was present within the excavated unit, the larger part was, which made it possible to reconstruct the total lay-out. The reconstruction of this structure is mainly based on the spatial orientation of the posts and their depth. In figures 3 and 4 is shown that an oval orientation can be noticed in the cluster of postholes. The vertical bars in this figure represent the depth of each post. This shows that the two largest postholes are located on the centre axis of this oval form. These postholes F130 and F162, which are respectively 50cm and 55cm in depth, can be interpreted as the two centre posts of this structure. All the smaller posts that encircle these centre posts range in depth between 8 cm and 44 cm with an average of 27,3 cm. These postholes can be interpreted as side posts, which are F124, F125, F129, F132, F133, F134, F159, F168, F172, F173, F174, F175, F177, F183 and F197. The total length of this structure would have some 12 – 12,5 m and some 9 m in width.
Within this house plan two small tree-legged structures were identified. These are represented by stakes (and one small post) with an distance between the features of some 50-60 cm. Possibly they represent drying or cooking racks within Structure D.
Also a few other some smaller, shallower posts are present within this house (F208, F161, F160, F163, F163, F184). It is unknown what their function is, since no interpretable pattern can be noticed. Possibly they represent an inner partition of the house.
It is unknown what the date of this structure is, however since some of the side-posts protrude the late Palo Seco midden F137 it must be assumed that it dates from the post-Saladoid /Arauquinoid period, AD 650 – 1400.

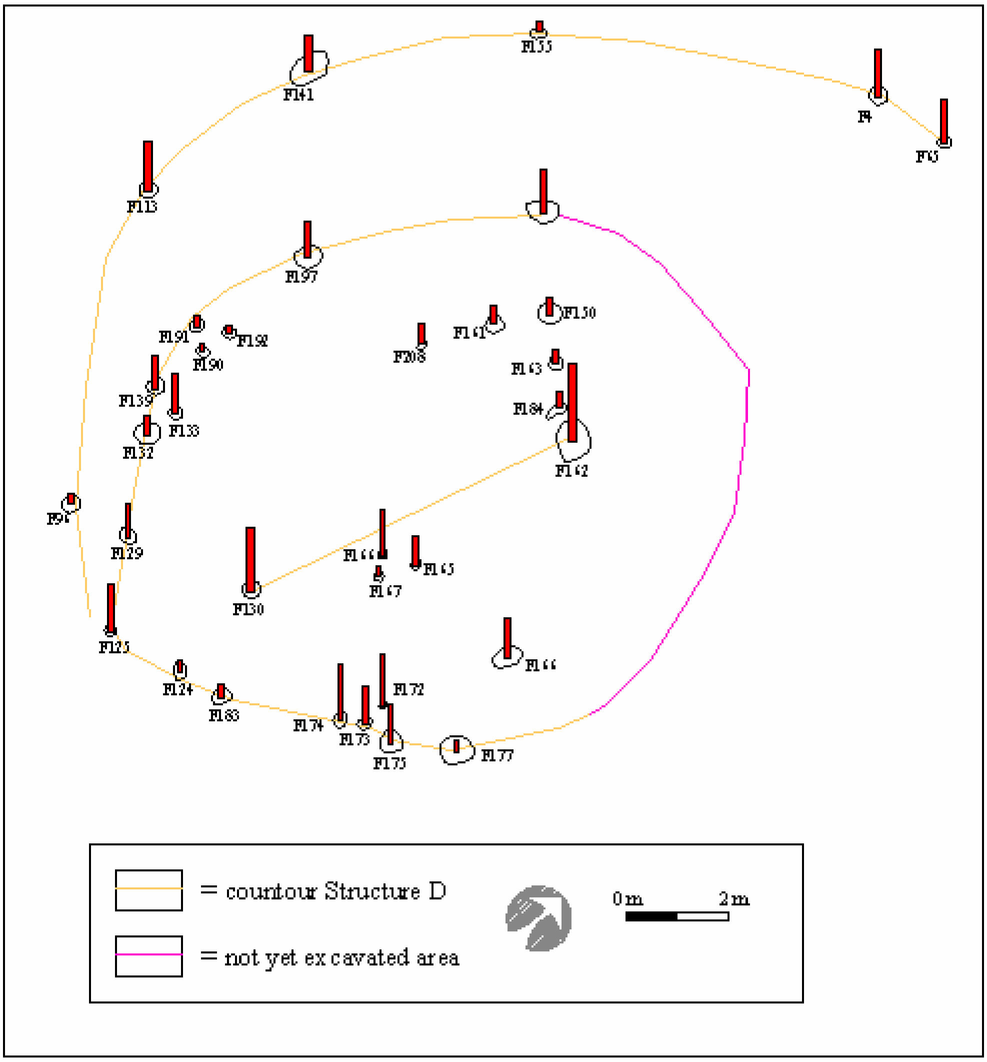


Fig. 4. The contour of Structure D and the arc with the depth of the posts represented as red bars

Some burials are most likely to be associated with this structure. Based on the classification, which is presented in paragraph 3.6, these are F17, F117, F118, F126, F138, F178, F180, F187, F189, F197 and F206. Most of these burials are located directly outside the house structure and encircle it. One burial is located within the house (F189) and one inhumation was present in one of the postholes of this structure (F197).

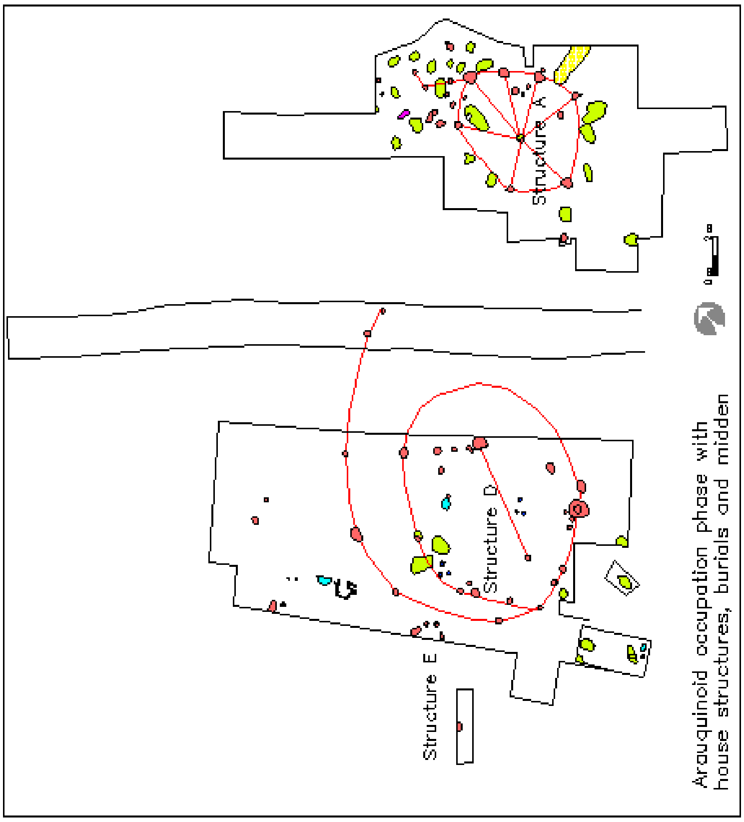
The characteristics of Structure D are summarised in the table below.

Structure	D
Shape	oval ca. 12 x 9 m
Area (m²)	108 m²
Occupation period	Arauquinoid (AD 650-1400) ?
Related burials	F17, F117, F118, F126, F138, F178, F180, F187, F189, F197, F206
Orientation	northeast-southwest
Central posts	F130, F162
Side posts	F124, F125, F129, F132, F133, F134, F159, F168, F172, F173, F174, F175, F177, F183, F197
Attached appendages	arc F4, F65, F96, F113, F141, F155
Related middens	unknown
Related structures/features	drying/cooking racks? F165, F166, F167 and F190, F191, f192

It is likely that the new found Structure D is contemporary with Structure A. The both have a north-south orientation, are both oval-shaped and are located within a acceptable distance next to eachother. However, this means that the suggestion that a communal space (*plaza*) was present here (Dorst, *et all*, 2003, 2004) must be rejected. The presence and northeast-southwestern orientation of the late Palo Seco midden F121/F137 as well as the spatial presence of the two Arauquinoid houses indicate a different orientation of this habitation spot.
During the Late Palo Seco both the *plaza* and the houses were likely situated on the east side of the up to now excavated area. The Late Palo Seco midden deposit F121/F137, F123 and lower levels of the midden which were found in SU 1 (1997) probably represent the most outer ring of this habitation phase. At least one burial can be ascribed to the Palo Seco period. This is burial F119, which is located under this midden. Some other inhumations here can possibly also be dated in the Palo Seco period. This is based on several characteristics of these interments such as their stretched orientation, poor conservation and the appeared absence of (recognisable) post-mortal rituals after the burial. These are burials F97, F98, F99, F131, F127 and probably also interments F196, F198 and F212. Most likely these burials are not related or orientated around a house structure, but form a small cluster of burials, which can be interpreted as a specific designated, communal burial ground. This is also suggested for the Saladoid occupation phase at the Tutu site at St. Thomas (Righter, 2002:333).
A plan of this suggested late Palo Seco occupation phase is presented in figure 5.

During the Arauquinoid occupation phase the houses were probably arranged around the same *plaza*, which should have been larger during this phase. The number of houses that were arranged around the *plaza* would have been larger compared with the Palo Seco phase, which resulted in an expansion of this ring of houses. An increase of the population in the Arauquinoid period, which was suggested by Boomert (2000), can be seen as the motor behind this expanding ring of houses. The two house structures A and D most likely represent houses within this enlarged occupation ring. The related middens of this occupation phase are likely to be presented by the larger part of the dumps that are present on the slopes of the hill. In contrast with the communal burial ground orientation of interments during the Palo Seco phase, burials during the Arauquinoid phase are family based and orientated and related to house structures. This was also noted at the Tutu site (Righter, 2002:335-337, figures 12.35, 12.36 en 12.37).
Surrounding this Structure D a number of postholes was present, which formed an arc. Possible this arc of postholes was part of the total lay-out of this structure. These are the postholes F96 (T3)[7], F113 (T3), F141 (LU4), F155 (LU4), F4 (T1), F65 (T1).

[7] Trench 3, which was dug in 2003 (Dorst, Nieweg & Altena, 2004)



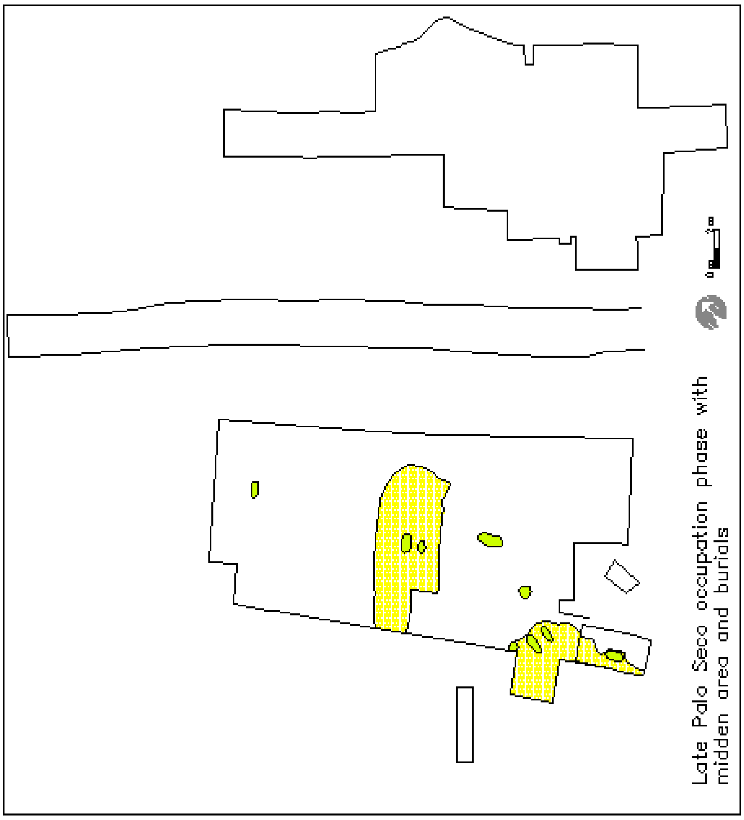


Fig 5. Habitation phases

It is unknown what the function of this arc of posts was, but these where also recorded at several house structures at the Golden Rock site at St. Eustatius (Versteeg & Schinkel, 1991, chapter 4).
A plan of the suggested Arauquinoid occupation phase in presented in figure 5.

3.3 Artefact categories

In the following paragraph all recovered artefact- and ecofact categories will be described. The following groups were distinguished: ceramics, stone and lithics and shell artefacts.
All artefacts is will be described per "cultural unit" or excavation unit, which have been described in the previous paragraphs.
These are the following:

- accidental finds, level 1 form LU4 (ch. 3.3.1)
- the midden deposit F137 (ch. 3.3.2)
- the postholes of Structure D (ch. 3.3.3)
- finds from SU7 (3.3.4)

Of all ceramics the following characteristics are discussed:

1. **sherd type**
   The types that were distinguished are rims, walls, bases, handles (type), appendages and griddle parts. Also all combinations between these types are noted as a specific type, such as rim-wall-base, rim-wall, wall-base, wall-handle ect.

2. **number of sherds**

3. **forms and numbers of decorations**
   A various number of different decoration modes were distinguished which include: red slip, white, black and red paint (inclusive painted motives), pitch covering, incisions (including the ZIC motive) and modelling such as slid eyes, nubbins, geometric patterns and anthropomorphic *adorno's*.
   All combinations between these where noted as individual decoration modes.

