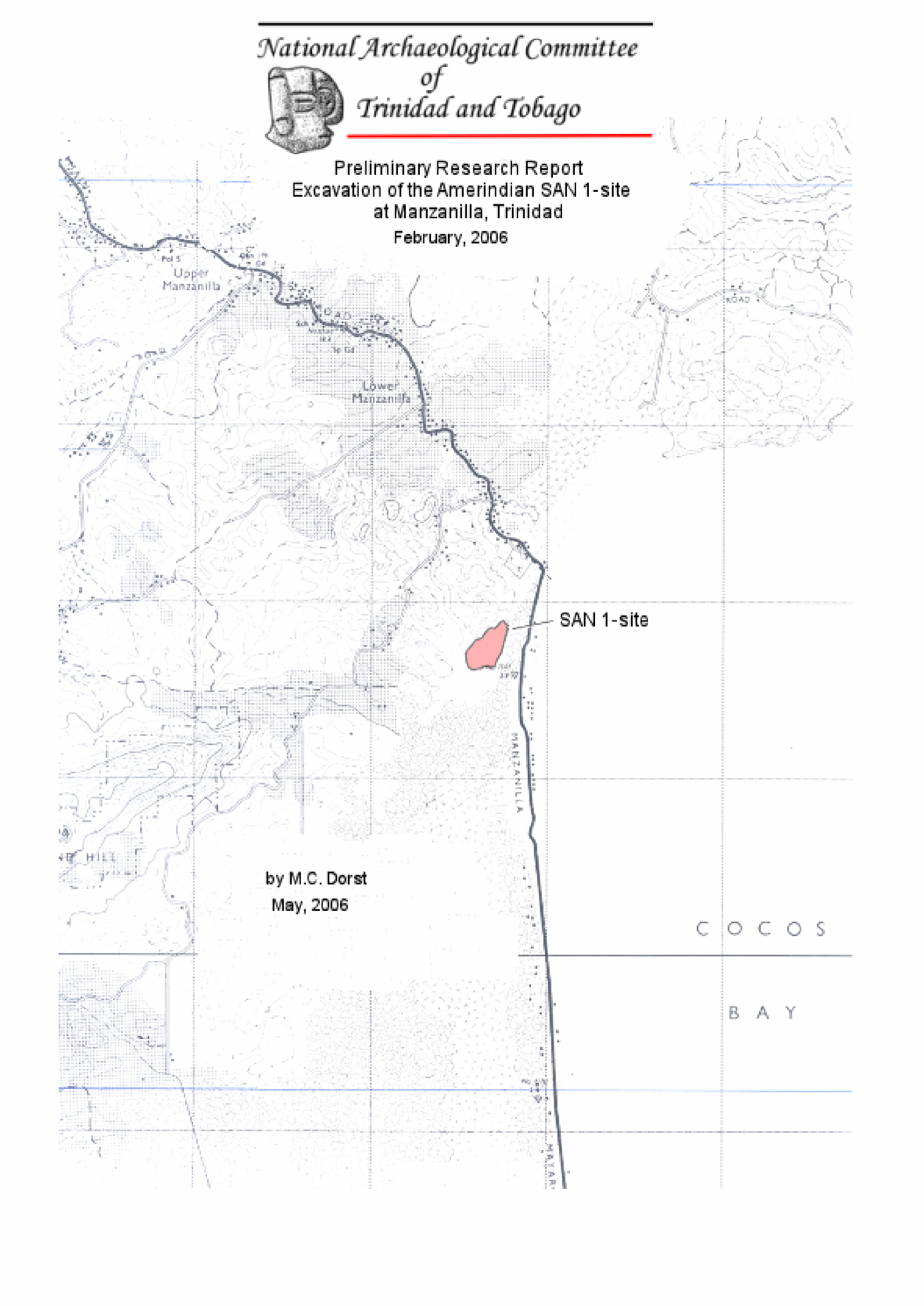
National Archaeological Committee of Trinidad and Tobago
Preliminary Research Report
Excavation of the Amerindian SAN 1-site
at Manzanilla, Trinidad
February, 2006
Upper Manzanilla
Lower Manzanilla
SAN 1-site
MANZANILLA
by M.C. Dorst
May, 2006
C O C O S
B A Y

Preliminary Research Report, 2006

Archaeological investigations at the Pre-Columbian SAN 1 site at Manzanilla, Trinidad
Excavation of an Amerindian vacant space
February 2006
Author: Dorst, M.C.

1.0 Introduction

In the month of February 2006 a team of six archaeologists continued the research at one of the four habitation locations at the pre-Columbian SAN 1 site near Manzanilla on Trinidad's East Coast (Fig.1). Research by Dutch archaeologists at this site started in with an inventory survey in 1997 (Dorst, 2000, Nieweg, 2000) including an augertest mapping program and small testpits. In the following years larger scale excavations were done in 2001, 2003 and 2004.
The Department of History of the University of the West Indies proposed the initiative for this research early 2001 and initiated and partly funded also this year's research campaign. The results of the previous fieldwork indicated that the SAN I site provided ideal conditions for Amerindian settlement research. Human and animal bones are excellent preserved and the spatial patterning of the village appears to be, for Caribbean archaeological standards, fairly undisturbed and rather easily recognisable.

This research program was funded (housing, food and material costs) by the National Archaeological Committee of Trinidad and Tobago, which is aligned to the University of the West Indies. The individual team members paid for their own air tickets. The Archaeological Department of the University of the West-Indies supplied some excavation equipment, such as a Total Station. A part of the fund was used for buying additional fieldwork materials which were afterwards stored at Dougies Guesthouse in Manzanilla.

The 2006 team consisted of the following persons:
Marc Dorst (MA, Leiden University), project director, spatial division and ceramics.
Richard Jansen (MA, Leiden University), Total Station operator, house structures.
Claudia Kraan (MA, Leiden University), osteo-archaeologist, specialist on physical anthropology and Caribbean mortuary practices.
Patrick Ploegaert (MA, Leiden University), fieldwork.
Clara Schamp (MA, Leiden University), fieldwork.
Pepijn van de Geer (MA student, Leiden University), fieldwork.

