

SUMMARY

The present thesis is the outcome of a PhD study that was carried out between 1997 and 2003 at Leiden University (The Netherlands). It focuses on pre-Columbian social organisation and interaction in a micro-region in the Lesser Antilles, comprising the Pointe des Châteaux peninsula and the islands of La Désirade and Petite Terre (Guadeloupe). It investigates what information can be obtained on pre-Columbian social organisation and interaction through intensive and systematic study of this micro-region, instead of focusing on the study of large and well investigated settlement sites exclusively, as is common practice in Caribbean archaeology. Very little attention has traditionally been paid to site function differentiation and to pre-Columbian use of other types of sites other than permanent settlements. It is thought that without a detailed insight into processes related to pre-Columbian social organisation and interaction on a micro-regional scale, it is impossible to properly understand these processes on a larger, regional scale. Therefore, the present study aimed at creating detailed site inventories, based on systematic surveys covering a complete micro-region, in order to be able to obtain a more accurate understanding of social organisation and of local and micro-regional contacts. Four research objectives were formulated: (1) to collect information on the past and present physical landscape of the micro-region, (2) to create reliable archaeological databases by means of intensive surveys, (3) to obtain information on (micro-)regional socio-political, economic and ceremonial organisation and interaction, and (4) to compare this information to archaeological data from Guadeloupe and other Lesser Antillean islands. As a starting-point, it was deemed that pre-Columbian social organisation in a micro-regional perspective would be best understood through the analysis of site patterns, providing dynamic overviews through time (chapter 1).

The required archaeological databases, in the form of site inventories, were created through intensive and systematic surface surveys. These are a reliable means of attaining region-wide and diachronic archaeological information. Systematic archaeological surveys with well-defined areas and strategies have generally been scarce in the Caribbean. The focus of the survey was the recovery of archaeological sites. Although site definitions are often rather vague interpretations, possibilities for a regional non-site study were too limited within the study area. The most important limitation is the fact that it is hard to make chronological assignments for off-site material as it is often heavily eroded and fragmented and the percentage of

decoration is generally small. Moreover, the study specifically demands information on longer-term processes and resulting accumulations of material. Finally, concentrations within the surface material, bordered by empty areas could be clearly distinguished in the research area. Off-site data are used as merely complementary to the site data collected. The surveys should serve three goals. First, the surveys should provide a site inventory, including all types, functions, locations and periods of sites. Secondly, they should produce detailed site descriptions, in order to better understand spatial artefact distributions, geological and archaeological stratigraphies, site functions, and chronological assignments. Thirdly, it should be possible to estimate the accuracy of the inventory. In addition, the surveys contributed significantly to the *Carte Archéologique* project of the archaeological service on Guadeloupe, which aims at the completion of the archaeological heritage inventory of Guadeloupe.

The surveys included an intensive field-walking program. Parallel 1 m wide transects, separated by 10 or 20 m intervals, were investigated. Interval surfaces were randomly checked to see if archaeological material had been missed. Steep slopes were not included in the survey. The transects were compass-oriented north-south all over the study area. Transect surfaces were cleared with machetes in order to optimise observation. Sandy beaches were surveyed several times and in different weather conditions. Collections of diagnostic material from all discovered concentrations of archaeological material were made in the field. In addition, off-site material was collected. Off-site material and surface concentrations of archaeological material were mapped on aerial photographs (scale 1:5000). Sites – consisting of one or more surface concentrations – were described using forms. The Pointe des Châteaux study area as well as Terre de Haut (Petite Terre) were completely surveyed using 10 m intervals. As the survey results did not justify continuation of this time-consuming approach, intervals were set at 20 m on La Désirade and Terre de Bas (Petite Terre). The latter islands could not be surveyed completely in an intensive and systematic manner due to the large dimensions of La Désirade and the extremely dense vegetation at Terre de Bas.

Several sites were selected for sub-surface testing. The excavation of (series of) north-south oriented 1 m² test units was aimed at the collection of information on geological and archaeological stratigraphies and on site formation and deformation processes as well as collection of a sample of diagnostic archaeological material that could help to provide a chronological and cultural context. Test unit locations were

randomly chosen in areas with relatively dense archaeological deposits and were positioned with sub-decimetres precision using relative GPS (Global Positioning System) measurements and infrared theodolite. The units were excavated in 10 cm arbitrary levels, taking geological and archaeological layers into account, until the bedrock was reached. Archaeological material was hand-sorted from 2/5 inch dry sieve residues – although some site samples were wet-sieved over 1 or 2 mm screens. Additional sub-surface information was provided through auger testing of some of the sites and the sandy beaches of Pointe des Châteaux (chapter 2).