4. **Ware type**
   This classification of ware types has been set up based on the ceramics that have been recovered during the fieldwork in 1997, 2001 and 2003. The following ware types where distinguished:
   Ware type 1
   This type is characterised by a hard, compact reddish-brown fabric and smoothed inner and outer vessel walls. The original coils cannot be seen or felt by hand. Outer and inner walls are burnished or (highly) polished. The majority of this type of sherds is decorated, nearly all specimens show completely red-slipped surfaces while in addition incised and modelled designs occur. ZIC motifs are found predominantly on this ware type. The non-plastic inclusions of this ware type consist exclusively of siltstone and fine quartz sand. Only a few sherds show a fabric with some small chert chips. Flanged rims are frequently associated with this ware type. This ware type is especially associated with the late Palo Seco complex, and may represent the "fine ware" within the ceramic repertoire.

Ware type 2
This type shows a hard and soft orange fabric and smooth inner and outer walls, which have a gristly appearance. The fabric is often porous, but more compact sherds also occur. This is the most frequently decorated ware type which shows all known decorative motifs, including ZIC, WOR and polychrome painting in red and white. The latter designs are only found on this ware type. Furthermore, all zoomorphic and anthropomorphic, with one exception, are associated with this type. In addition, it is characterised by the widest variety of non-plastic inclusions, including siltstone, siltstone with quartz sand, siltstone with shell, siltstone with organic materials, and siltstone with unidentified black particles. Flanged rims are present, but appear to be rare. This ware type is especially associated with the late Palo Seco complex.

Ware type 3
This type shows a hard, dark brownish-gray to orange-pink fabric. Wall surfaces are uneven and not very well finished; they have a powdery feeling. Coils are (clearly) visible and the fabric is generally porous in nature. This ware type is only associated with siltstone and quartz sand inclusions in the fabric. Its most striking feature is the low percentage of decorated sherds. Designs include red-slipped surfaces, simple modelling, and crude, irregular wide-lined incisions. Combinations of more than one type of decoration are rare. Flanged rims are absent. This ware type is especially associated with the Arauquinoid series and forms the largest part of the ceramic repertoire during this period.

Ware type 4
This shows a hard, grayish orange-red fabric containing a large quantity of quartz sand, often with mica particles. Both inner and outer wall surfaces are flat but have a granular feeling. Decorated sherds are not associated with this ware type, but this may be due to its generally rare occurrence. This ware type is associated with the late Palo Seco complex.

Ware type 5
The majority of the pottery sherds at the Manzanilla 1 site belong to this ware type. It shows a hard fabric with a wide range of colours, ranging from reddish-brown to light, brown-orange. Both the inner and outer wall surfaces are smoothed and generally well finished, but more uneven than those of type 1 sherds while irregularities are present. Occasionally, the wall surfaces are burnished or polished. The fabric can be described as semi-porous. All forms of designs, except WOR, are present. Decorated sherds are rare if compared to ware types 1 and 2. All non-plastics distinguished within the assemblage are associated with this ware type. Flanged rims are common. This ware type is associated with both the late Palo Seco complex and the succeeding complex from the Arauquinoid series at the SAN I site. Within the late Palo Seco complex it appears to represent the "plain ware" component of the ceramic repertoire, while it appears to be a minority part within the Arauquinoid series, next to ware type 3.

Ware type 6
This ware type is represented only by two sherds showing a hard, compact reddish brown to black fabric. Both sherds are thin, both inner and outer walls are smooth and highly polished so as to show a metallic lustre. This fabric contains siltstone inclusions with fine sand and glimmer. One sherd is covered with red slip. This ware type is associated with the late Palo Seco complex.

6. Vessel form or type

Some recovered sherds were large enough to be able to reconstruct the particular vessel form or type. For the identification of these forms and types the classification of Trinidad and Tobago vessel forms by A. Boomert was used (Boomert, 2000:132-216).

A number of vessel forms and diagnostic sherds have been drawn to scale.

3.3.1 Accidental finds, level 1 LU 4

Here all the finds that have been found during shovel scraping in Large Unit 4 will be discussed. This includes the finds that have been found during working with the backhoe, shovel scraping with shovels and all the finds from the dirt pile.

Findnr.	Context	Artefact type	#	Decorations	#	Vesselshape	Ware type	Remarks
3	LU4, level 1	wall	1				5	
		wall	4				3	griddle?
		rim	1				3	griddle?
4	LU4, level 1	base	1				5	pedestal foot
		wall	8				5	
		handle	1	black slib	1		5	
		rim	1	red slib+incision	1		2	

Ceramics found during scraping of level 1 in Large Unit 4

Ceramics that were found during shovels scraping include sherds that belong to the late Palo Seco period as well as sherds that are can be dated exclusively in the Arauquinoid period (ware type 3). Among these are some sherds that probably represent griddle parts.
Among the sherds that can were identified as belonging to the Palo Seco period is a rim sherd with a flanged lip. The inside of this sherd and the upper part of the rim are covered with red slib and the lower outside of this vessel is decorated with black slib (Fig. 6).

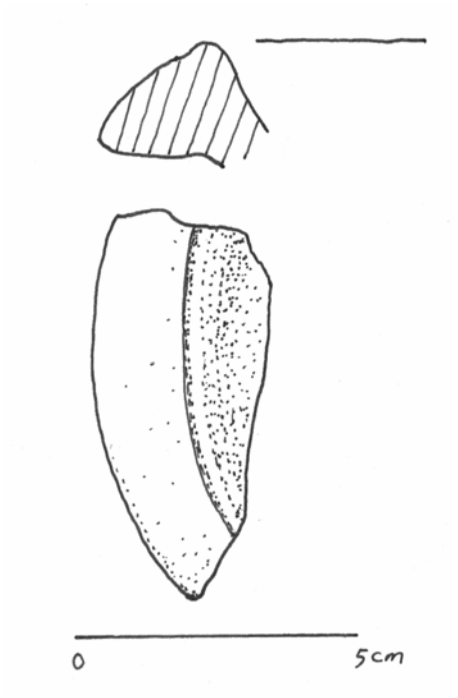


Fig. 6 Flanged Palo Seco lip

Findnr.	Context	Stone type	#	Tool/artefact type	Remarks
3&4	LU4, level 1	metamorphic	1	axe	middle part of axe, greenish-blue
		sandstone	1	hammerstone?	gray sandstone
		sandstone	1	rubbing/polishing stone	black waterworn pebble, one polished side

Stone artefacts found during scraping of level 1 in Large Unit 4

Among the stone finds that have been recovered during shovel scraping are a part of an axe made from a metamorphic stone, a possible hammerstone and a black waterworn pebble which was used as a polishing stone.

3.3.2 Midden deposit F137

Here all the finds from midden deposit F137 are discussed.

Findnr.	Context	Artefact type	#	Decorations	#	Vesselshape	Ware type
1	F137	wall	3				5
		rim	1	incision	1		2
5	F137	wall	93	incision	2		5
		rim	7			T&T erin form 10 (1x) T&T cedr. form 1 (1x)	5
		rim-wall	1			T&T cedr. form 1 (1x)	5
		rim-wall-handle	1				5
		handle	1				5
		rim	2	red slib+incision, incision	2	T&T cedr. form 1 (1x)	1
		base	1				
23	F137	wall	49				5
		rim	7	incision	1		5
		wall	1				1
		rim	2	red slib+incision, incision	2		1
		wall	1	appendage	1		2
29	F137	wall	21	incision	1		5
32	F137	rim-wall	1	red slib+nubbin+ incision	1	T&T cedr. form 1 (1x)	1
		wall-handle	1				5
		wall	1				5
		rim	1				5
39	F137	rim-wall	1			T&T cedr. form 1 (1x)	3
		wall	18				5
46	F137	indet	1				2
		rim	3	nubbin+incision, incision	2		5
		rim	2	incision	2		1
		rim-handle	1	incision	1		1
		wall	12				5
		base	3				5
		rim	6	incision	1		5
		rim	1				3
		wall+appendage	1	adorno+red slib	1		2

Ceramics found in the midden deposit F137

Most of the ceramics that have been found in the midden deposit F137 represents sherds that can be classified as belonging to the Palo Seco period. However, some sherds were found which represent Arauquinoid complex sherds.

Among the sherds that were found in this midden are several from which a more or less complete vessel form could be determined. Beside these, all adornos and less common or special ceramics are also discussed below.

A small adorno, ware type 2, was found in this midden (findnr. 46). It is a wall sherd with an appendage in the form of a small animal face, which probably represents a frog or a turtle. In the incisions some traces of red slib were noticed. This adorno most likely belonged to the late Palo Seco period. A drawing is presented in figure 7.

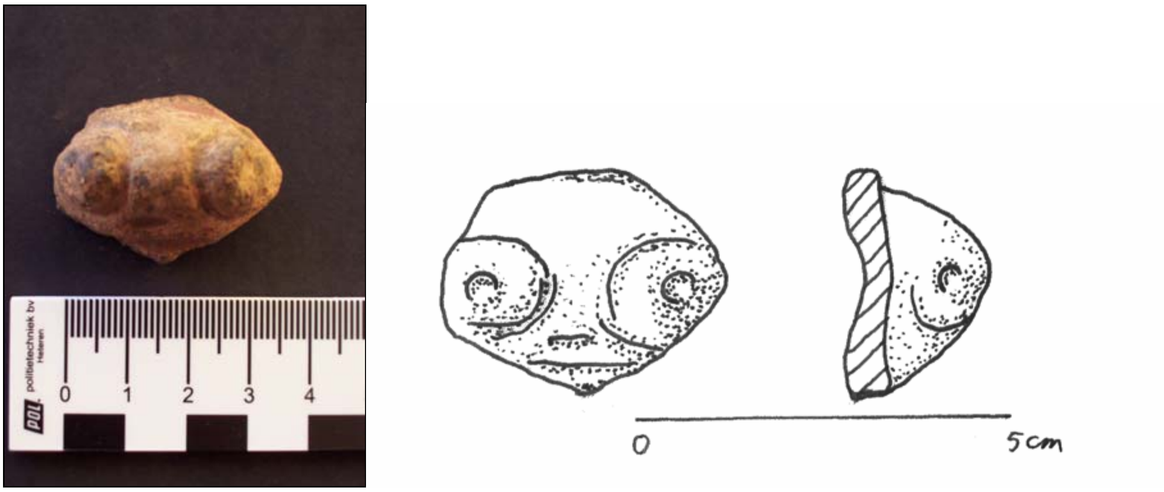


Fig. 7 Late Palo Seco adorno

An open bowl/dish of ware type 1 was found which has an incision on the inner side and a slid eye nubbin on the rims edge (findnr. 32). This bow is a T&T Cedrosan form 1 type vessel and can be dated in the late Palo Seco period (Boomert, 2000). The bowl was classified as a ware type 1, and represents the Cedrosan fine ware within the Palo Seco ceramic repertoire. A photo and drawing are presented in figure 8.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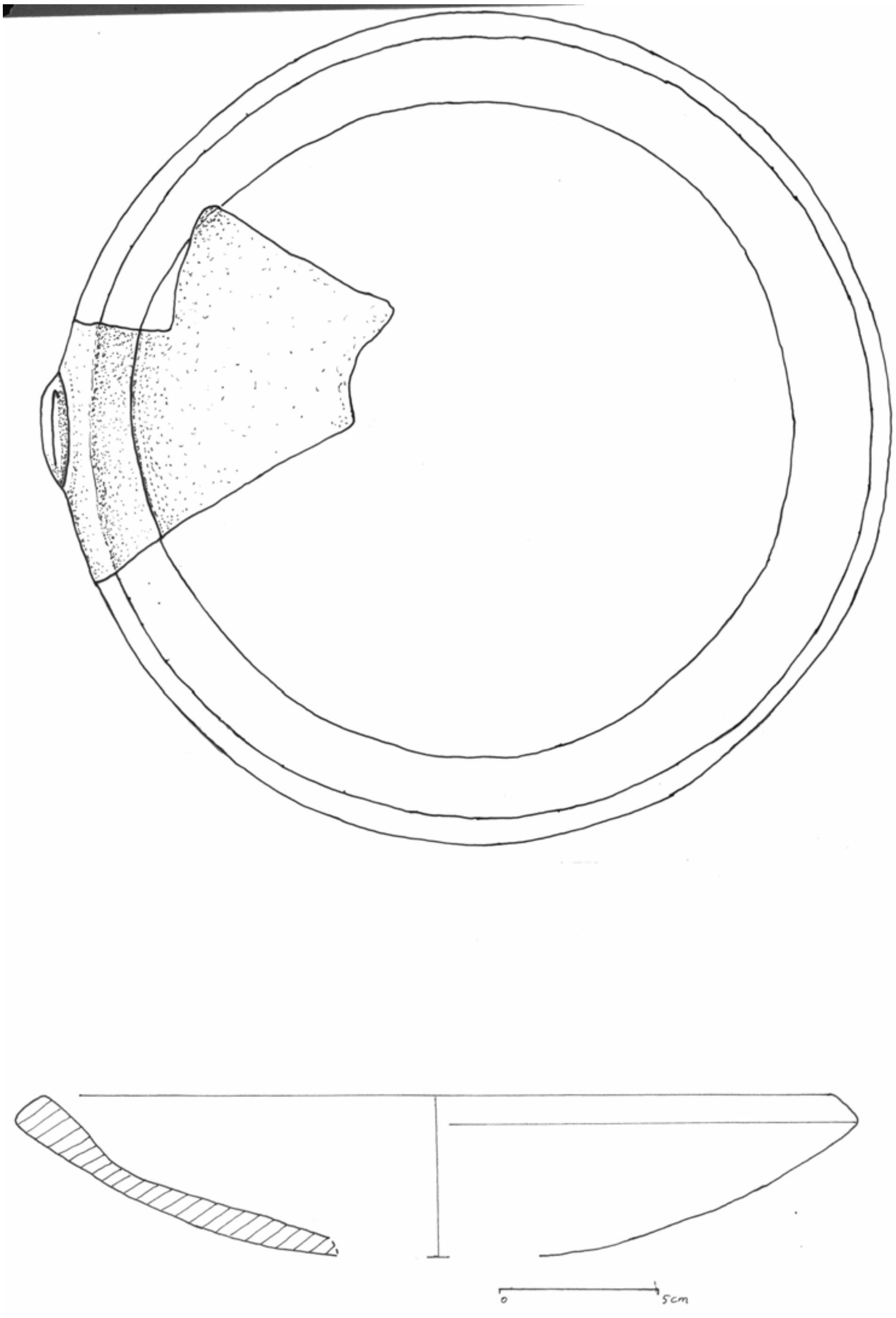

Fig. 8 Late Palo Seco open bowl, measuring rod is 5 cm

An open bowl of the ware type 3 was also found in this midden (findnr. 39). This bow can be classified as a T&T Cedrosan form 1 type (Boomert, 2000), however it most likely represents an Arauquinoid vessel because it was classified as a ware type 3. It has a diameter of 19,5 cm, the wall is uneven and no red slib or decorations are present. A drawing is presented in figure 9.

