

6. SETTLEMENT PATTERNS, SOCIAL ORGANISATION AND INTERACTION IN A DIACHRONIC PERSPECTIVE

6.1 INTRODUCTION

Reviewing the site data that have been presented in chapter 5 and appendices 2-4 for Pointe des Châteaux, La Désirade and Petite Terre separately, micro-regional overviews are created for each pre-Columbian occupation period. These overviews include descriptions of settlement patterns, settlement structures, settlement territories and hierarchies, and inter-settlement contacts. They largely follow a diachronic schema encompassing the four main phases of the Ceramic Age and the social developments characterising each of these phases as recently proposed by Hofman and Hoogland (2004).

6.2 HYPOTHETICAL PIONEER PHASES (PRE-CERAMIC PERIOD AND EARLY CERAMIC A: 2000 BC - 400 AD)

The pre-ceramic period and the Early Ceramic A have been hypothetically labelled pioneer phases for Eastern Guadeloupe as no evidence for habitation prior to the Early Ceramic B was found. Pre-ceramic and Early Ceramic A sites have been found in other parts of Guadeloupe, however (fig. 6.1; sections 4.2.2 and 4.2.3).

Pre-ceramic sites are not expected to have gone completely unnoticed during fieldwork. One re-used pre-ceramic artefact was found at the Early Ceramic B site of Les Sables, but this artefact is a Long Island flint blade fragment, which was possibly collected on Long Island together with other flint raw materials or artefacts, during a later period.

Although pre-ceramic sites are quite rare on the Windward Islands as well, the almost complete absence of pre-ceramic sites on the large and ecologically diverse island of Guadeloupe is striking. More pre-ceramic sites have been reported for the Leeward Islands, for Antigua in particular. This cannot only be explained by the island's unique flint sources but also by its tectonic history. Part of the island has been uplifted and this is almost exactly the area where the densest concentration of pre-ceramic sites has been found. Guadeloupe does not have natural flint occurrences, but as the island is located quite close to Antigua, it can be expected that pre-Columbian inhabitants of nearby Guadeloupe could easily obtain flint as well. In addition, raw material – albeit of low quality – for the production of lithic artefacts was and still is readily available at La Désirade. This material – chert – is of sufficient quality for an expedient flake

technology but it is not suitable for blade production. Moreover, the ecologically rich environments related to the salinas and the large and shallow reefs on Pointe des Châteaux and Petite Terre will have been attractive for pre-ceramic groups. These areas, contrary to Antigua, are not uplifting but submerging instead. Most pre-ceramic sites on surrounding islands have a marine orientation, not only in the exploitation of marine resources but in the choice of site locations as well.¹ Although the option that there simply were no pre-ceramic sites in the micro-region should be considered, pre-ceramic sites, once present in coastal areas, may nowadays have been eroded or covered (Delpuech *et al.* 2001; De Waal 1999^b; *cf.* section 3.2.3).

No evidence is available for Early Ceramic A habitation in the Eastern Guadeloupe micro-region either. This is surprising since some Early Ceramic A settlements, yielding Huecan Saladoid ceramics, have been reported for other parts of Guadeloupe and it is not likely that Early Ceramic settlements, for which large dimensions have usually been reported, would have eroded completely. In view of the intensity of the surface surveys (*cf.* section 2.2.3) it is practically impossible that large surface scatters of archaeological material dating to the period before AD 400 went unnoticed in the field. It is possible, however, that Early Ceramic A settlements have been covered by later sediments, just like pre-ceramic sites.

There is evidence that people who lived at the Early Ceramic A settlement of Morel (Grande-Terre) exploited red chert sources on La Désirade (Knippenberg 2006). They were using the La Désirade lithic workshops (fig. 5.2) during an early period for which no habitation evidence has yet been found on this island.

6.3 BEGINNING OF OCCUPATION AND ESTABLISHMENT OF LOCAL CONTACT NETWORKS (EARLY CERAMIC B: AD 400-600/850)

6.3.1 Introduction

Seven Early Ceramic B sites have been discovered in the Eastern Guadeloupe micro-region, comprising six habitation sites and one indistinct site (fig. 6.2; table 5.1). Most of these sites are on Pointe des Châteaux. The surface areas of the single-component sites are large, ranging between 1 and 2

hectares.² Only one indistinct site that possibly functioned as a temporary habitation site has been discovered on Pointe des Châteaux. This inland site is much smaller than the habitation sites. Some of the undated La Désirade lithic workshops (fig. 5.2) were probably used during the Early Ceramic B period as well, since La Désirade red chert was found at Les Sables and Anse à la Gourde.