The following persons, who made this research program possible, receive our special thanks for providing this opportunity, their help and friendly corporation.
Professor Keith O. Laurence, Department of History, University of the West Indies
Dr. Basil A. Reid, Lecturer in Archaeology, University of the West Indies
Mr. Sinanan, owner of the SAN 1 site hill area
Mr. Douglas of Dougies Guesthouse, Manzanilla

2.0 Current state of research at the SAN 1 site

The 2006 fieldwork campaign was focused on the same area, which was examined in 2001, 2003 and 2004 (Dorst, Nieweg & Baetsen, 2003, Dorst, Nieweg & Altena, 2004, Dorst, & Altena, 2005). This is the northwestern habitation area in the middle part of the site (Fig.2).

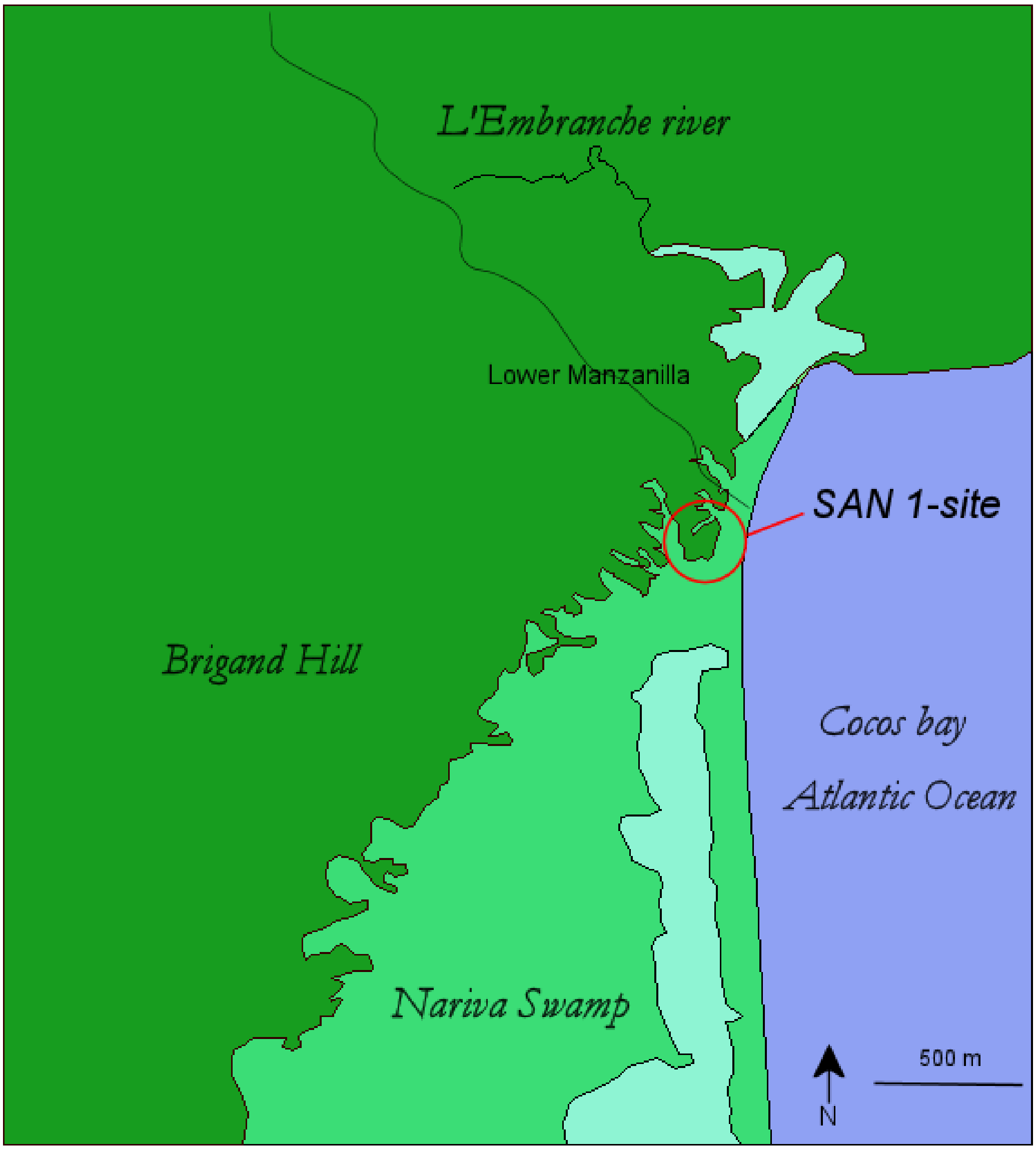

Fig.1 Location of the SAN 1 site

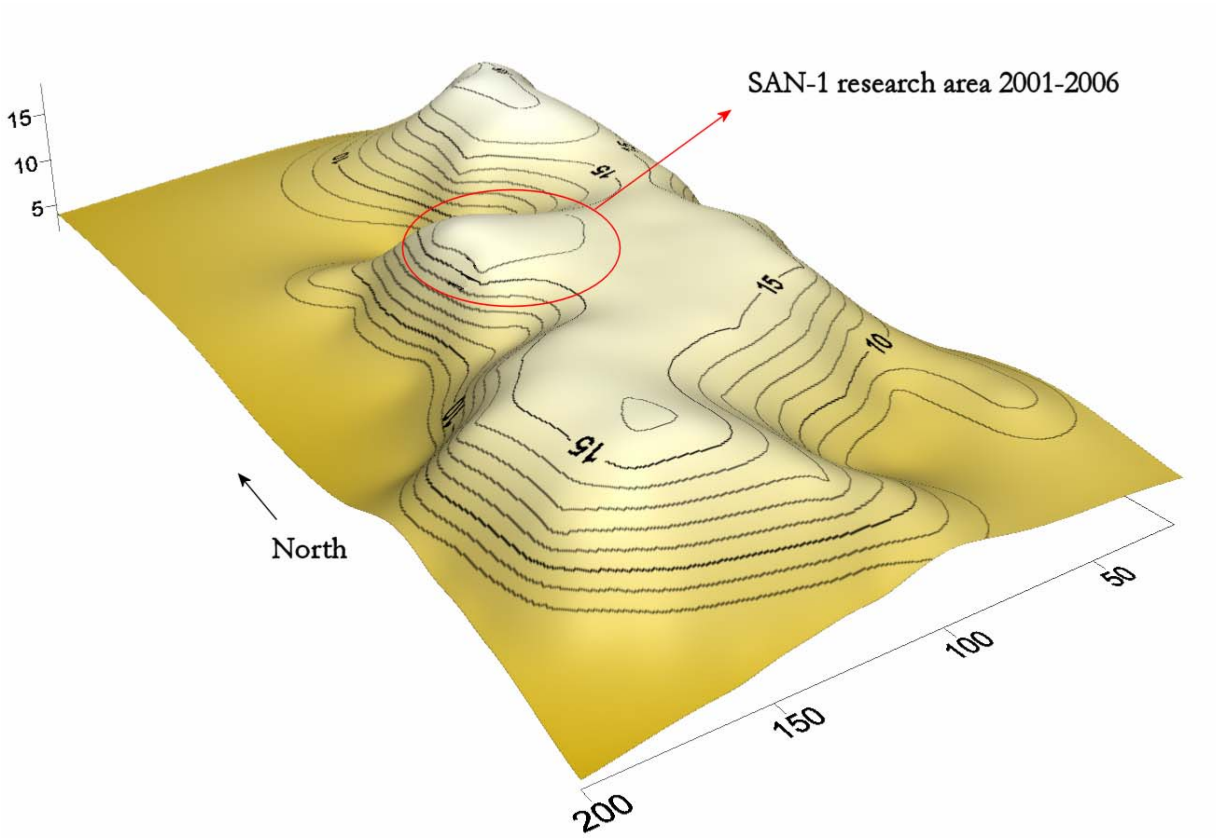

Fig.2 Location of the research area on the top of the SAN 1-hill

The fieldwork program of 2001 revealed that at the selected location at the plateau a habitation location is present (Dorst, Nieweg, Baetsen, 2003). At this vacant space features of two distinct periods of habitation were found. These are the Saladoid Late Palo Seco Period (AD 350-650) and the succeeding Arauquinoid Period (AD 650-1400).
The Saladoid period is represented by an area consisting of the lower levels of a midden deposit. Below, in and around this midden are at least nine inhumations which are considered do be associated with this midden. For now, this midden configuration and associated burials are interpreted as the outer ring of a Saladoid village.
The second, Arauquinoid, period is represented by a small midden, one house structure with least 20 associated inhumations. Based on some two C14 radiocarbon analyses done by the Trent University of Calcary, Canada, the burials around this oval house structure date between AD 1290 en 1410. These features indicate the presence of a village ring.
In 2004 a large number of postholes were found, suggesting the presence of second, larger house structure. Only 2/3 of the supposed total area of this structure was excavated in 2004. Within the interior of this house one inhumation was located, one was found in one of the postholes of the wall and 11 (possible) associated inhumations were located outside this structure. For now, this structure is also dated in the Arauquinoid period, however this is not certain, since solid C14 dates for this structure are lacking.

3.0 Research Objectives 2006

The main objective for this fieldwork campaign was to excavate two remaining unexcavated areas between Trench 1 and Large Unit 4 and between Trench 1 and Trench 2/Large Unit 3. These areas respectively measure some 4 m by 35 m and the second 5 m x 12 m. In the first location the remaining side posts of the large, second house structure that was found in 2004 are to be expected. The second location is located between the two houses, and here more inhumation can be expected.