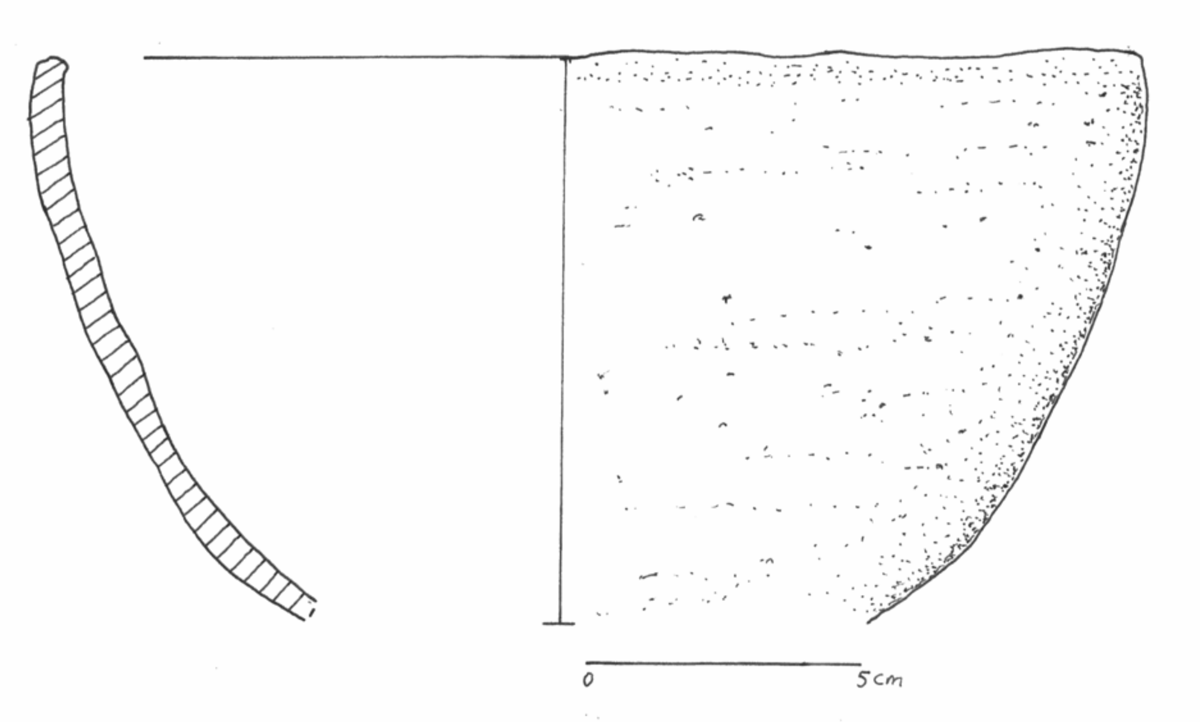

Fig. 9 Arauquinoid open bowl

Another open bowl was found (findnr. 5). It represents an open bowl with no red slib or decorations and at least one handle is attached. It can be classified as belonging to the plain ware within the Palo Seco repertoire and represents a T&T Cedrosan form 1 vessel (Boomert, 2000). A drawing is presented in figure 10.

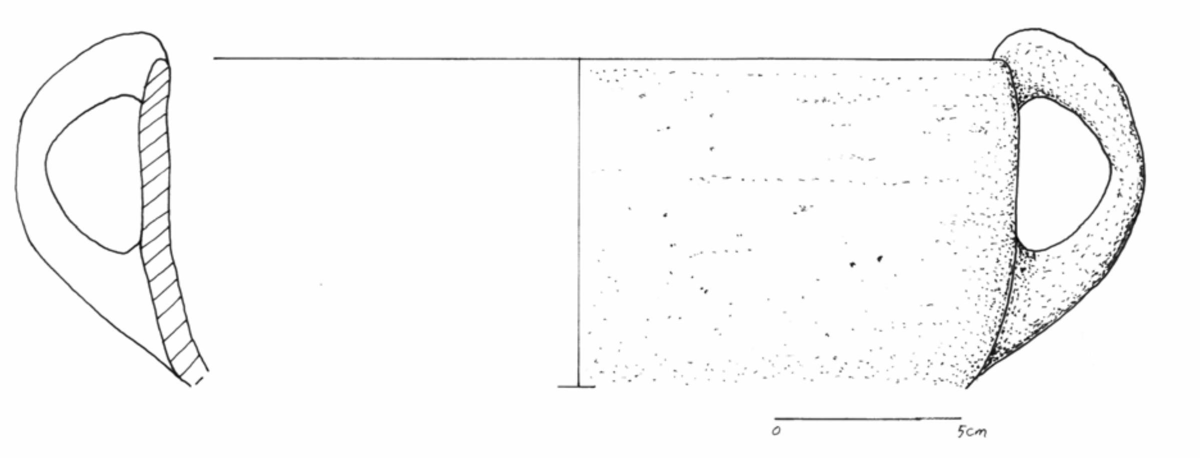

Fig. 10 Late Palo Seco open bowl

A large ceramic leg or foot of ware type 5 was also found, however it is unknown what type of vessel it has supported (findnr. 5). Probably it represents a griddle leg or part of an incense burner. A drawing is presented in figure 11.

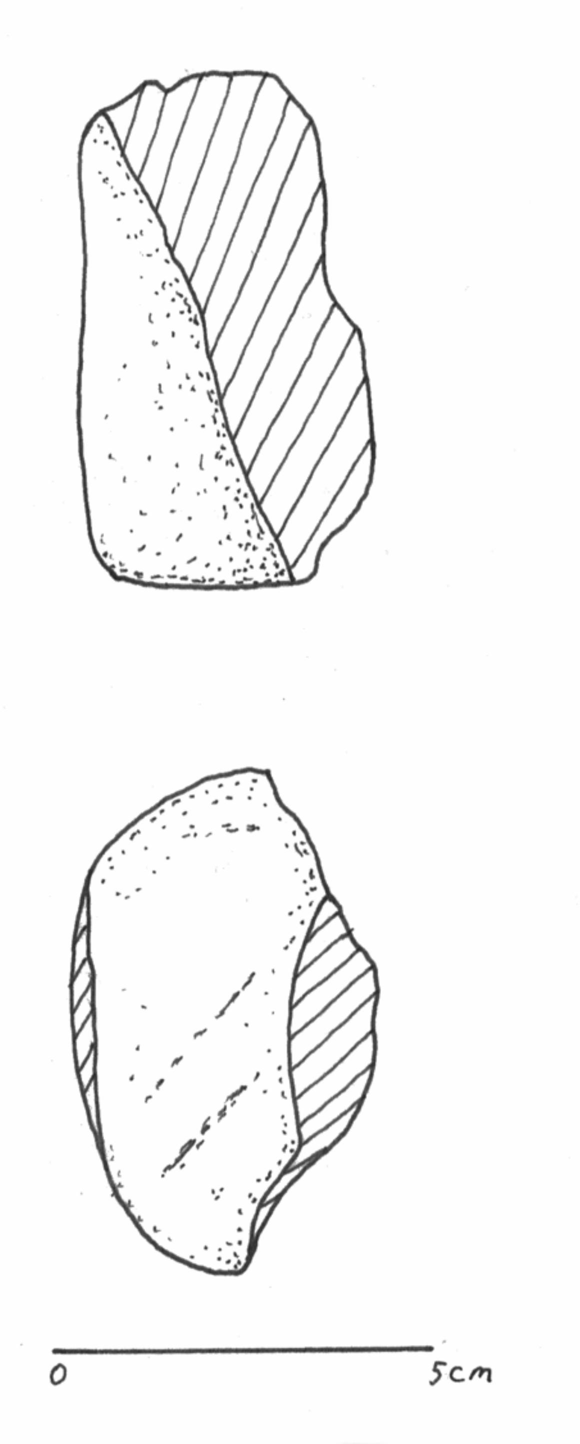

Fig. 11 Ceramic leg base

A flanged lip rim sherd of ware type 5 was found which was decorated with a modelled face of an animal (findnr. 46). Most likely it represents a frog. The diameter of this (most likely) open bowl was 24cm and a drawing is presented in figure 12.

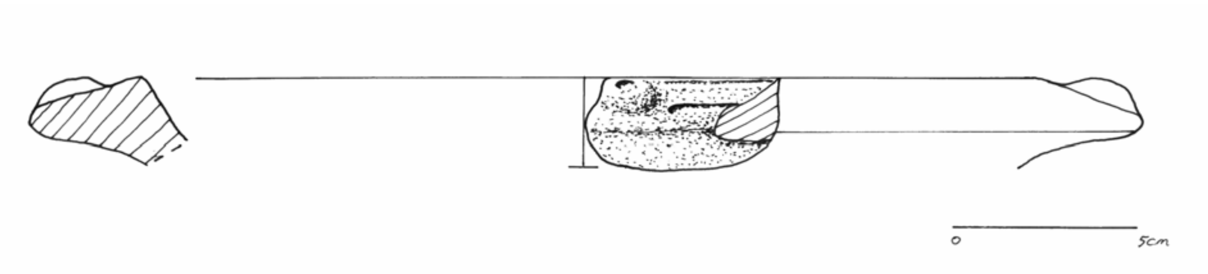

Fig. 12 Late Palo Seco open bowl with flanged lip and zoomorphic modelling, scale rod is 5 cm

Another rim sherd, ware type 1, was found which was decorated with a modelled upright handle (findnr. 46). A drawing is presented in figure 13.

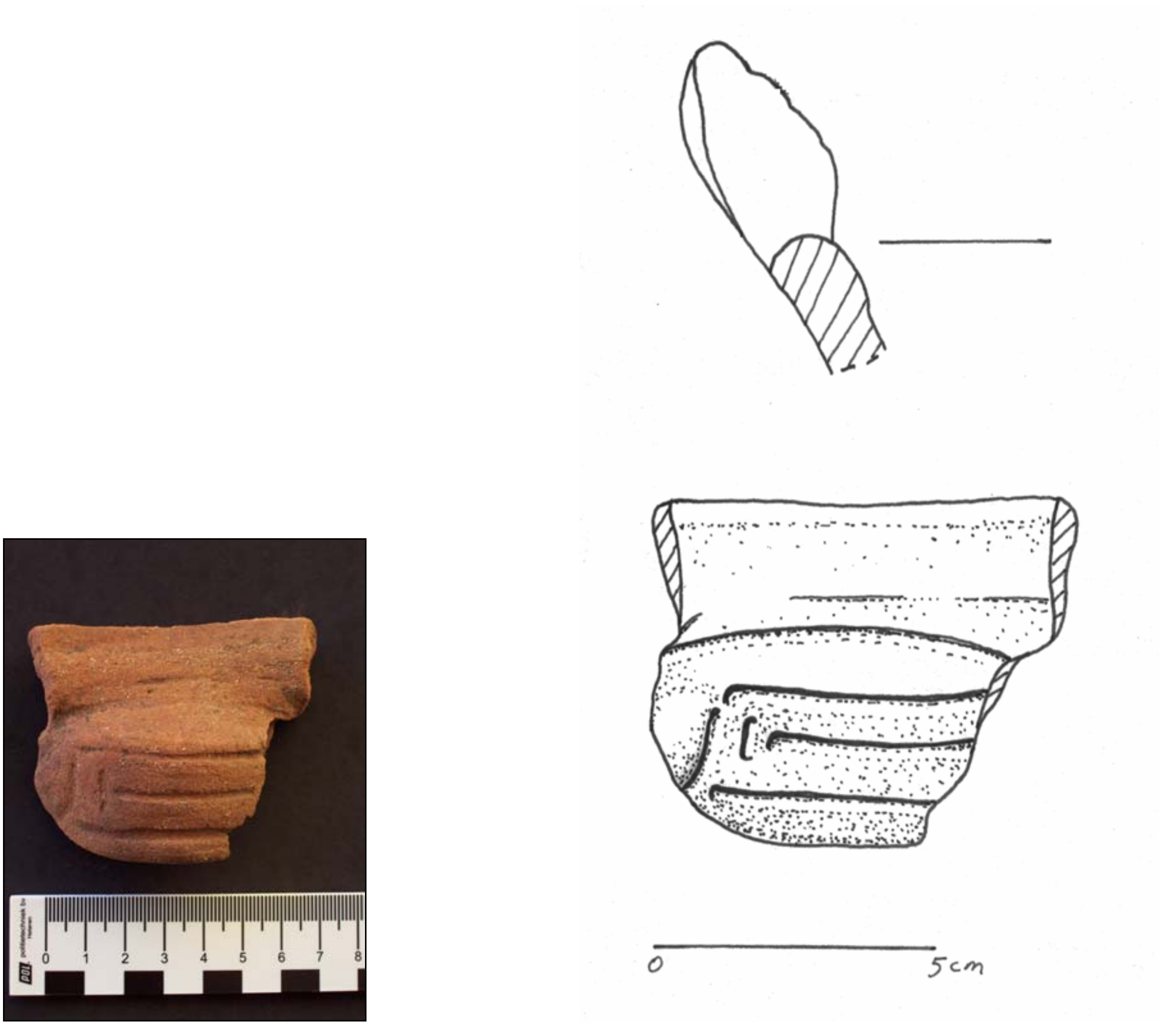

Fig. 13 Late Palo Seco vessel handle

A rim sherd of ware type 3 was found which could represent a pot stand (findnr. 46). However this is not certain, it could also be a neck part of large vessel. The bottom part was straight and showed ware traces, so a third option is that is was secondary used as a pot stand. It can represent an Arauquinoid ceramic object, based on the ware type. A drawing is presented in figure 14.