In order to evaluate the conditions for fieldwork and site survival, the present physical landscape of the research area is described. In addition, an attempt is made to describe the environment in pre-Columbian times, in order to evaluate conditions for Amerindian settlement.

Pointe des Châteaux, which is the easternmost tip of Grande-Terre (Guadeloupe), is approximately nine kilometres long and 50 m to 2.5 km wide. The study area covers the eastern seven kilometres. Pointe des Châteaux is a calcareous plateau, which is intersected in its western part by a large, flat-bottomed valley. Today, more than 50% of the northern coast consists of beaches with dunes and beach-rock formation processes are common. The southern coast consists of uplifted reefs and beaches without dunes. Nowadays, Pointe des Châteaux is characterised by the presence of small, natural water basins and seven salinas. La Désirade, situated 12 km east of Pointe des Châteaux, is an 11 km long and two kilometres wide calcareous table mountain that has a volcanic substratum. Characteristic features are the more than 200 m high (uninhabited) limestone plateau, the inaccessible north coast and the presence of caves and of suitable, albeit low-quality, rock for the manufacture of stone tools. The islands of Petite Terre (Terre de Haut and Terre de Bas) are situated 12 km south of La Désirade and 7.5 km south-east of Pointe des Châteaux. Nowadays, Terre de Bas (2.5 km by 600 m) and Terre de Haut (1.1 km by 200-300 m) are a nature reserve. The islands, which originally consisted of one flat, elevated coral plateau, are separated by a 150 m wide channel. Characteristic features are the reefs that almost completely enclose the islands, the dynamic dune formations and salinas.

Local relief and vegetation in the research area made the fieldwork very uncomfortable, but they did not hinder systematic surface surveys. Sedimentation is quite modest and it is suspected that mud streams or landslides, which would have covered archaeological sites, did not take place. Conditions for the survival of coastal sites are less favourable, however, as a result of coastal erosion and beach-rock formation processes. In addition, dune

formations along the northern coasts of Terre de Bas and of Pointe des Châteaux may cover archaeological deposits. Inland sites will be better preserved although they may have been damaged by human action, and, if situated at the edge of La Désirade's plateau, by erosion.

Although the study area is situated in the driest and warmest part of Guadeloupe, local conditions were probably favourable for pre-Columbian settlement. The area is characterised by large stretches of flat terrain suitable for habitation, small-scale horticulture and food gathering, and by small bays protected by coral reef barriers. Marine food resources are easily and widely available. Terrestrial fauna appears to be only moderately abundant and diverse. Fresh water was available, although its collection would have demanded some effort. Various shell and coral species, lithics and *Gaiac* wood, which may have served raw material demands for tools and ornaments, were present as well. It is not clear where wood used to fashion dug-out canoes and construct houses was obtained, as large trees are only present in the La Désirade ravines, nowadays. A less positive aspect for pre-Columbian settlement in the study area is the almost annual passage of hurricanes. It is possible that caves at La Désirade were used for shelter during such events (chapter 3).

On the basis of a general overview of the cultural chronological framework for the research area and its surroundings, covering the pre-Columbian, the colonial and the recent period, expectations are formulated on pre-Columbian site occurrences in the study area. First, pre-ceramic sites, Huecan and Cedrosan Saladoid sites as well as sites yielding Troumassan and Suazan Troumassoid material and/or Mamoran Troumassoid and Ostionoid features might be expected to be present in the study area.

Secondly, large parts of the research area will be superficially disturbed as a result of intensive cultivation of cotton, sugarcane and indigo during colonial times. Disturbance as a result of colonial habitation occurs in more limited areas, but causes a more radical destruction of the archaeological record. Amerindian sites dating from the European contact period might be expected as well, as a Carib territory and a small Carib habitation were located at Pointe des Châteaux. The native inhabitants of Guadeloupe lived here until the end of the nineteenth century or the beginning of the twentieth century.

Thirdly, archaeological sites are nowadays damaged by tourists, camping in the dunes of Pointe des Châteaux and Petite Terre, and constructions, illegal excavation and sand pillage cause even more serious disturbances. Recent cultivation hardly affects the archaeological record (chapter 4).

After having described the expectations on the presence of archaeological sites in the research area, the actual survey results are presented and the accuracy of the fieldwork is evaluated. The surveys successfully provided reliable inventories of pre-Columbian sites in the selected micro-region (appendices 2-4). Large parts of different geological and ecological zones have been investigated, and a large number of pre-Columbian sites, with various functions, locations and chronological assignments, have been discovered. Notwithstanding the use of the intensive systematic survey technique, several factors may have affected the observation and collection of site and off-site material, thus leading to a biased site record. These factors are related to the intensity and the method of surface observation, the use of surface material, the characteristics of the archaeological material, personal observation of the survey crews, environmental factors and natural and cultural post-depositional processes. In addition, the excavation of small test units involves certain biases as well. The attempt to keep the influence of these factors to a minimum is described, as is the result of this attempt.