Some of these new inhumations will be excavated, while three others, which were found in 2004, will be examined. Of these latter inhumations one (F119) is associated with the Saladoid midden deposit and two others (F187 and F180) are of a supposed Arauquinoid date. By excavating these two remaining locations nearly 1/6 part of the total site will then be excavated.
Finally, 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 set of data makes comparison with other larger scale settlement excavations such as the Golden Rock site on St. Eustatius, Anse a la Gourde on Guadeloupe, the Heywood site on Barbados and the Tutu site on St. Thomas more reliable.

Summarized, the main research objectives for the 2006 fieldwork campaign were the following:

1. Excavating the northeastern area next to Large Unit 4 (2004) were the remaining postholes of Structure D are expected.
2. Excavating several complex inhumations which were left unexcavated in 2004.

4.0 Fieldwork strategy February 2006

The same strategy, which was designed for the fieldwork program in 2001, 2003 and 2004 was followed during this campaign. This involved opening a larger area by using a backhoe and thus revealing the level where subsoil features are visible. Excavated areas were mapped by using a Total Station. A plan view of the excavated area was drawn. Features of postholes and pits were sectioned, photographed and drawn to scale. The feature fill was wet-sieved (mesh 0.5 cm) and cultural remains such as ceramics, stone artifacts and faunal remains were sorted out and taken as a sample for analysis. Burials were excavated by removing the dirt from the pit. Inhumations were photographed, drawn to 1:5 scale and studied *in situ*. All inhumations were removed and taken back to Holland for further study. Only one large area was excavated this year, due to problems with the backhoe, and lack of time. The targeted inhumations (F187 / 180, F119 and 189) proved complex and since some were opened twice already the conservation degraded. Therefore was decided that excavating these burials was the main priority, together with finding and documenting the missing postholes of Structure D.

1. Small test Units (SU)

Small tests Units were dug for the purpose of testing specific site area characteristics.
In 2006 no new Small Units were dug, but work continued in SU 6 and SU 7. In these units a Late Palo Seco midden deposit was found. In, under and around this midden four burials were found so far. At least one (F119) is expected to date from the Saladoid period, while another possible dates from the Arauquinoid period (F187 / F180).
Work on these burials, in both SU6 and SU7, continued in 2006.

2. 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 scraping was stopped at the first level were features became clearly visible.
One Large excavation Unit was made (LU 5). Its specific objective was to examine the direct adjoining area Northeast of LU4. Goal of this Large Unit was to look for the postholes that belonged to Structure D and investigate if more burials were situated here and if so, what their orientation was in relation to this Structure D.
Large Unit 5 measured 21 meters in length and 4.5 meters in width.