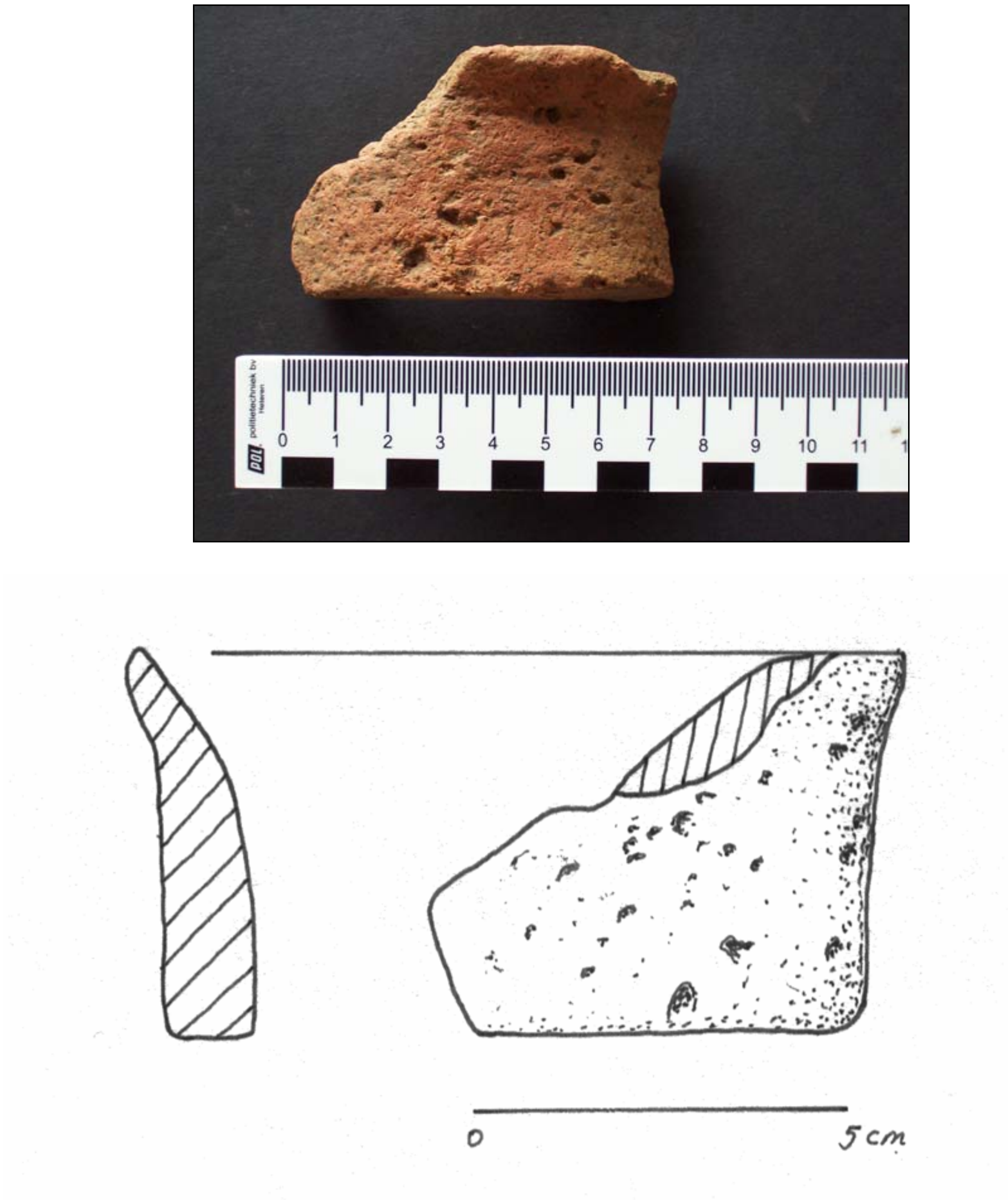

Fig. 14 Ceramic vessel neck or pot stand

A wall sherd, ware type 5, was found which has a small ear (findnr. 23). This sherd is shown in figure 15.

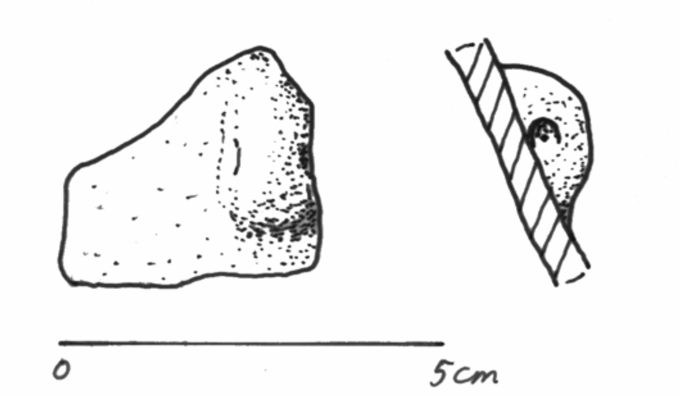

Fig. 15 Wall sherd with small ear

An open bowl of ware type 1 with a flanged lip was found (findnr. 23). This open bowl had a diameter of 19 cm and has red slib traces on the inner and outer wall. The flanged lip is decorated with a single straight line incision and the inner part of the vessel has an incised motif, which could not be determined because of the fragmentation. A drawing is presented in figure 16.

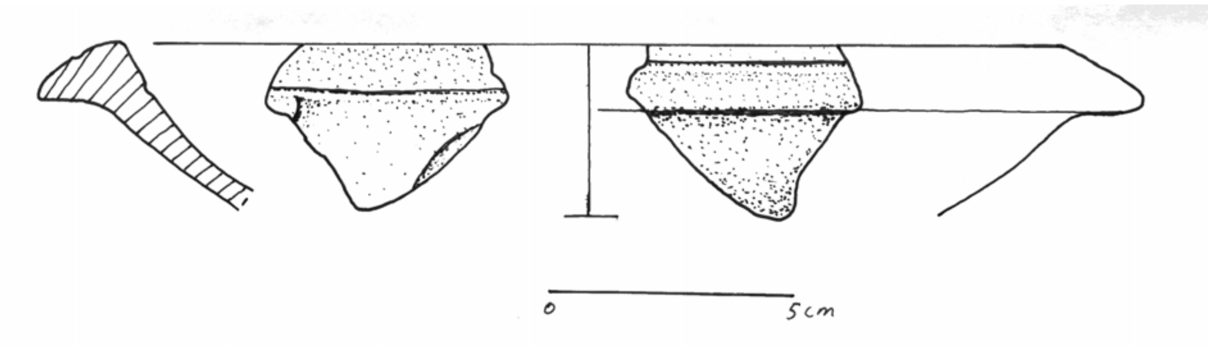

Fig. 16 Late Palo Seco open bowl with flanged lip and incised decoration

A fragment of a jar (Olla) was found (findnr. 5). It is a ware type 5 and it has a diameter of 28 cm. A drawing of this vessel is presented in figure 17.

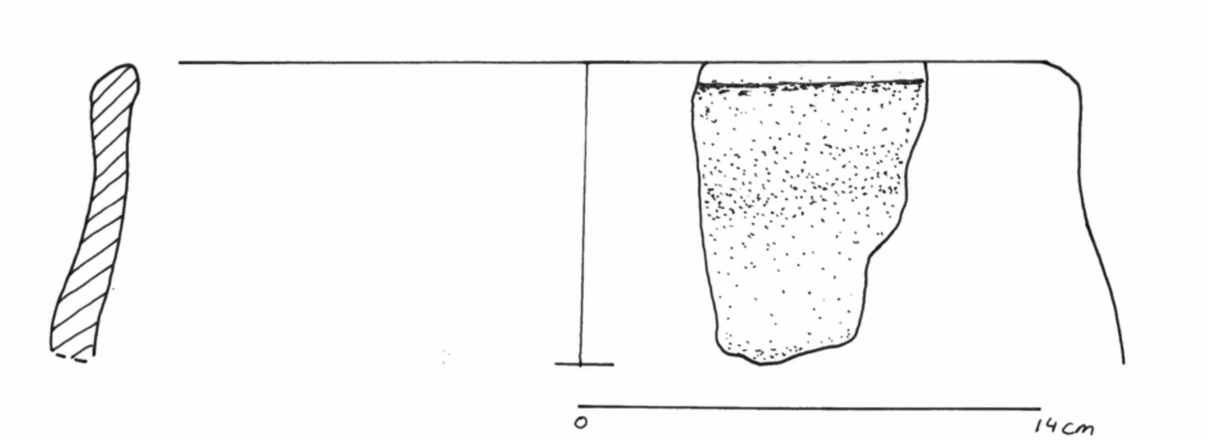

Fig. 17 Fragment of a jar
From this midden deposit several stone and lithic artefacts were collected, which are described below.

Findnr.	Context	Stone type	#	Tool/artefact type	Remarks
1	F137	sandstone	1	unmodified piece	gray
		metamorphic sandstone	1	hammerstone	waterworn pebble with one battered edge
		limestone?	1	hammerstone/anvil	two pits, one on each face
5	F137	chert	1	unmodified piece	light brown pebble
		chert	1	flake, cutting tool?	flake
		sandstone	1	unmodified piece	
		metamorphic sandstone	1	rubbing/polishing stone	oblong waterworn pebble, one smoothed side
23	F137	chert	1	flaked pebble	
		limestone?	1	unmodified piece	
		metamorphic sandstone	1	unmodified piece	part of a waterworn pebble
32	F137	flint/chert	2	flakes	black/gray, one with used edge?
39	F137	quartz	1	unmodified piece	fragment of transparent quartz crystal
46	F137	diorite	1	bead	large, round bead
		chert	3	unmodified pieces	3 black waterworn pebbles
		chert	1	hammerstone?	red, one battered edge
		sandstone	1	hammerstone	black, waterworn pebble, two battered sides

Stone and lithics found in the midden deposit F137

Within this stone and lithic repertoire the majority is represented by chert flakes and debitage. Two flakes appear to be "real" flint, this in contrast with the chert material, which is in fact a very fine-grained mudstone. This flint-like material (findnr. 32) is most likely foreigh to the Manzanilla Region.. Furthermore, one unmodified chip of transparent quartz crystal was found, which is also foreign to the Manzanilla 1 region. It could be acquired from the Toco region in the Northern Range in Trinidad. Hammerstones/anvils made from waterworn sandstone, metamorphic sandstone and possible chert are also present. Finally, one large, round bead of diorite was found in this midden (findnr. 46). This bead has a diameter of circa 2 cm and is circa 1 cm in thickness. This bead is shown in figure 18.

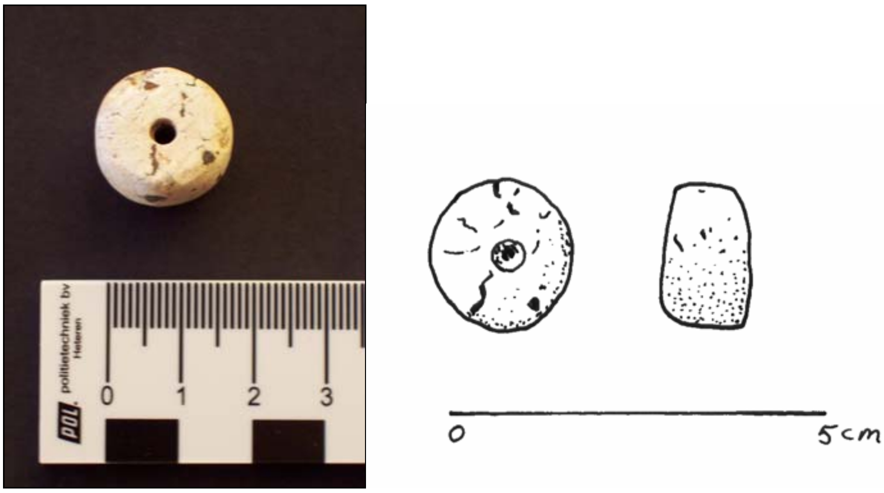

Fig. 18 Large diorite bead

One example of a hammerstone made from a waterworn sandstone pebble is presented in figure 19.

The top part and one edge are heavily battered and this hammerstone is possible used for flaking chert or flint.