The identification of different site types, using site parameters including site location, site dimensions, site area, site function, duration of use or occupation and chronological assignment, is subsequently described. The surveys demonstrated shortcomings in the understanding of marginal site types, labelled indistinct sites in this study, characterised by modest distributions of fragmented ceramics mainly occurring on the surface. Although barely documented in earlier studies in the Caribbean they represent an important component of the Eastern Guadeloupe site inventories and it is thought that they must be present in other areas and on other islands too.

Finally, the archaeological sites of the research area are presented. On Pointe des Châteaux a total of 21 sites were found. Most of the sites, 16 in total, were deemed Late Ceramic A (AD 600/850-1200/1300), three others could be assigned to the Early Ceramic B (AD 400-600/850) and two sites are multi-component. The sites on Pointe des Châteaux include 11 large habitation sites, which yield typical habitation refuse and generally have site locations that are well accessible from the sea and have good exploitation potential and observation facilities. The sites have a settlement function primarily, but ceremonial or other special activities may have been carried out as well. In addition, a small strategic outpost was found on a protruding plateau dominating the northern coast of the peninsula. It consists of a small and probably shallow distribution of pottery, coral and shellfish remains. Furthermore, nine indistinct sites, consisting of small and probably shallow distributions of fragmented and weathered ceramics were found. Six of these sites, providing indications for food preparation on the spot,

have been tentatively labelled temporary habitation sites that were probably used by a small group of people. The three other sites may have been related to gardening activities.

The La Désirade site inventory consists of 43 sites. A total of 33 sites was assigned to the Late Ceramic A. One Early Ceramic B site, two Late Ceramic B (AD 1200/1300-1493) sites, and one multi-component site were found as well. For six sites the period of use could not be identified. The La Désirade sites include 11 large habitation sites, generally situated on a flat terrain near soils that are suitable for small-scale horticulture and close to reefs and canoe landing-spots. The sites yield typical habitation refuse; some habitation sites probably served ceremonial or other special activity functions as well. Morne Cybèle-1 and Morne Souffleur are the most remarkable habitation sites. The sites occupy spectacular locations on the southern edge of the plateau. The archaeological material consists of Morne Cybèle style pottery and both sites yielded a shell mask. In addition, four shallow lithic workshops were found, where simple, mostly *ad-hoc*, artefacts of local raw materials were made. No settlement refuse was found. Subsequently, two ceremonial sites were identified: the sites of Chemin de M. De l'Orme (a deliberate deposition of a small pelican-vessel, which functioned as a container for a small stone axe and adze of St. Martin chert) and the cave site of Voûte à Pin. Finally, 26 sites – shallow and dispersed distributions of fragmented and weathered ceramics – have been listed as indistinct sites. Eight of these sites probably functioned as temporary habitation areas or campsites. A total of 14 indistinct sites, lacking evidence of food preparation, may reflect gardening activities. Four indistinct sites are small cave sites that may have been used for shelter.

The Petite Terre site inventory comprises five large Late Ceramic A habitation sites with attractive locations, being situated on flat areas, near canoe landing-spots, reefs and good soils. The sites yield typical habitation refuse, but ceremonial or other special activities probably also took place at some of the sites. Two Late Ceramic A indistinct sites – small and shallow distributions of fragmented and weathered ceramics and shell fragments – were found as well. **These sites are probably satellite sites of habitation sites on Pointe des Châteaux or La Désirade (chapter 5).**

Reviewing the site data for Pointe des Châteaux, La Désirade and Petite Terre, micro-regional overviews are presented for each pre-Columbian occupation period. These overviews include descriptions of settlement patterns, settlement structures, settlement territories and hierarchies, and inter-settlement contacts.

The pre-ceramic period and the Early Ceramic A (2000 BC - 400 AD) are hypothetically labelled pioneer

phases as no evidence for habitation prior to the Early Ceramic B was found. Although the option that there simply were no pre-ceramic and Early Ceramic A sites in the micro-region should be considered, such sites, once present in coastal areas, may by now have been eroded or covered.