5.0 Preliminary Fieldwork Results and Interpretations

The preliminary fieldwork results are presented here in three categories:

5.1 Features: postholes, pits, burials and others
5.2 Material categories, ceramic, lithic, stone, coral, shell and faunal bone remains
5.3 Spatial lay-out of the SAN 1 site

5.1 Features: postholes, pits, burials

During this year's fieldwork a total number of 40 new features were discovered, mainly in Large Units 5. In total 20 features appeared to be of anthropogenic origin, the rest was identified as natural depressions, tree roots and animal burrows (Fig. 3). Four burials (F119 in SU6, F187 / F180 in SU7 and F189 in LU4) are mentioned in this list because they were completely excavated this year.

Square	*Feature*	*Interpretation*	*Artefacts & ecofacts in fill*	*Period*
SU6	119	primary burial	--	Saladoid / Paleo Seco
SU7	180	secundary burial	--	Saladoid / Palo Seco ?
SU7	187	primary burial	--	Saladoid / Palo Seco ?
LU4	189	primary & secondary burial	ceramic /stone / faunal remains	Arauquinoid ?
SU7	214	primary burial	ceramic	Saladoid / Palo Seco ?
LU5	222	posthole	ceramic / faunal remains	Arauquinoid ?
LU5	225	posthole	ceramic / faunal remains	Arauquinoid ?
LU5	227	posthole	ceramic / faunal remains	Arauquinoid ?
LU5	228	posthole	ceramic / faunal remains	Arauquinoid ?
LU5	229	posthole ?	ceramic / faunal remains	Arauquinoid ?
LU5	230	posthole	ceramic / faunal remains	Arauquinoid ?
LU5	231	posthole	ceramic / faunal remains	Arauquinoid ?
LU5	233	pit	ceramic / faunal remains	Arauquinoid ?
LU5	234	posthole	ceramic / faunal remains	Arauquinoid ?
LU5	235	posthole	ceramic / faunal remains	Arauquinoid ?
LU5	236	pit ?	--	?
LU5	240	posthole ?	--	Arauquinoid ?
LU5	244	primary ? burial	not excavated	Arauquinoid ?
LU5	245	posthole	ceramic / faunal remains	Arauquinoid ?
LU5	248	posthole	ceramic / faunal remains	Arauquinoid ?
LU5	250	posthole ?	ceramic / faunal remains	Arauquinoid ?
SU7	251	primary ? burial	not excavated	Saladoid / Palo Seco
LU5	252	midden deposit ?	ceramic / stone / faunal remains	Saladoid / Palo Seco
LU5	253	midden deposit ?	ceramic /stone / faunal remains	Saladoid / Palo Seco

Fig 3. List of all features found during the 2006 fieldwork

All features coincide with the anthrosol layer, which was determined at this habitation spot in 2001. They were found at a depth ranging between 25 and 30 cm below present day surface level. A considerable number of features yielded ceramic sherds with diagnostic (visible by eyesight) characteristics, which made it possible to present a (relatively) date for these features.
These 20 features can be divided into four categories: postholes, pits, burials and midden deposits. A feature plan drawing is presented in figure 4.

1. *Postholes (13)*
   All these posts have a depth ranging between 15 cm and 40 cm and have diameters between 10 cm and 20 cm. The fill of these features consists of dark greyish-brown clayish sand (anthrosol) containing a variable quantity of fragmented shell and ceramic, bone, stone or lithic material. The majority of these postholes were recognised as side-posts of Structure D (F227, F228, F229, F234, F235, F250, F245). The other postholes are possible related to this structure, however it is unknown what their function was. Only posthole F248 can be attributed to the oval-shaped arc of postholes, which is surrounding this structure on the western side.

2. *Pits (2)*
   Both pits are shallow and associated with Structure D. What the function of these pits was, is unknown.

3. *Midden deposits (2)*
   Midden material was found as a thin layer just on top of the feature level. Most of this material can be interpreted as post-depositional wash-off from midden deposits in the near surroundings. On the eastern (F252) and western side (F253) of the wall posts of Structure D this deposit was somewhat thicker, more cemented and yielded larger *chip chip* shells. Possible these layers represent the lower levels of original midden deposits that were situated here. The western deposit is probably a continuation of the Palo Seco midden deposit F137. Some features, wallposts and burial F224, seen to protrude this midden. Artefacts from this midden indicate that these date from the Saladoid Late Palo Seco period.