6.3.2 Settlement pattern

The beginning of Early Ceramic B habitation in the Eastern Guadeloupe micro-region was coeval with a population increase on several other Caribbean islands with Early Ceramic A habitation, including Grande-Terre, and the settling

of previously uninhabited islands. There is archaeological evidence for occupation at Pointe des Châteaux and on La Désirade, but no indications were found for temporary stays or longer-term habitation on the islands of Petite Terre.

Habitation was concentrated in large permanently inhabited villages. This is consistent with other Early Ceramic B settlements in the Lesser Antilles (e.g. Versteeg and Schinkel 1992; Watters 1994). Thick occupation layers – another typical feature of Early Ceramic B settlements – were observed only at Les Sables (table 5.1). Habitation at Les Sables appears to have been more substantial than the Pointe des Châteaux settlements, which were probably inhabited by smaller groups of people for relatively short

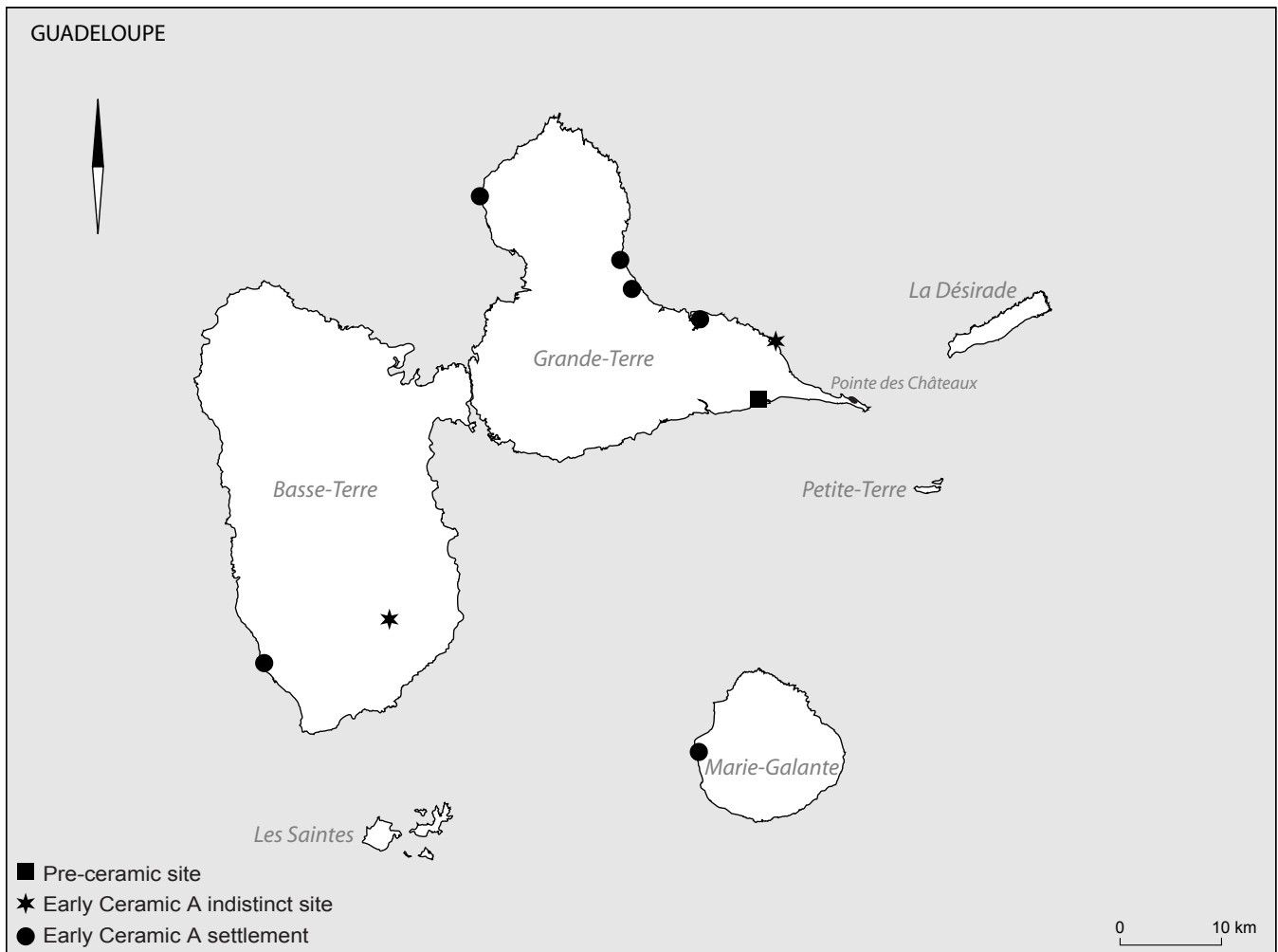


Fig. 6.1. Pre-ceramic and Early Ceramic A sites on Guadeloupe and its nearest neighbouring islands.