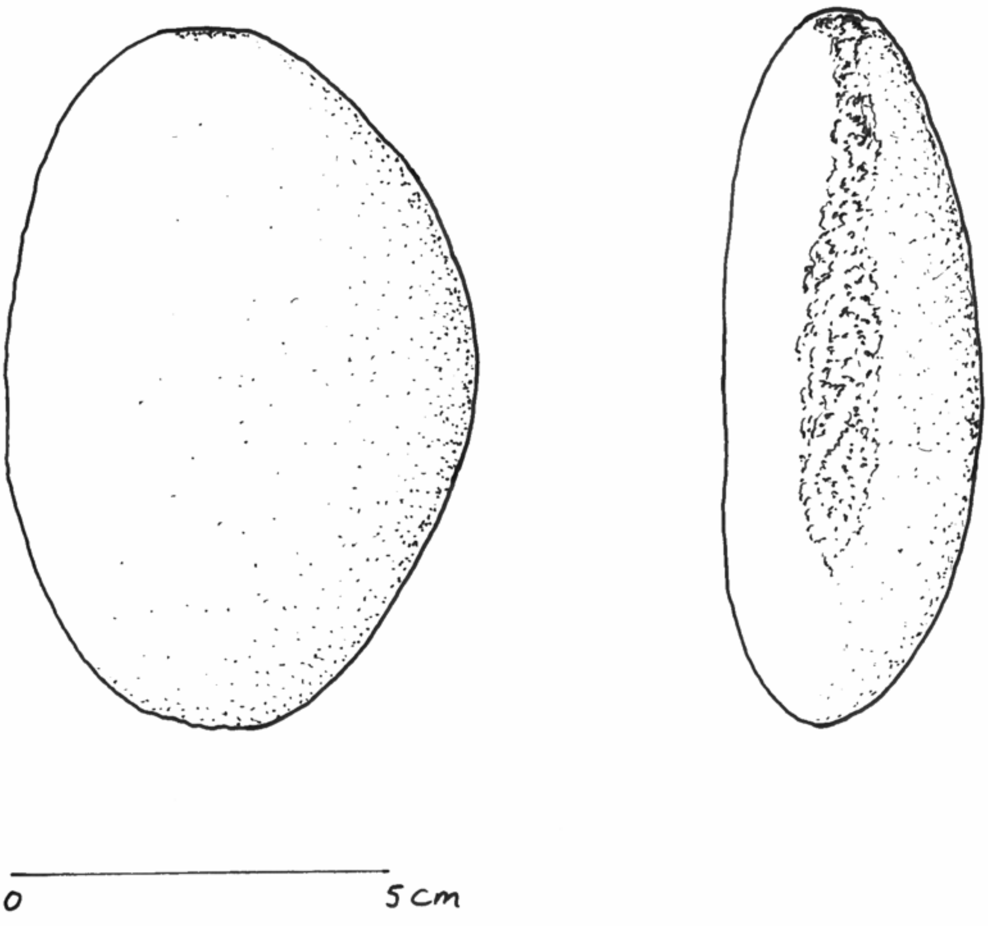

Fig. 19 Hammerstone

Another type of hammerstone is presented in figure 20.

This is a hammerstone made from a metamorphic sandstone pebble and is characterised by a central, round pit in the middle of the tool. Both sides have such a pit and this hammerstone is more likely to have been used for cracking nuts.

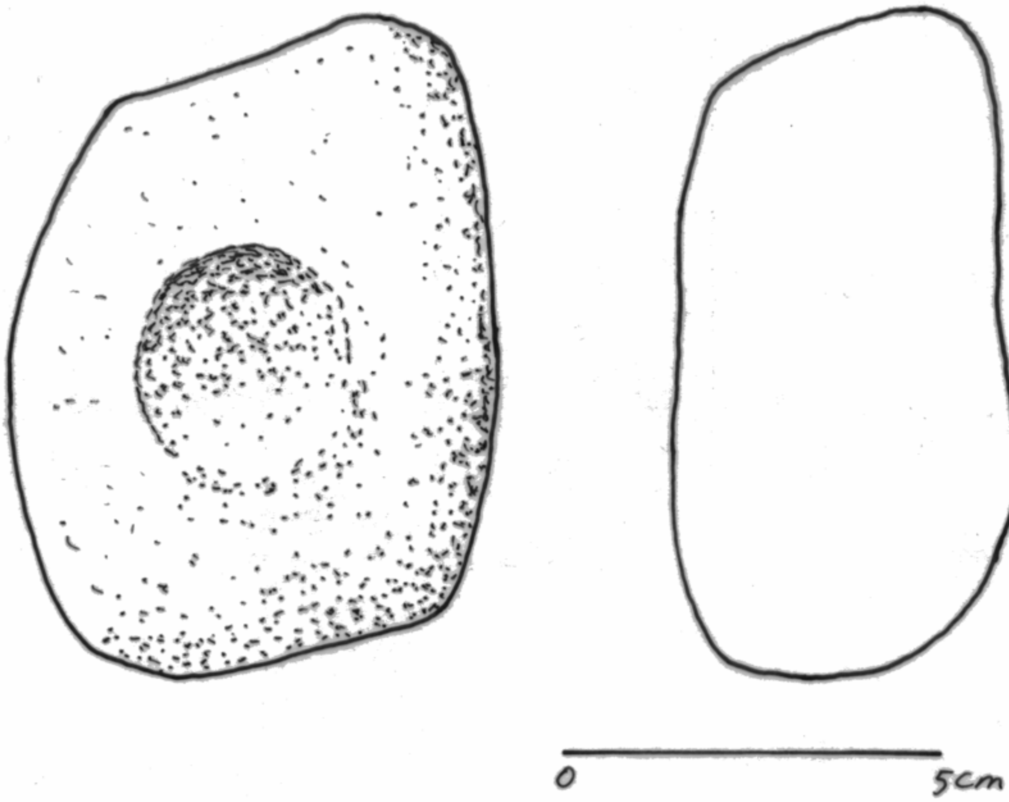

Fig. 20 Hammerstone

Summary and conclusions on finds from midden deposit F137
In total 275 sherds were collected from this midden deposit. It must be stated that only largest sherds from this midden were collected. Small fragments of which the ware type could not be determined were not sampled. The majority of these sherds are of the ware type 5 of which 228 sherds were found. This accounts for 82,9 %. Nine sherds of the ware type 1 were found (3.2 %), four sherds of the ware type 2 (1,4 %) and two sherds of ware type 3 (0,7 %).
Based of the presence of a number of ceramic vessels of (specifically) ware type 1 and 2, this midden deposit can be dated in the Palo Seco period. Decoration modes that were noted are red slib, incisions, nubbins and zoomorphic modelling (adornos). In total 6,5 % of all sherds within this midden complex has some form of decoration.
The dominant vessel form is the T&T Cedrosan form 1, which represent open, round and oval shaped bowls with unrestricted orifices.
One vessel of the T&T Erin form 10 was found.

Regarding the stone and lithic finds the following can be concluded. The majority of the stone and lithic finds can be classified as foreign to the Manzanilla 1 region. This is most certain for the metamorphic sandstone artefacts, the black flint flakes, the quartz crystal and the diorite bead.
In order to obtain raw materials, or finished products, the inhabitants at the Manzanilla site hill were focussed on the Northern Region of Trinidad. All 'exotic' stones such as metamorphic stone and quartzite crystals can be found here. Also waterworn chert and sandstone pebbles are more abundant here. However, if the Manzanilla hill inhabitants themselves collected these stone materials or that the raw materials or finished tools were obtained by means of exchanges cannot be said.

3.3.3 Postholes associated with Structure D
In the fill of the majority of the postholes, which are associated with Structure D, artefacts were found. These are presented and discussed below.

Findnr.	Context	Sherd type	#	Decorations	#	Ware type	Remarks
9	F125	base	1			5	pedestal foot
		wall	21			5	
		rim	1			5	straight rim
		rim	1	red slib+incision	1	5	
7	F129	wall	3			2	
11	F130	wall	15			5	
20	F133	wall	4			5	large quantity of sand
		rim	1			5	
19	F134	wall	4			5	
37	F159	wall	6			5	
		rim	2			5	
26	F162	wall	9	red slib	1	5	large quantity of quartz sand
		rim	2				quartz sand, 1 flanged lip
		wall	4			4	
18	F168	wall	11			5	
		wall	1			1	
		wall	1			4	with mica and crushed quartz
13	F172	wall	3			5	
12	F173	wall	11			5	
17	F177	wall	7			5	
10	F183	wall	1			5	

Ceramics found in the postholes of Structure D

In total 109 sherds were found in the fill of the postholes of Structure D. The characteristics of these sherds shows somewhat of a contradiction in terms of dating these ceramics.
Indications which suggests a Palo Seco date are that no sherds of the ware type 3, which are within the SAN 1 ceramic repertoire associated with the Arauquinoid period, were found. Furthermore, one sherd of ware type 1 was found.
Indications, which suggest an Arauquinoid date for this structure, are the presence of several sherds with a large quantity of quartz sand in the matrix. Also sherds with mica and crushed quartz were found, which are associated with the (terminal and) post Saladoid period (Harris, 1983:113-115, Boomert, 1983, Dorst, 2000). Crushed quartz is suggested to be a specific temper type for the Barrancoid series (Erin complex), while the quartz sand tempered sherds indicate an Arauquinoid series (Bontour complex) date. So, the most suitable date for this structure is to be found between AD 650 and 850.
Especially mica is found in the Paria mountain region of Trinidad, and here quartz sources are also present. This could suggest a cultural connection with the Northern Range area during this occupation phase.

In the fill of these postholes also several stone and lithic artefacts were found, which are described below.

Findnr.	Context	Stone type	#	Tool/artefact type	Remarks
6	F125	chert	1	debitage	
7	F129	flint/chert	1	flake	black flint/chert
26	F162	chert	2	debitage	
		chert	1	flaked pebble	
		chert	1	flake	with cortex
		sandstone	1	flake or chip	greenish-gray
18	F168	chert	2	flaked pebble	
12	F173	quartz	1	unmodified piece	small waterworn milk-colored pebble
45	F197	chert	2	debitage	
		quartz	1	debitage or chip	fragment of transparent quartz crystal

Stone and lithics found in postholes of Structure D

Among the recovered stone and lithic artefacts are mainly flakes and debitage of chert/flint, sandstone, and quartz.

One shell artefact was found in the fill of one of these postholes.

Findnr.	Context	Shell species	#	Tool/artefact type	Remarks
11	F130	undeterminable	1	bead	very small, round bead

Shell artefact, which was found in the centre-post F130 of Structure D

This is a small shell bead, which was found in the centre-post F130 (findnr. 11). A drawing and photo of this bead are presented in figure 21.

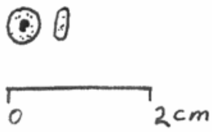

Fig. 21 Profile and level 2 drawing of SU 6 and SU7

Summary and conclusions on finds from midden deposit F137
In total 109 sherds were collected from this fill of the postholes that are associated with Structure D. Based on the characteristics of these sherds Structure D can be dated in the Early Arauquinoid period, between AD 650-850.
Furthermore, a small, shell bead was found in one of the centre-posts of Structure D.

3.3.4 Finds from SU7

The stratigraphic context of the finds from SU7 is presented in figure 22.

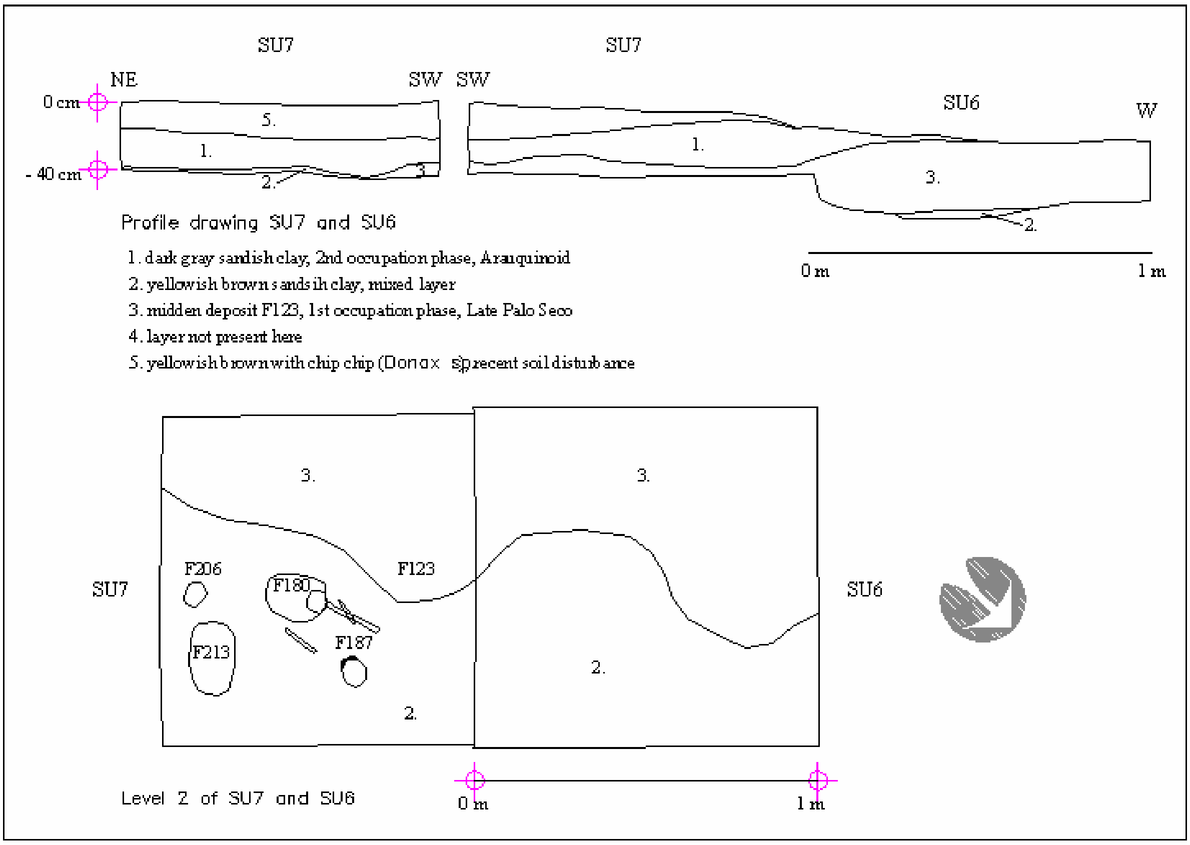

Fig. 22 Profile and level 2 drawing of SU 6 and SU7

In SU7 a midden deposit was found which was a continuation of midden deposit F123, which was found in SU6 in 2003. This midden was also dated in the late Palo Seco period and is likely be represent a continuation of midden F122 (T3) and F137 (LU4).
In 2003 was suggested that layer 1, which is partly overlaying midden F123, represented a post-habitation layer (Dorst, Nieweg & Altena, 2004:18).
However, in SU7 several burials were found, which were inhumed trough and in this layer, So, it likely represents a second occupation phase.
Within this layer some artefacts were found which are presented en discussed below.