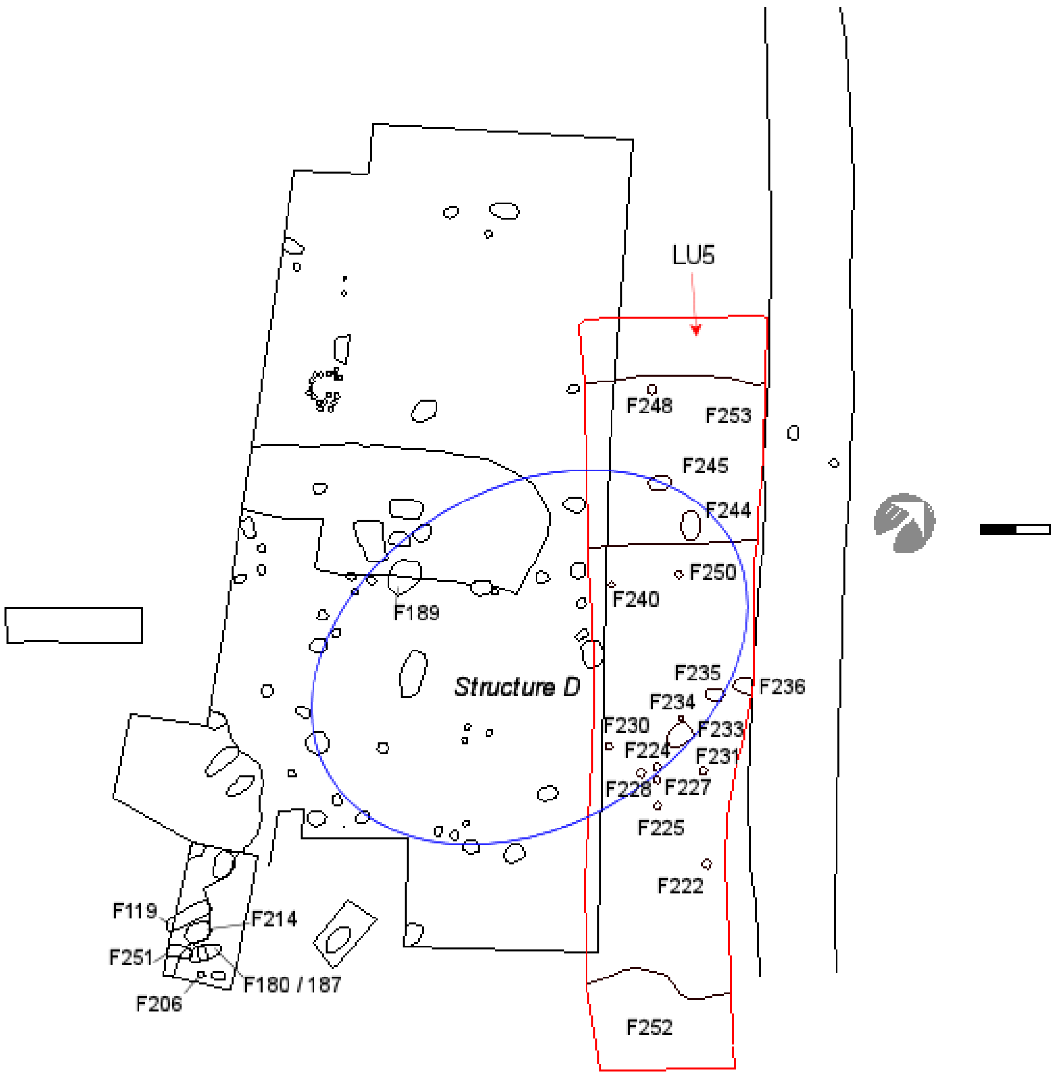

Fig 4. Feature plan of all features found during the 2006 fieldwork, scalebar: 2 meters

4. *Burials (7)*

Four of these burials (F119, F180, F187, F189) were already known, but excavated this year. Three new burial were found this year. These are F214, F244 and F251, of which only F214 was excavated this year. The inhumation F244 was located just outside the wall of Structure D (Fig. 4). Burial F251, which was located in SU7, is located in the Palo Seco midden deposit F123 (Dorst et al., 2005).

Methods

The burials are excavated in horizontal levels. When required, for example in cases when bone material is positioned vertically, this strategy is adjusted to the circumstances. During the excavation physical anthropological observations, which may held indications of sex and age determination, possible pathological indications and burial processes, were instantly noted (Maat, 1995). All the different levels of the excavated burials are photographed and drawn on a 1:5 scale and fixed in a local grid. Altitude points are measured from the surface and bottom of the feature and bone locations where possible and useful. After documentation of the height of the specific level, the bones have been recovered, washed, preserved and labelled individually. Morphological sex determination was based on characteristics of the pelvis and the skull (Acsádi & Nemeskéri, 1970 and Workshop of European Anthropologists, 1980). Skeletal age determination for nonadults was based on 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). During the fieldwork the age of adults was based on toothwear (Brothwell, 1981). The dental status was recorded (Brothwell, 1981 and Bouts & Pot, 1989) and pathological indications described (Ortner and Putschar, 1985, Roberts and Manchester, 1995 and Rogers and Waldron, 1995).

Results

Four burials (F119, F214, F187 / 180 and F251) were associated with the Late Palo Seco midden F137. All are found partly in and below this midden. These inhumations are probably associated with each other. They were located directly next to and partly on top of each other and had the same north-south orientation, with the head-end in a northern direction (Fig. 5).

F119

The individual F119 was buried in a dorsal extended position. The burial pit can be seen as a light brown pit in the midden. The hands were crossed and located near the pelvic area (Fig. 5). This was probably a male. A part of the upper, right leg bone is missing, which is likely the result of a posthole that was dug through this burial.