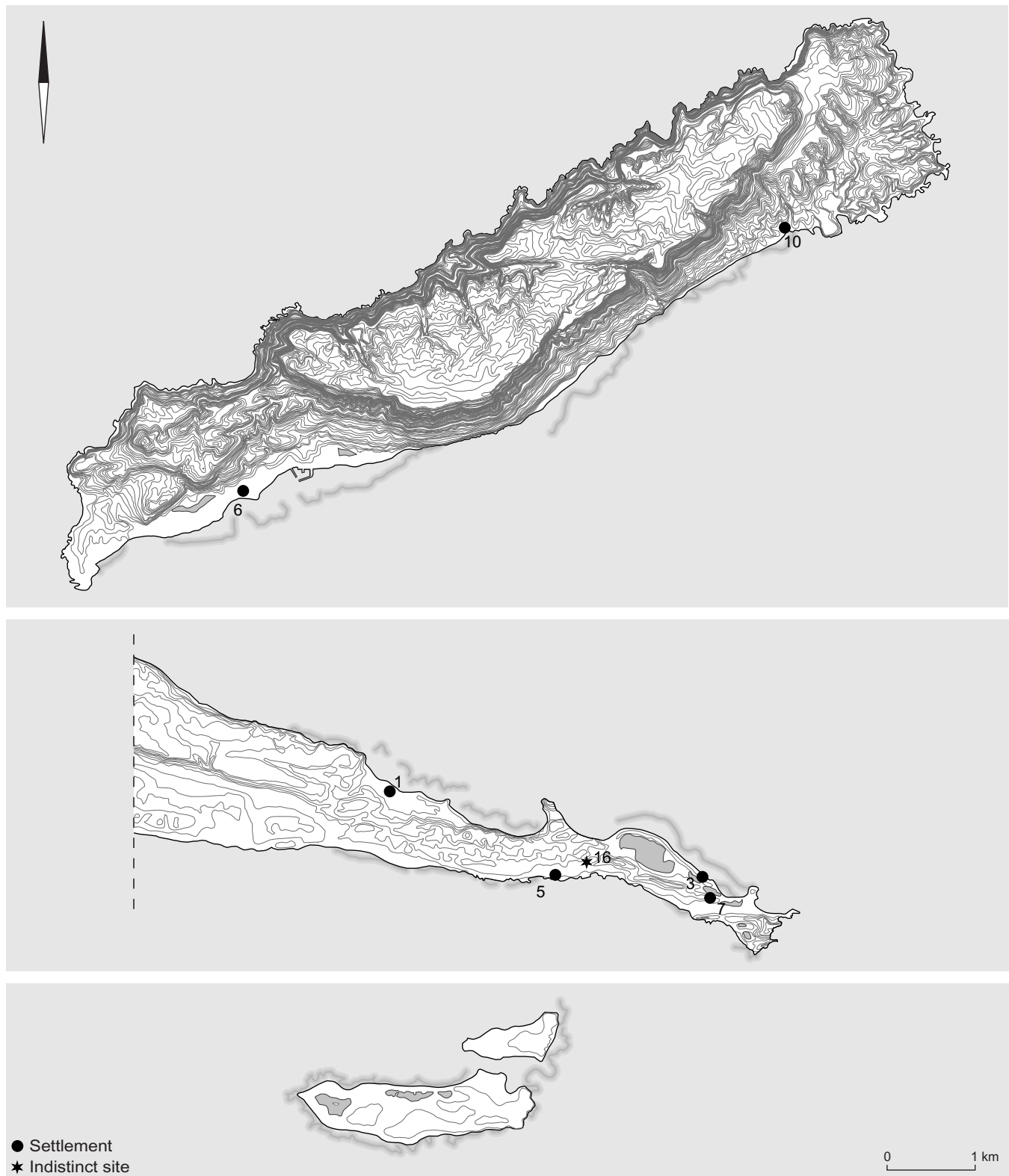


Fig. 6.2. Early Ceramic B sites in the Eastern Guadeloupe micro-region.