Findnr.	**Context**	**Sherd type**	**#**	**Decorations**	**#**	**Ware type**	**Remarks**
34	SU7, layer 1	wall	24			5	large quantity of sand
		wall	4			3	thin sherds
		rim	3			3	

Ceramics found in the topsoil layer of SU7

In total 31 sherds were found in layer 1. The majority of the sherds are of the ware type 5, however, an extra characteristic is that they contain a large quantity of quartz sand.

The rest of the sherds are of the ware type 3, which is especially associated with the Arauquinoid period within the SAN I ceramic complex. Furthermore, non of the sherds was decorated and no sherds that can be dated in the Palo Seco period were found, so, this layer 1 can be ascribed to the Arauquinoid occupation phase.
One example of an open bowl of the ware type 3 is presented in figure 23 (findnr. 34).
Most likely this represents an oval shaped vessel.

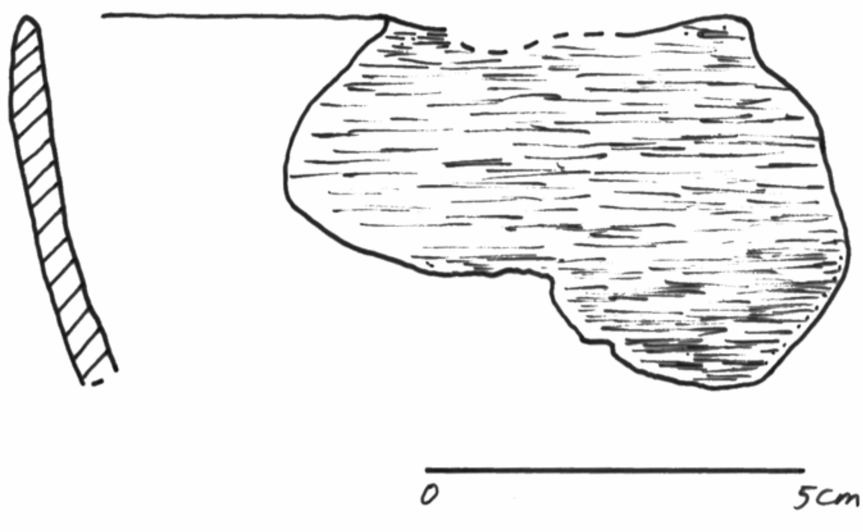

Fig. 23 Arauquinoid open bowl fragment, ware type 3

Also some stone and lithic artefacts were found in this top layer, which are presented and discussed below.

Findnr.	Context	Stone type	#	Tool/artefact type	Remarks
34	SU7, level 1, not midden	chert	2	debitage	
21	around F180, level 1	sandstone	2	unmodified pieces	one red, one gray

Stone and lithics found in the topsoil layer of SU7

No specific stone or lithic artefacts were found within this layer.

Summary and conclusions on finds from the topsoil layer in SU7
The topsoil layer of SU7 can be dated in the Arauquinoid occupation phase, which is based of the characteristics of the ceramics.

3.4 Burials; introduction and methods

In this paragraph all burials which were excavated in 2004 are described. This includes the methods used for determination and conclusions regarding the inhumations that were found during this years fieldwork.

All burials were excavated in horizontal levels. If necessary, for instance in cases when bone material was positioned vertically, a vertical profile was left standing.
During the excavation physical anthropological observations, that hold indications for sex and age determination, possible pathological bone changes and burial processes, were instantly noted on specific forms (Maat, 1995). A description of the colour, structure and contents of the features was made. The position and orientation of almost every single human bone was noted using appropriate terminology (Ubelaker, 1989 and White & Folkens, 1991). Different types of posture of the skeletons are noted described the position of the arms, legs and head (Ubelaker, 1989).
The different levels of the excavated burials are photographed and drawn on a 1 to 5 centimetre scale, connected to the local grid system. When possible and useful the altitudes of the surface and bottom of the features and locations of individual bones were measured. After documentation of a level, the bones were removed, washed, preserved, labelled individually and stored in anatomical categories (Left, right, arm, leg, pelvis, vertebral column, etc).
Morphological sex determination is based on the sex traits of the pelvis and the skull (Acsádi & Nemeskéri, 1970 and Workshop of European Anthropologists, 1980). Metrical sex traits, although population specific, are noted as well. (Steward, 1979 and MacLaughlin & Bruce, 1985). Skeletal age determination for unadults is based on the dental eruption (Workshop of European Anthropologists, 1980 and Ubelaker, 1989), ossification of the axial skeleton (Rauber-Kopsch, 1952 and Wolff-Heidegger, 1954) and epiphyseal fusion of the postcranial skeleton (Workshop of European Anthropologists, 1980 and Brothwell, 1981). The adult skeletal age is based on average attrition of the teeth for prehistoric populations (Brothwell 1981, and White & Folkens, 1991), ectocranial suture obliteration (Rösing 1977), deformation of sternal extremity of the costae (Isçan, Loth & Wright, 1984 and Isçan & Loth, 1986), deformation of the pubic symphysis (Acsádi & Nemeskéri, 1970 and Workshop of European Anthropologists, 1980). The dental status is recorded (Brothwell, 1981, Pot, 1988 and Bouts & Pot, 1989) and pathological bone changes are described (Ortner and Putschar, 1985, Roberts and Manchester, 1995 and Rogers and Waldron, 1995).

3.4.1 Results

A total number of 13 new burials were found, which are summarised in the table below.
One burial (F117), which was found in 2003, was reopened and completely excavated this year.

Square	Feature	Interpretation	Artefacts in fill	Period
LU4	F126	primary burial	Ceramic, stone, lithic	Arauquinoid?
LU4	F127	primary burial		Palo Seco?
LU4	F131	primary burial	Ceramic	Palo Seco?
LU4	F138	secondary burial in posthole?	Ceramic, stone, lithic	Arauquinoid?
LU4	F178	primary burial		not excavated
LU4	F189	primary burial		not excavated
LU4	F196	primary burial		not excavated
LU4	F197	primary burial in posthole	Ceramic, stone, lithic, shell	Arauquinoid
LU4	F198	primary burial		not excavated
LU4	F212	primary burial		not excavated
SU7	F180	secondary burial	Ceramic	Arauquinoid
SU7	F187	primary burial		Arauquinoid
SU7	F206	secondary burial		Arauquinoid
SU6	F117	primary burial	Ceramic	Arauquinoid?

Each one of them will be discussed below, including descriptions on the skeletal bone material and artefacts found in the burial pit fill. During the 200 campaign, thirteen new features containing human skeletal material were found, of which five (F117, F126, F127, F131 and F197) were completely excavated. Four inhumations, F138, F180, F187 and F206, were opened and partly excavated and documented. The remaining burials (F178, F189, F196, F198, F212) were left unopened.
All burials will be discussed per habitation phase, first all the Palo Seco burials will be discussed, followed by the burials which were dated in the Arauquinoid period.

Palo Seco burials

Feature 127
The burial pit of this feature was hard to distinguish from the surrounding soil. The fill consisted of a mottled, brownish-gray, very fine siltish sand. It was found just below the present day surface and was therefore poorly preserved. The cranium and mandible were not present, nor were any teeth found. It is not sure if these were removed before or after interment or if these bones were just not preserved. The remaining parts of the body were found more or less in anatomical position. This interment had a S-N orientation.

Method of disposal
Due to the damage on the skeleton it was hard to reconstruct the original body position but this was probably positioned on the back with the legs flexed, under which the arms were folded. This position suggests that the body was wrapped in a piece of cloth before interment. It most likely represents a primary burial. The burial pit did not contain any ecofacts or artefacts that could be regarded as funerary furnishings or mortuary gifts.

Age, sex and pathology
The age of this individual is difficult be determine since it was so poorly preserved. It was clear however, that it belonged to an unadult. The age is estimated to be approximately 8 years, based on the distal ends of the phalanges and the skeletal size, compared to that of the infant of burial feature F7 (Beatsen, S., 2003: 41-42).

Feature 131
The contour of the burial pit was hard to distinguish from the surrounding soil. The fill of the burial pit consisted of grayish-brown, very fine siltish sand mixed with midden-material. The burial was located just below the present day surface. The interred individual was found in an extended position on the back. The body orientation was NW-SE.
The bones were poorly preserved, possible by root disturbances. Of the cranium only the back part was preserved. The right humerus was missing, while the right radius and ulna were located in such a way that the hand rested on the pelvic bone. Both radius and ulna were more or less in right anatomical position. This position suggests that the humerus was originally present and located on top of the right side of the body. Some fragments of the left humerus were found located next to the body on the left side. Fragments of the left radius and ulna were also found, at the height of the pelvic bone, but they appear to have been moved from their original position. The spinal column was positioned in such a way that it appears that the interred individual was originally positioned on the left side of the body. This is also suggested by the location of the right- and left arm bones, which were found on a somewhat higher position in the burial pit. From the lower leg bones only the proximal parts were present. The remaining parts of the lower leg- and the feet bones were most likely destroyed by the backhoe. This suggests that the lower legs were originally located somewhat higher above the rest of the body. This was also observed at the burials F98 and F99 (Dorst, Nieweg, Altena, 2004: ch.3.4).
Drawings and photo of this burial are presented in figure 24.

Method of disposal
The position of several bones suggests a primary burial and the interred individual was originally positioned on the left side, but that the body later fell back against the southern wall of the burial pit. Due to the poor preservation of the bones, however, it is difficult to determine the original position of the body. There were no signs of human disturbance, suggesting post mortuary activities, of the burial pit in Amerindian times. Furthermore, this burial did not contain any funerary furnishings or burial gifts.

Age, sex and pathology
The skeletal remains were too poorly preserved for analysis concerning age and sex. The length of the skeletal remains however, suggests that it represent at least a young adult. No pathological bone changes were observed.

Artefacts from burial pit
Only ceramics were found in the fill of this burial pit.

Findnr.	**Context**	**Artefact type**	**#**	**Decorations**	**#**	**Vesselshape**	**Ware type**
33	F131	wall	7				5
		rim	3				5

In total ten sherds were found, which showed no special characteristics. All sherds belong are of the ware type 5 and non are decorated. No specific traits were noted that should give any information on a possible date.

Fig. 24 Drawing and photo of feature and burial F131, scale rod 30 cm

Arauquinoid burials

Feature 117
This feature was already partly excavated during the field campaign of 2003. The burial pit was dug trough the Palo Seco midden deposit F123 in SU6. Below the midden the feature is clearly visible as a dark brown-gray oval shape with some midden material in the undisturbed yellowish brown-gray, very fine siltish sand. The burial first appeared as two clusters of bones, out of anatomical position; in the north mostly bones of the upper body and in the south mostly bones of the lower part of the body. On a lower level it became clear that they represent a primary burial of a single individual. The cranium, mandible and both humeri were not present in the burial pit. The presence of some teeth on the bottom of the pit and the proximal epiphysis of the left humerus prove however that they originally were present.
Both feet were partly in anatomical relation and on their original location. Also the atlas and axis were found connected and on the anatomical location. However, they were moved from their original position. Based on the location of the feet bones and the grouping of other skeletal elements, the original body orientation was probably NW-SE. The position of the feet, leg bones and the shapes of the burial pit suggest that the original body position was seated with the legs flexed against the body. The bones were well preserved. Drawings and photo of this burial are presented in figure 25.

Method of disposal
Since the feet were still partly in anatomical position and some teeth were found on the bottom of the pit, it seems clear that this feature originally contained a primary burial of a single individual. After interment the pit was opened to remove some bones, by which the original skeletal position was disturbed.
There were no objects present in the pit that could be regarded as funerary furnishings or mortuary gifts.

Age, sex and pathology
Ossification of the axial skeleton shows that this person was between 17 and 19 years old. The pelvis could be analyzed on six traits concerning sex. These showed a strong tendency towards masculinity.
The skeleton is not yet thoroughly analyzed on pathological bone deformations.

Artefacts from burial pit

Findnr.	Context	Artefact type	#	Decorations	#	Vesselshape	Ware type
47	F117	wall	9				5

Nine wall sherds of the ware type 5 were found in the fill of this burial pit.