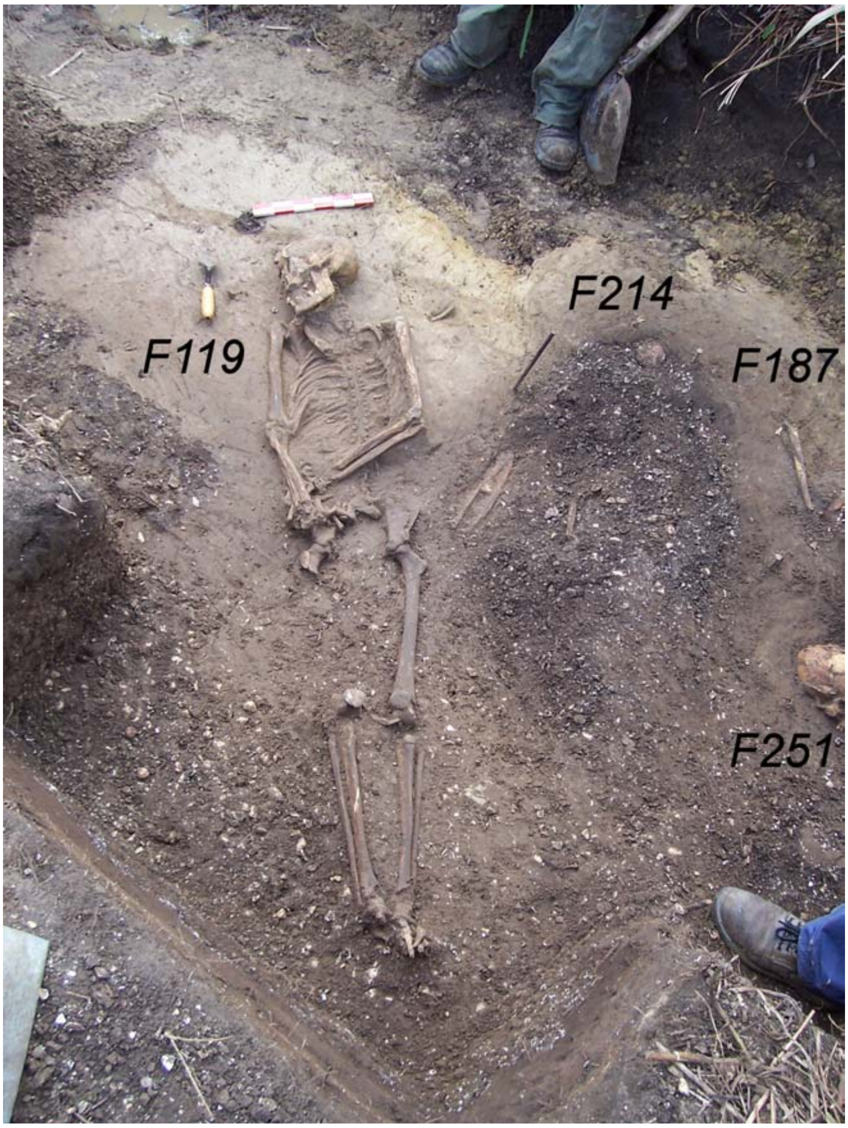

Fig 5. Burial F119, with to the right F214, F187 / 180 and the cranium of F251

F187 / 180

These burials were already partly excavated in 2004 (Dorst et al, 2005). It was recognized as an Arauquinoid burial, however, based on some new evidence it is now suggested to date from the Saladoid period. Burial F187 was a primary inhumed individual who was also lying extended on the back with the hands crossed in the pelvic area. On top of the pelvic bones was a secondary deposition of two crania, mandibles and long bones (F180). In figure 6 the primary burial F187 is shown. The cranium was already removed in 2004, while some bones of the secondary bundle are still present at this level. The right leg bones of the primary burial F187 were moved to create some space for a later inhumed individual. The cranium of this burial (F251) was drawn, photographed, and covered again.

Ages and sex of both the primary and secondary burial will be determined in Holland in the coming months.

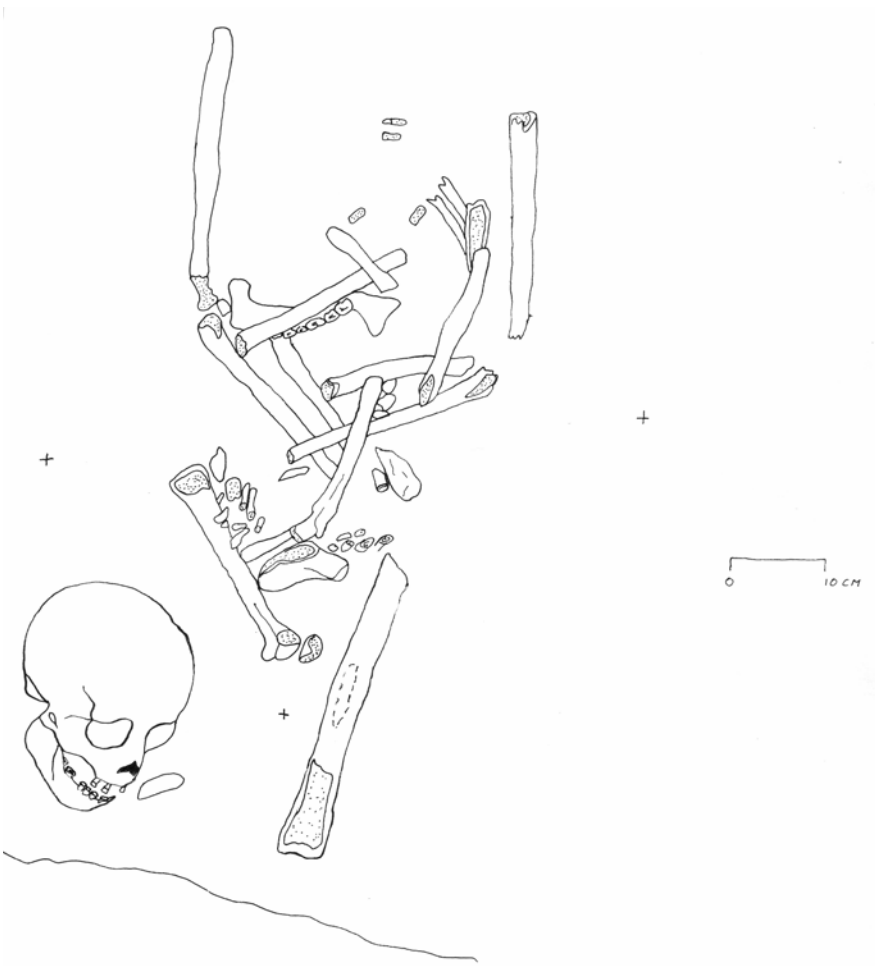

Fig 5. Second level of burial F187 and F180. On the lower right side is the cranium of inhumation F251

F214

The individual of burial F214 was buried in a flexed position. At a certain point after this person was inhumed, the burial pit was reopened, and some bones were taken out of the pit. Strangely, only bones from the right side were removed. Also the cranium was missing, however some parts of a cranium were found elsewhere in the burial pit (Fig. 7). Sex and age traits of this individual were determined, but to be certain some bones (which were taken back to Holland) will be re-examined.

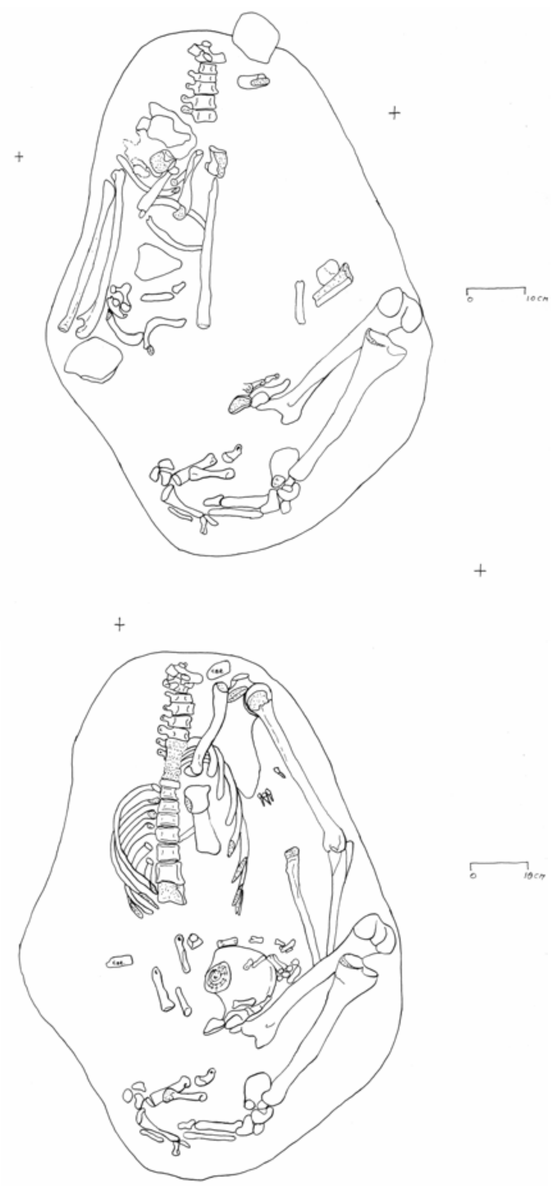

Fig 7. Burial F214; above level 1 and below level 2. Some bones of level 1 were re-drawn in level 2 for orientation.