The first occupation of the micro-region took place during the Early Ceramic B period (AD 400-600/850). People lived in six large permanent coastal settlements on Pointe des Châteaux and La Désirade, most of which were located on flat areas close to fresh water sources, easily accessible bays, reefs, salinas and good soils. Petite Terre was uninhabited. Rich subsistence and non-subsistence resources in the vicinity allowed villages to be independent. The inhabitants practised a mixed and broad-spectrum economy, focusing on root crop horticulture, hunting of land animals, fishing, catching birds and collecting molluscs, fruits, wild tubers and seeds. They used their villages for most socio-political, economic and ceremonial activities; they apparently did not establish special places away from the settlements although it is possible that special activity sites, e.g. for harvesting shellfish, were located along the coasts, though now destroyed by erosion. The villages were dispersed and evenly distributed along the coasts of Pointe des Châteaux and La Désirade and had equally spaced territories. The presence of one temporary habitation site or a campsite on Pointe des Châteaux suggests that people from villages outside Eastern Guadeloupe may have exploited resources within this micro-region and that access to settlement territories was probably not restricted. No evidence has been found for the existence of settlement hierarchy, although Anse à la Gourde and Les Sables were probably the most prominent villages. Inhabitants of the Early Ceramic B villages apparently maintained long-distance contact networks stretching as far as their South-American homeland. The inhabitants of Anse à la Gourde and Les Sables obtained rocks from Martinique, Basse-Terre and Antigua for the manufacture of lithic artefacts and procured finished green chert tools directly from the inhabitants of production sites on St. Martin. Most lithic artefacts in Eastern Guadeloupe, however, were manufactured from rock types that were available within the micro-region (for example at La Désirade).

The number of villages increased during the Late Ceramic A, especially after AD 1000. The site pattern of this period consists of 22 habitation sites, two ceremonial sites, one strategic outpost and 34 indistinct sites. Occupation of the micro-region, which was still concentrated in large permanent villages, was consolidated and intensified. It is possible that the population grew, but settlements may also have been inhabited for shorter periods and they possibly moved from time to time. Inhabitants of villages of increasing size may also have decided to split up and found new, smaller,

economically independent settlements, effectively filling up the open spaces within the landscape. Petite Terre was now settled and exploited as well. Inter-settlement distances and territories were smaller as compared to the preceding period. Most settlements probably had territories of roughly similar size, resulting in a balanced use of subsistence resources in the direct environs of the villages. Although most settlements were still situated along the coast, some La Désirade villages were located inland and proximity of fresh water was rarer when compared to the Early Ceramic B. People continued to practise a mixed economy of root crop horticulture, hunting of land animals, fishing, catching birds and collecting molluscs, fruits, wild tubers and seeds, and they still exploited zones near the settlements. Site type diversity increased and greater parts of the landscape were used for ceremonial, socio-political and economic activities. The landscape was used more intensively. Special ceremonial sites were established (Voûte à Pin and Chemin de M. De l'Orme), as well as temporary camps and sites related to gardening activities and to the exploitation of natural resources outside the villages, and caves were used for shelter. Anse à la Gourde evolved into a central settlement and particularly its burial area probably had a central ceremonial function in the micro-region. Social differentiation began to play a role and incipient social stratification developed. Long distance contacts, stretching as far as the South American mainland and the Greater Antilles, continued to exist, although they appear to be less frequent than during the Early Ceramic B. The inhabitants of Anse à la Gourde played a central role in these networks. The inhabitants of À l'Escalier and Site Du Phare also participated in contact networks in which finished green chert artefacts circulated. Local groups were clearly involved in frequent and intensive short distance contacts as well. In addition, trips to La Désirade were still undertaken as well.

During the Late Ceramic B period (AD 1200/1300-1493), the Eastern Guadeloupe micro-region became desolate: only three small villages were inhabited during the latest part of the pre-Columbian period. **These were Anse à la Gourde on Pointe des Châteaux and Morne Cybèle-1 and Morne Souffleur on La Désirade. This depopulation was** probably an effect of the influence of developing *cacicazgos* on the Greater Antilles, attracting people from the Lesser Antilles because of the greater social opportunities. The Late Ceramic A population increase – and possibly a related decline in the availability of food resources – may have provoked socio-political dissatisfaction and made people susceptible to the attractions of complex social societies on the Greater Antilles. The inhabitants of Morne Cybèle-1 and Morne Souffleur established villages in impressive and well-defensible locations on the La Désirade plateau. They

therefore had to cover a distance equivalent to at least one hour's walk in order to exploit coastal resources, which they continued using. Another new development was reduction of site type diversity. Ritual and economic activities were once again restricted to the settlements and the landscape was apparently used less intensively. It is not clear whether Anse à la Gourde still held the central role that it had assumed during the Late Ceramic A. Interaction networks necessarily covered larger areas, to the south and the north, but local contact networks continued to exist and short distance trips, for example aimed at the procurement of La Désirade rock, were still organised (chapter 6).

SUMMARY