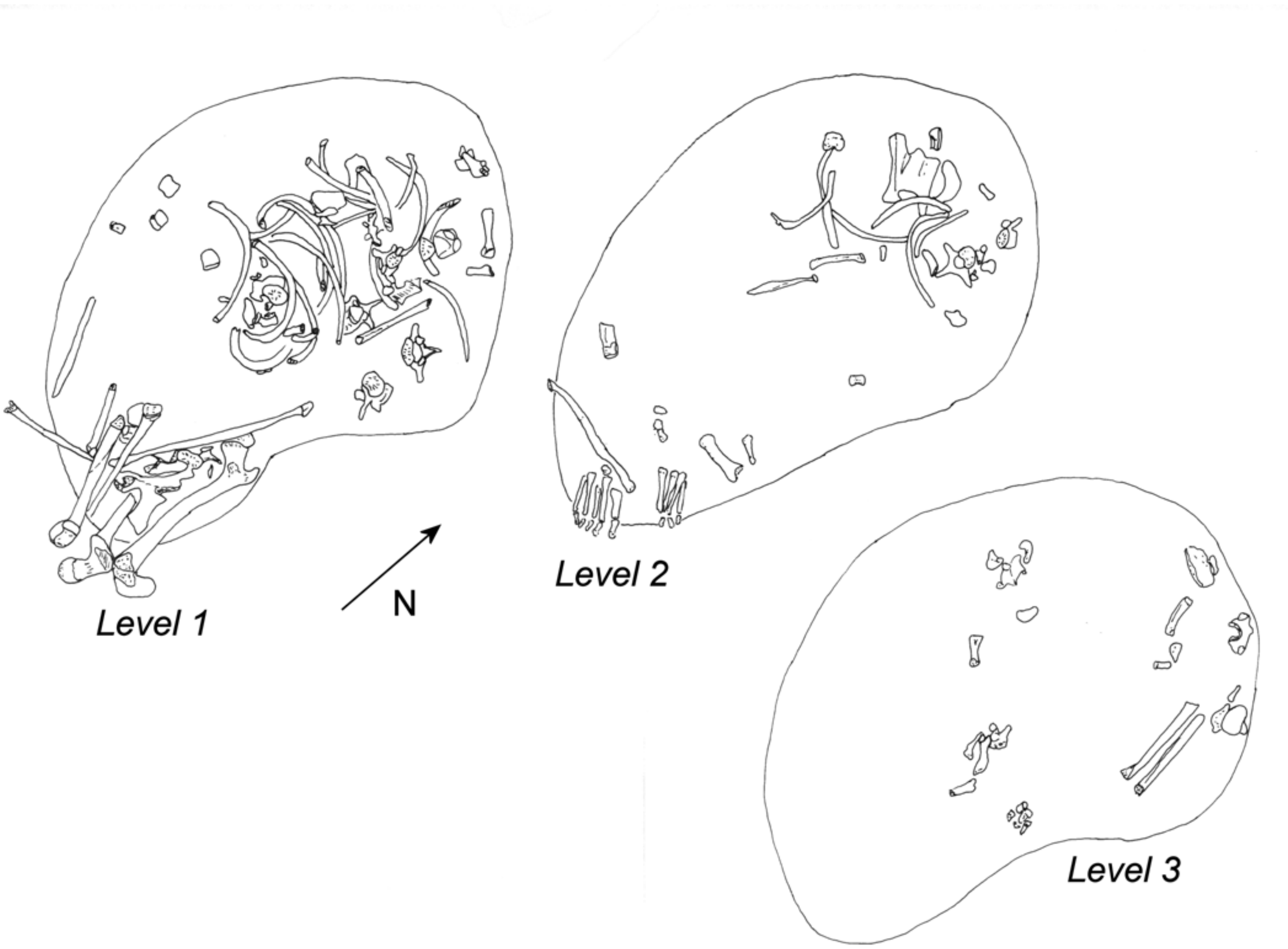

Fig. 25 Drawings of the three levels of burial F131

*Fig. 25 P*hoto of level 2, burial F131, scale rod 30 cm, note the still articulated feet

Feature 126
The burial pit was clearly visible as a oval shaped, dark brownish-gray feature with some midden material. It was dug in a brownish-gray, very fine siltish sand, representing the habitation level. At first the feature was not recognized as a burial pit. A cross section was made, which caused some damage on the left elbow and knee joints. The section profile clearly showed that the lowest filling of the pit consisted of the same material as that of the habitation level. The upper level of filling contained also some midden material. The bones were moderately well preserved. This individual was found half seated/half lying on the back with flexed legs. The body orientation was NE-SW. The cranium was resting on a large waterworn pebble, with two more stone on each side of the head to keep it in place. Furthermore, large stone were also found below the right arm bone and below the spinal column, between the scapulea.
The presence of deliberately placed stones in the burial pit was also observed at burials F78 and F111 (Dorst, Nieweg, Altena, 2004: ch.3.4).
The leg bones of this individual were leaning against the walls of the pit and the pelvic bones were right in front of both feet. The left lower arm- and hand bones were located below the left leg bone. The right lower arm bone was located below the right leg bone, however, the right hand bones were on top of the pelvic bones. The vertebrae were slightly orientated towards the west. The left ribs felled eastwards on top of eachother, while the right ribs were still standing in the original upright position.
The cranium rested on the first ribs, facing the west.
It appears that the body was originally placed in a seated position with the legs flexed in front of the body in an upright position, but that the body later slipped forward, causing the legs to fall sideways agains the walls of the burial pit. Hereby, at least the right lower arm bone was moved from its original position, which suggestively was located on the waterworn pebble on the right side of the body.
This suggests that the pit was partly left open for some time, which is also suggested by the presence of two different phases of fill in the burial pit.
Drawings and photo of this burial are presented in figure 26.

Method of disposal
This concerns a primary burial of a single individual in a simple, barrel shaped pit. The pit was probably left open for a while, long enough for the legs to fall against the walls of the pit, but closed before the right ribs could fall sideways. This suggests that the pit was closed before serious decomposition of the body had started. Funerary furnishing was observed which is present as several large stones that supported the position of the head, and below the right arm and shoulders. No artefacts were found in the burial pit which could be regarded as mortuary gifts.

Age, sex and pathology
The age of this individual was, based on dental eruption in the maxilla and mandible, estimated to have been approximately 10 years, plus/minus 30 months. This is too young to determine the sex of this individual. No pathological bone changes were observed, however the front teeth of the maxilla were shovel-shaped.

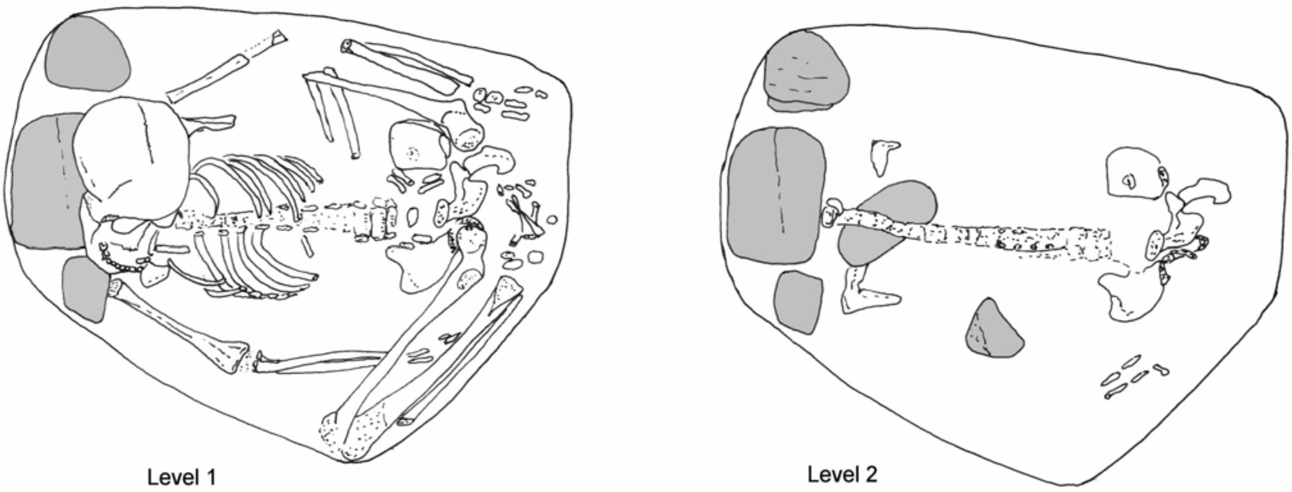

Fig. 26 Drawing and photo of feature / burial F126, scale rod 30 cm

Artefacts from burial pit
Both ceramics and stone and lithic artefacts were found in the fill of the burial pit.

Findnr.	Context	Artefact type	#	Decorations	#	Vesselshape	Ware type
31&36	F126	wall	25				5
		rim	4	incision	1		5
		handle	1				5
		wall	2	incision	1		1

In total 32 sherds were found in the fill of the burial pit, of which two are decorated (6.2 %). Furthermore, one of these sherds can be classified as a ware type 1, which is associated with the Palo Seco complex. No ceramics were found that can be associated with the Arauquinoid complex were found.

Findnr.	Context	Stone type	#	Tool/artefact type	Remarks
31	F126	chert	3	debitage	
		metamorphic sandstone	1	flake or chip	
		metamorphic sandstone	1	pebble or tool part	with orange/red residue or paint

Stone and lithic artefacts include three pieces of chert debitage, a metamorphic sandstone flake or chip and one metamorphic sandstone object with an unidentified orange/red paint or residue. It is possible that this object had some kind of function during the funeral rite, and can possibly be associated with the burial itself.

Feature 138
Because of the complexity and poor conservation, this burial was only partly excavated and documented. It most likely represents a secondary deposition of more than one individual. It possible concerns a posthole in which several longbones were placed in a more or less upright position. On top of these bones a single cranium was placed. This feature will be further excavated during a next field campaign.

Artefacts from burial pit
In the pit of this secondary burial ceramics, stone and lithics were found. However, this pit, or possibly posthole protruded the Palo Seco midden deposit F137, so, these artefacts are not reliable for the date of this burial.

Findnr.	Context	Artefact type	#	Decorations	#	Vesselshape	Ware type
40	F138	wall	1				4
		handle	1				5
		wall	2				5

Findnr.	Context	Stone type	#	Tool/artefact type	Remarks
40	F138	chert	2	debitage	
		chert	1	flake	
		metamorphic	1	debitage or chip	
42	F138	chert	2	debitage	

In total four ceramic sherds and six stone or lithic artefacts were found.

Features 180, 187, 206
A large irregular feature was found in SU7, which contained three depositions of human skeletal material. Each was given a different feature number. The layer in which these burials were found consisted of dark brown-grayish, siltish sand, which superimposed the Palo Seco midden deposit F123.
At first F180 was discovered. This was a compact bundle of very fragmented, but well preserved bones out of anatomical order.
The bundle contains at least two craniums and two mandibles and besides that mainly longbones and ribs. On and around the bundle small fragments of pottery and chert were found.
After this top level was drawn and removed, the second level was drawn. By that time it also became clear that this bundle was not an independent deposition, but located on the pelvic area of another inhumation; F187. This feature represents a primary interment of a single individual, which was buried on its back.
The bones was fragmented, but moderately preserved. Since the lower area of the skeleton was not uncovered during this campaign, it is not clear whether the legs were stretched or flexed. The body orientation was N-S. The cranium faces southwest.
The excavated bones of the upper body were found in anatomical position. The ribs fell flat on the bottom of the pit. Both the humeri are located next to the body. The ulna and radius are located below F180, and are therefore not yet visible. F180 was not yet entirely removed to be able to study the exact relation between the two features. From the left side of the trunk, all that was visible were an ulna and radius at the place where the humerus should have been. On the right humerus a femur was found, with the proximal end towards the cranium of F187. It is not clear if this femur is part of the deposition of F180, or that it belongs to the individual of F187.
On the south-eastern side next to F187, at the height of the feet bones, another cranium was found, F206, facing down. Since there were no other bone fragments found near to this cranium, it probably concerns an isolated deposition of a single cranium. However, the feature could not be completely excavated due to lack of time, so this statement is not certain.
F180 and F187 were not completely excavated, so further analysis is necessary before a final conclusion can be made on these human bone depositions.
Drawings and photo of this burial are presented in figure 27.

Method of disposal
The secondary bone deposition of F180 was placed on top of the pelvic area of the primary burial of F187. This interment (F187) was at least partly in anatomical position. This means that F187 was a primary burial, which was later opened to place the deposition of F180 on top of it. The relation with the cranium of F206 is not clear at this moment, but since it was probably placed in the same pit, it is likely that there is a relation with the other two depositions.

Age, sex and pathology
Since none of the features were completely excavated, or completely removed, thorough analysis for sex and age has not been done yet. However, it is clear that the craniums and mandibles of F180 belonged to adult individuals, which is based on dental eruption. So does the skeleton of F187. The mandible had lost all dental elements *ante mortem*. This suggests that it possible concerns an individual of old age. The maxilla was to damaged to observe traces of dental development. The cranium of F206 belonged to a sub-adult.
Assumptions about sex can not be made at this moment. Pathological bone changes have also not yet been recorded, but one loose tooth in F180 was shovel-shaped.

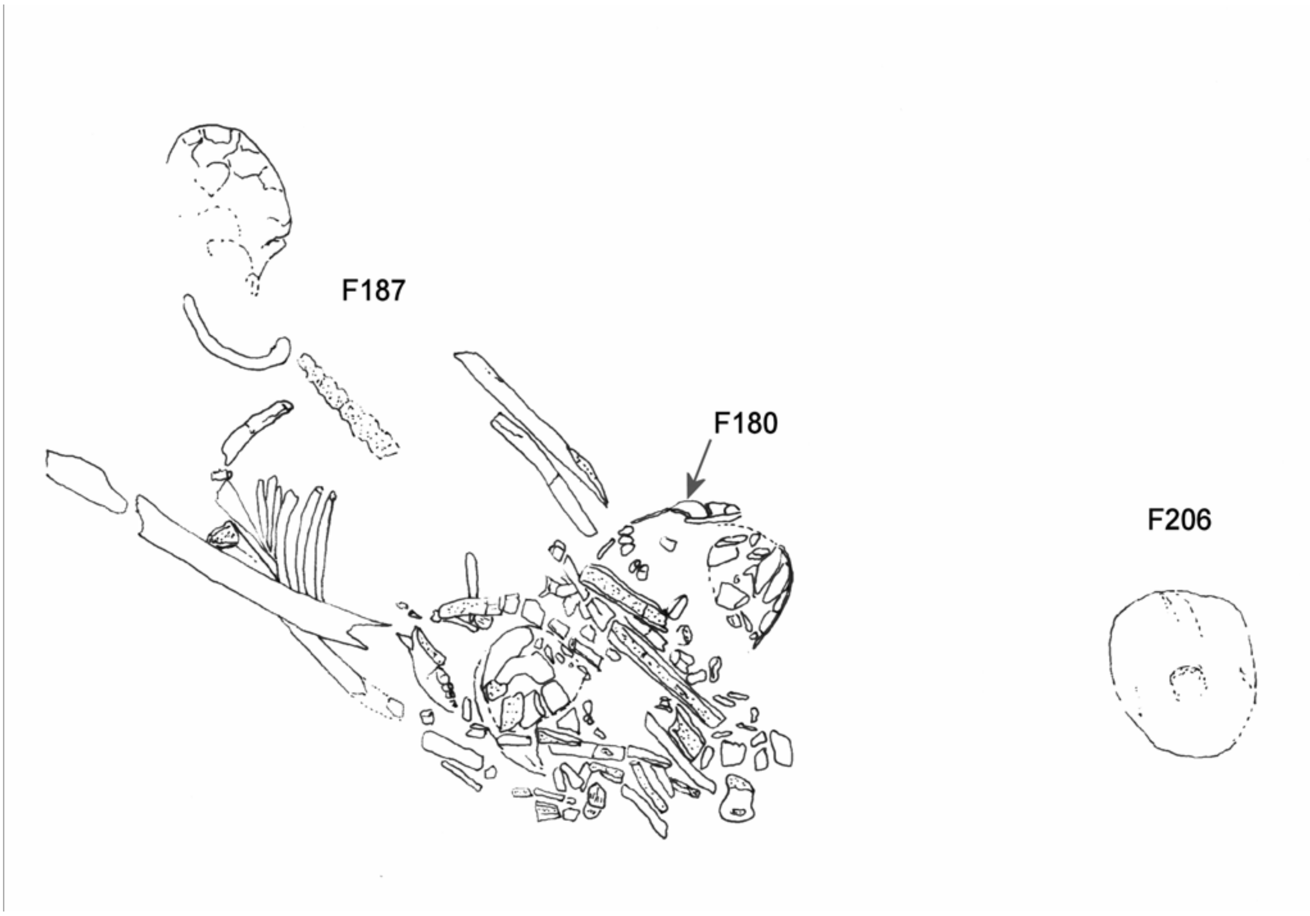

Fig. 27 Drawing of burial F187, 180 and F206

Fig. 27 Photo of burial F187, 180, scale rod 30 cm

Artefacts from burial pit

Findnr.	Context	Artefact type	#	Decorations	#	Ware type	Remarks
21	F180, level 1	wall	13			5	large quantity of sand
22	F180, level 2	wall	14			5	large quantity of sand

In total 27 sherds were found within this bundle of bones. All belong to the ware type 5, but contain large quantities of quartz sand. Based on this specific trait of the ware type 5, they can be dated in the Arauquinoid period.