F189

Burial F189 was located within the inner space of Structure D, next to the, in a wall posthole, inhumed child with the shell pendant (F197) (Dorst et al, 2005). Burial F189 was found in 2004, but left unexcavated. It was an interesting primary inhumation of a sub-adult (± 11 years old), which was buried with a bundle of long bones and the cranium of an adult. This bundle consisted of the leg bones which were placed in the burial pit before the primary inhumed sub-adult. This can be concluded because the left arm bones of the child are located on top of this bundle. Next to the knee area of this child was a cranium of an adult, possible a female, placed (Fig. 8 and 9). The burial is associated with the (supposed) Arauquinoid Structure D.

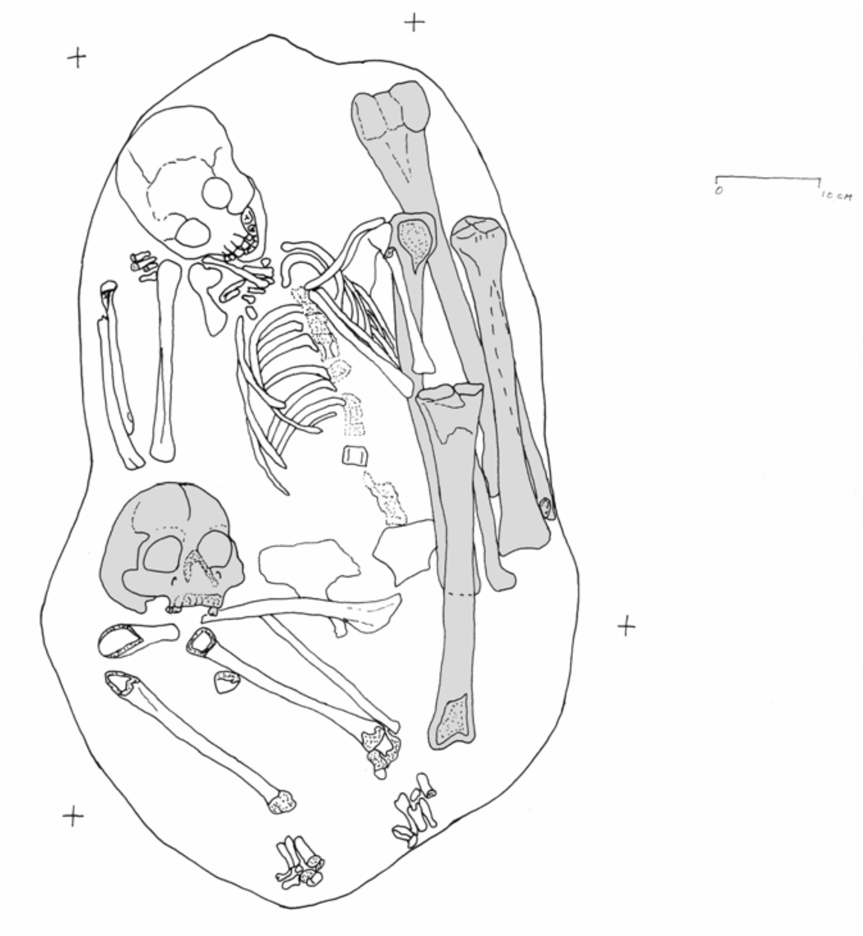

Fig 8. Burial F189: an inhumed sub-adult, the bones of the secondary burial of an adult are marked in grey

Fig 9. Burial F189; a primary inhumation of a sub-adult with the leg bones and cranium of an, possible female, adult individual.

F244
Burial F244 is a, possible, primary burial which was found in the midden deposit layer F253 in Large Unit 5. It was located just outside Structure D and is associated with this structure. The top of the cranium was slightly damaged by the backhoe. After its location was measured and drawn, it was covered again.

5.2 Material categories, ceramics, stone and faunal remains
The following artefacts and ecofacts were found: ceramics, stone tools and faunal remains. The final analysis of the various material categories is still in progress, so no substantial information can be presented here.

- Ceramic
  Ceramic was found in Large Unit 5 during working with the backhoe, in the midden deposits, in the feature fills of postholes and in the burial pits of the burials in SU 6 and SU 7. The majority can be dated in the Saladoid period, i.e. the Late Palo Seco complex, AD 300 – AD 650. Arauquinoid pottery (AD 650 – AD 1400) was found in lower quantities. However, since this pottery is not easily recognized at the SAN 1 site, absolute numbers can be presented only after analysis. Potteries of the Saladoid period include flanged lips, incised sherds, simple and complex modelling such as nubbins, "slid eyes" and adornos. Of some sherds a more or less complete vessel profile could be drawn. Among these is a, for the SAN 1 site, new vessel type. This is a legged, oval-shaped bowl with incised circles and red slib on the outer shoulder. Most likely it represents some kind of animal. Another vessel is a bowl with incision and red slib. Both are presented in figure 10.