Feature 197
This feature concerns a posthole, which secondarily was used as a burial pit.
The fill consisted of dark brown, sandish clay with some shell, charcoal fragments and a chip of transparent quarts. The interred individual belonged to an infant. It was probably interred in seated position in an E-W orientation, facing west. The bones are moderately well preserved but fragile. The skeleton was, still imbedded in the soil, removed as a whole block in order to excavate it under better circumstances. Because the soil was cemented and the bones extremely fragile, the bones were not removed but left *in situ* while all bones were exposed as much as possible.
A photo of this burial is presented in figure 28.

Method of disposal
Although the skeleton is not completely exposed, there are no indications that this posthole/burial was opened after interment. Therefore this burial can be described as a primary burial.
Since this individual was buried in an, possibly deliberately, emptied posthole it can be seen as a ritual deposition, rather than a 'normal' interment.

Age, sex and pathology
The dental development suggests an age of 3 to 4 years, plus/minus 12 months. This is too young too be able to determine the individual's sex. Pathological bone changes were not observed.

Fig. 28 Photo of burial F197 with location of mortuary gifts (in detail)

Artefacts from burial pit
In this burial pit ceramics, stone and lithics and shell artefacts were found. Two of these artefacts are associated with the inhumed individual and can be regarded as burial gifts.

Findnr.	Context	Artefact type	#	Decorations	#	Vesselshape	Ware type
45	F197	wall	16				5
		wall	2				1

Eighteen ceramic sherds were found. One of these is of the ware type 1, which is associated with the Palo Seco complex.

Findnr.	Context	Stone type	#	Tool/artefact type	Remarks
45	F197	chert	2	debitage	
		quartz	1	debitage or chip	fragment of transparent quartz crystal
		quartz	1	amulet/ornament	small waterworn transparent pebble with polished side

Four lithic artefacts were found, of which one can be regarded as a burial gift. This was a transparent waterworn quartz pebble with one smoothed, polished side and a flaked edge (figure 30).
It was located near the neck area of the buried individual and directly on top of the shell pendant. This object was supposedly fitted in an organic envelope and worn around the neck as a decorative ornament or amulet.
The quartz chip that was found in the fill is most likely not a part of this object since it could not be refitted.

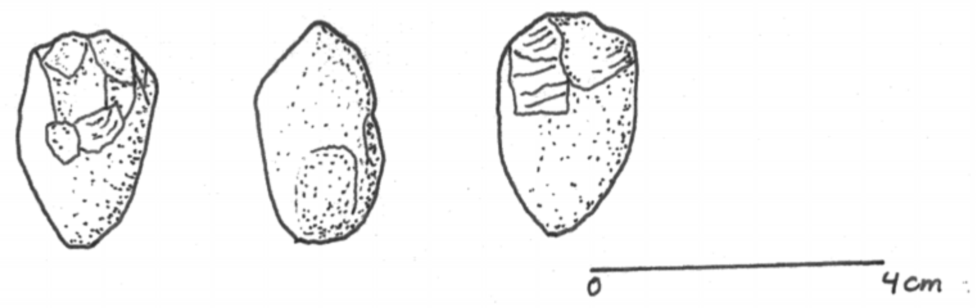

Fig. 30 Waterworn transparent quartz pebble, ornament or amulet

Findnr.	Context	Shell species	#	Tool/artefact type	Remarks
45	F197	*Strombus gigas*?	1	pendant	tooth-shaped, one hole

This shell pendant can be regarded as a burial gift. It was located in the direct area of the neck of the inhumed individual and was located below the quartz pebble, which was discussed above.
The shell pendant is five centimetres in length, 1.3 cm in width and was shaped in the form of a large tooth and is possibly made from *Strombus gigas* (figure 31). It has one very small drilled hole. While the start of this perforation is almost 0.5 cm in diameter, the actual hole is only 2-mm width.

The shape and size of the imitated tooth suggests that it should represent a large carnivore, likely a jaguar. Similar imitation jaguar teeth, made from manatee bone and conch shell, were found in Saladoid middens of the Sorcé site in Vieques (Naranges Storde 2003).

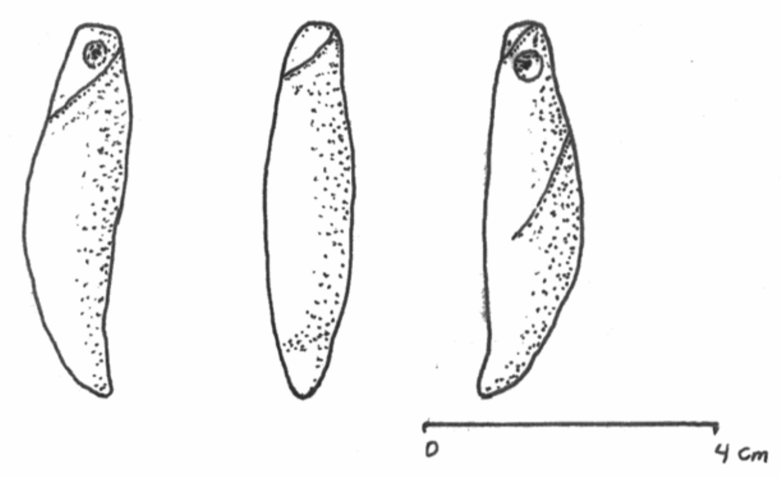

Fig. 31 Shell pendant, shaped like a large tooth, probably an imitation of a jaguars tooth

3.4.2 Summary and conclusions

During the 2004 campaign, thirteen new features containing human skeletal material were found, of which five (F117, F126, F127, F131 and F197) were completely excavated. Four inhumations, F138, F180, F187 and F206, were opened and partly excavated and documented. The remaining burials (F178, F189, F196, F198, F212) were left unopened.

Method of disposal
There were five primary burials and at least three secondary interments. All were located in simple, and most likely deliberately for the purpose of the burial excavated, pits. Except for F197, in which case the body was deposited in a posthole.
One individual, a child, was possibly wrapped in a piece of cloth before interment. One primary burial was placed on several larger stones, which were deliberately placed in the burial pit. The purpose for placing these stones in the burial pit is not known. In the case of the stones below and on both sides of the cranium it can be suggested that these were placed here in order to support the head and keep it in a certain position. This modification of the burial pit was also observed during earlier fieldwork at burials F78 and F111 (Dorst, Nieweg, Altena, 2004: ch.3.4).
In one case it was observed that the burial pit was left open for some time. Also the removal of several bones from the grave after interment was observed. Al these post mortal activities were observed at, suggested, Arauquinoid interments.

Body position and orientation
The primary interred individuals were found in three positions; one had an extended position buried on the back, three were found in a seated position with flexed legs and one on the back with flexed legs. The orientation of the bodies was very variable indicating that most likely no deliberate or favorable preference for body orientation was present among the Amerindians who lived here.

Age, sex and pathology
During the fieldwork in 2004 the whole age range between young children and old adults was encountered. Of most completely excavated individuals the sex could not be determined, either because the individual was too young or the needed skeletal parts were too badly preserved. Only one individual showed a strong tendency towards masculinity.
A more extensive physical anthropological analysis for pathologies was not conducted on these skeletal remains. In two cases, however, so called shovel-shaped upper front teeth were observed.

The burials that were excavated and studied during the 2004 field campaign are a valuable addition to the burials discussed in the previous reports. Many elements were already noticed in earlier excavated burials, such as the stones in some graves to rest the head on. Others were new, such as the burial gifts in the grave of a very young child, possibly indicating a ritual deposition rather than just a burial. Again it became clear that careful observation in the field can lead to interesting conclusions about the funerary behavior that was common to the people that inhibited this site during different periods.

Chapter 4 Summary and interpretation of the fieldwork results 2004

During this years fieldwork a large number of new features was found, which include a midden deposit, postholes, pits and burials.
The recovered midden deposit can be dated in the Late Palo Seco period based on the ceramics that were recovered from it. It proved to be a continuation of the deposit that was found in 2003 and has a northeast - southwestern orientation. This midden deposit probably represents the most outer ring of the Palo Seco village at this location. The orientation of this midden (across the width axis of this habitation area) indicates that the Palo Seco village habitation was most likely orientated parallel with the sea. At least one burial, which is located under this midden deposit, can be ascribed to the Palo Seco period with certainty. Some other inhumations close by can also be dated in the Palo Seco period, however, with less certainty. These are located close to eachother, have a stretched orientation and apparently (recognisable) post-mortal rituals are absent. These inhumations are not related or orientated around a house structure, but form a small cluster of burials, which can be interpreted as a specific designated, communal burial ground. These inhumations appear to be related to the midden deposit.
The existence of a specific communal burial location for the Saladoid period occupation was also suggested to be present at the Tutu site at St. Thomas (Righter, 2002:333).

Within the cluster of postholes that was found in 2004 one new structure was reconstructed.
This structure was named Structure D and has two large centre-posts and at least 15 smaller side posts. Not the total area of this structure was excavated as yet, so not the total number of side posts is known. The structure had an oval form and a (reconstructed) total length of some 12 – 12,5 m and was some 9 m in width.
Within this house plan two small tree-legged structures were identified, which were interpreted as drying or cooking racks within this structure.
Surrounding this house a number of postholes was present, which form an arc on the western side of this structure. Possible this arc of postholes is part of the total lay-out of the structure. It is unknown what the function of this arc was, but similar appendages were also recorded for several house structures at the Golden Rock site at St. Eustatius (Versteeg & Schinkel, 1991, chapter 4).

This house structure can be dated in the end of the Late Palo Seco or Early Arauquinoid period. Some burials are most likely to be associated with this structure, which are located directly outside and in the house structure. One burial is located inside the house and one inhumation of a child with burial gifts was present in one of the side posts of this structure.

It is possible that the new found Structure D is contemporary with Structure A, which was found in 2003. Both structures have a northeast –southwestern orientation, are oval-shaped and located close to eachother. The orientation of these houses suggests a similar village orientation as was suggested for the Late Palo Seco occupation phase.
This means that the communal space (*plaza*) during the Late Palo Seco and Arauquinoid period was most likely present on the eastern (sea-side) side of the now investigated area. The suggestion that a *plaza* was present between the, up till now discovered houses, (Dorst, *et all*, 2003, 2004) must be rejected. In the area, which has been excavated since 2001, only houses and middens were present, and no large open spaces.

During the Arauquinoid occupation phase the houses were probably arranged around the same *plaza*, which should have been larger during this phase.
The number of houses that were arranged around the *plaza* would have been larger compared with the Palo Seco phase, which resulted in an expansion of this ring of houses in a western-north-western direction.
An increase of the population in the Arauquinoid period, which was suggested by Boomert (2000), can be seen as the motor behind this expansion of the ring of houses.
The two house structures A and D most likely represent houses within this enlarged occupation ring.
The related middens of this occupation phase are likely to be presented by the larger part of the dumps that are present on the slopes of the hill.
In contrast with the communal burial ground orientation of interments during the Palo Seco phase, burials during the Arauquinoid phase are family based and orientated around and related to house structures. This was also noted at the Tutu site (Righter, 2002:335-337, figures 12.35, 12.36 en 12.37).

Other exotic stone and lithics that have been found at the SAN I site are black chert/flint and diorite. In 1997 a small turquoise bead was found. Most likely they were also obtained within an exchange network and the source of the turquoise is most certainly located outside Trinidad. It is unknown what the source for the diorite was.

Based on the archaeological remains the inhabitants of the SAN I village site had specific relations with Trinidad's Northern Range, which is most clearly from the stone and lithic record. Stones and lithics that were obtained from this region include metamorphic (sand) stone, quartz rock and probably waterworn sandstone and mudstone (chert).

This relation with the Northern Range is also found in the ceramic record. Ceramic sherds with mica and glimmer in the matrix are most likely also produced in the Northern Range.
Furthermore, pieces of coral and objects made from *Strombus gigas* as well verify this relation with the Northern Range or the islands of the Lesser Antilles.

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