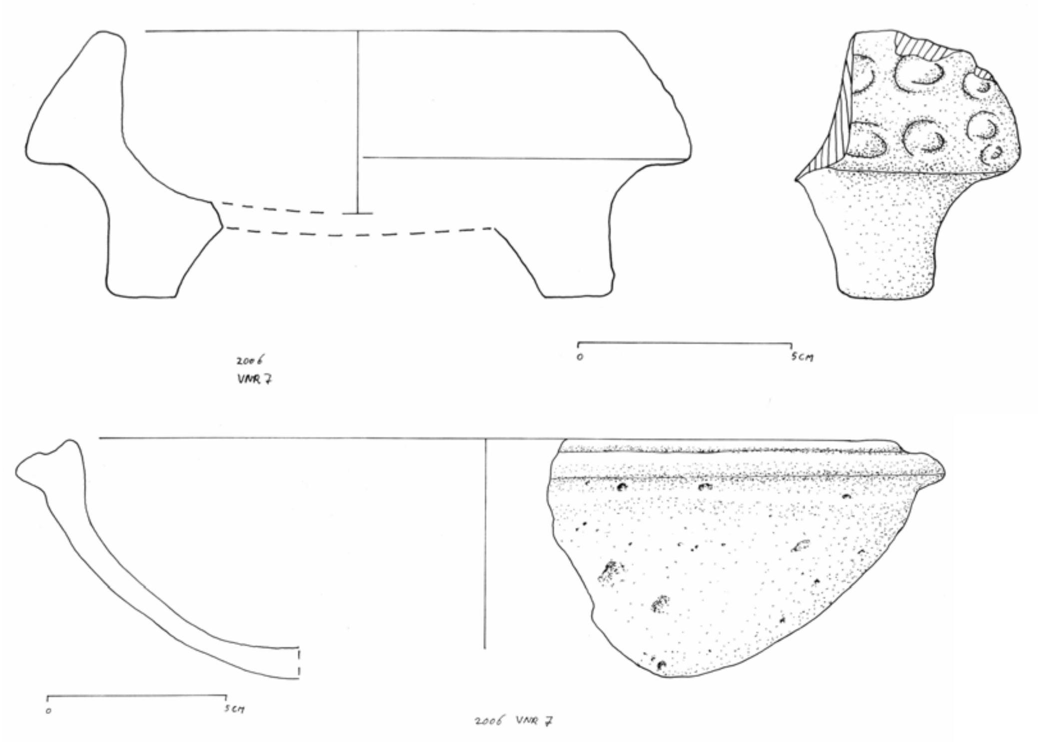

Fig 10. Examples of some SAN 1 vessel types found in 2006

Furthermore, a very special sherd must be mentioned. This is a rim sherd of a bottle which is decorated with red slib and an anthropomorphic adorno and has a simple handle (Fig. 11). Based on the gritty fabric and stylistic characteristics of the adorno, this probably represents a Barrancoid vessel, i.e. an Erin Form 12; a double-spout-and-bridge bottle (Boomert, pers. communication, Boomert, 2000:208. Fig. 49). It is a rare vessel form, which, up till now, has only been found at sites on Trinidad's south-western shores; at Icacos, Erin and Quinam.

Fig 11. A probable example of a T&T Erin form 12; double-spout-and-bridge bottle from the SAN 1 site, 2006

- Stone

  Several stone tools were found, all in the midden deposit layers in Large Unit 5, F252 and F253. These include some small percussors and two small, stone axes. One of these, made of metamorphic rock, is presented in figure 12.

Fig 12. Small stone axe from midden deposit F252, SAN I site, 2006

A strange, worked piece of soft, very coarse grained sandstone was found 'face-down' at the bottom of posthole F228. It has a three-pointed shape, with a smooth top and two round, central pits (Fig. 13). It was broken and the lower part is missing. It is unclear what this object was used for; this sandstone is too soft to be used for hammering, such as cracking nuts. Maybe it was used as 'sand-paper' for smoothing wooden objects. Another option is that it represents a part of a sculpted figurine, which was buried for some purpose in this posthole. This suggestion is possible supported by the presence of a broad, smoothed incision below the left pit (marked by the red arrow). These pits could represent eyes or eye sockets.

Fig 13. Worked stone object found in posthole F228. The red arrow marks a broad, incision. SAN I site, 2006

- Faunal remains
  Faunal remains were mainly collected from the feature fills of the postholes of Structure D. These samples were taken back to Holland for analysis.

5.3 Spatial lay-out of the SAN 1 site

The complete layout of Structure D is now known. Seven new wall posts of this structure were found. In total the number of side posts for this structure comes to 22, and it had two centre posts.
It was oval-shaped measuring some 14 meters in length and nine meters in width. Surrounding this structure an arc of posts was present on the western side.
About the date of this structure some questions have risen. It was suggested that it dates from the Arauquinoid period. However, the Saladoid midden deposit / layer (documented as features F123, F137, F253 and F152) appears to be associated with this structure; it closely encircles it. Some postholes of Structure D appear to be dug trough this midden. However, if the refuse was dumped directly outside the house, it is also possible that this midden material accumulated around these posts, while the structure was in use. This midden yielded mainly Saladoid ceramics. Also several, imported stone axes, also associated with the Saladoid period, were found in this midden. Furthermore, these axes are associated with a restricted part of this midden, namely the refuse deposits on the northern and north-eastern side of this structure. Five, large stone axes were found in Large Unit 1 (Dorst et al, 2003) and now two, smaller ones in 2006. Now the complete layout of Structure D is known, it shows that all axes were located in the refuse deposits that surrounded this house on the northern and north-eastern side. The presence of high energy investment, and suggested prestige, items such as zemis, items of semi-precious stone and exotic stone axes in Saladoid middens is known from a number of Caribbean sites, such as Hacienda Grande (Puerto Rico), Sorcé (Vieques), Tutu (St. Thomas) and Trants (Montserrat). This is explained by several scholars as a result from ritual deposition which is related to feasting and specific ceremonies such as mortuary ceremonies, since these personal items are hardly ever found as burial gifts (Siegel 1992, Boomert 1999, Righter 2003).
Furthermore, the only reference for the shell pendant representing a jaguar tooth, which was found as a mortuary gift for a child buried in one of the postholes of this structure, dates from the Saladoid period. Imitation jaguar teeth, made from manatee bone and conch shell, were found in Saladoid middens of the Sorcé site in Vieques (Naranges Storde 2003).
So, there is some evidence that Structure D dates from the Saladoid period, but without C14 dates this remains uncertain. Also the distinction between extended Saladoid burials and flexed Arauquinoid burials is still doubtful. Some human bone samples will be dated by Trent University in the summer of 2006. Hopefully these results will solve this ‘date’ problem.

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