periods. The large dimensions of the Pointe des Châteaux settlements may be explained by the accumulation of refuse from subsequent small camps resulting in sheet trash, or low-density scatters of refuse material.³

It is unlikely that the villages in the Eastern Guadeloupe micro-region were occupied concurrently, when one regards the relatively short periods during which they were inhabited. The earliest occupation in the Eastern Guadeloupe micro-region has been documented at Petites Salines, followed by settlements at Montagne des Petites Salines and Les Sables, which, in turn, were succeeded by occupations at Anse à la Gourde, Village des Pêcheurs and Anse Petite Rivière. The thick sterile beach sand layer that separates Early Ceramic B and Late Ceramic A settlement refuse at Petites Salines suggests that this settlement was uninhabited for some time. Petites Salines possibly represents an older phase of a settlement that shifted inland to nearby Montagne des Petites Salines. Petites Salines was inhabited again during the Late Ceramic A.

Les Sables reflects most intensive occupation. The other settlements were occupied by smaller groups of people or for shorter periods, suggesting that there was some shift of settlements over the landscape. This is not true for Anse à la Gourde, which was inhabited from AD 500 until the latest part of the pre-Columbian period. The environs of this village apparently supported such a long period of occupation and its inhabitants tended to stay in one location or only moved very small distances. The mobility of this settlement ostensibly was low.

No special ceremonial sites have been identified and the discovery of only one indistinct site, possibly a temporary habitation site, and a very small quantity of off-site material suggest that most ceremonial, socio-political and economic activities were centred in or near the settlements. The settlements and their direct environs were clearly the focus of daily-life activities. The only village where indications of ceremonial activities were actually found is Anse à la Gourde, thanks to extensive excavation. The most striking feature at this settlement is a large burial area (Hoogland and Panhuysen 2001; Kraan 1998; Roetman 2003; Timmermans 2003). Use of this burial area started during the Early Ceramic B, and had its heyday in the Late Ceramic A. Ritual paraphernalia, such as three-pointed *zemis*, inlays, *spatulae* and shark-shaped and frog-shaped pendants, were found at Anse à la Gourde as well.

One site on Pointe des Châteaux may have functioned as a temporary habitation site or a campsite. The site was probably not related to one of the Pointe des Châteaux settlements. It was very close to Village des Pêcheurs, and it could also be easily reached within the hour

from the other settlements on the peninsula. Considering the wealth of subsistence resources and the limited dimensions of the area, however, it is not likely that long stay-overs in the fields or at special activity sites were needed. Most subsistence resources were present in the near surroundings of the villages. Most likely, inhabitants of villages outside the Pointe des Châteaux peninsula, probably from an ecologically different zone and attracted by the presence of the rich subsistence resources around the salinas, used the site. Only a short distance separated the temporary habitation site from Village des Pêcheurs. The former would have interfered in the territory of the latter, if the sites were contemporaneous, thus access to settlement territories was probably not restricted. This suggests certain mobility, but as only one temporary habitation site was encountered, the scale at which this occurred was probably quite modest. It is not clear whether inhabitants of villages in the Eastern Guadeloupe micro-region used similar sites in order to exploit more remote areas. It is possible, however, that special activity sites, used by inhabitants of the Eastern Guadeloupe villages, e.g. for harvesting *Strombus gigas* or *Cittarium pica*, were located at the coasts and destroyed by erosion.

The Eastern Guadeloupe settlement pattern is similar to settlement patterns on Grande-Terre as a whole, Basse-Terre, Marie-Galante and Les Saintes, which also consist of large, regularly spaced coastal villages (fig. 6.3). The spacing between the settlements on these islands, however, is greater when compared to Eastern Guadeloupe, and no indistinct or special activity sites have been recorded. Both facts can be explained by a lower intensity of surface observations. Incidentally, non-residential sites have been found in other parts of the Guadeloupe archipelago, including a special activity site near Chute du Carbet and several petroglyph sites in the petroglyph area on Basse-Terre, and the ceremonial site of Morne Rita on Marie-Galante (Slozinski and Slozinski 1983).

6.3.3 Settlement structure

Very little can be said regarding settlement structures since even at the intensively excavated Anse à la Gourde settlement, only a very small part of the Early Ceramic B settlement has been preserved due to severe coastal erosion. This includes some posthole configurations, from which no structures have been deduced, a small number of burials, charcoal patches and a crab midden (Hofman *et al.* 2001^a:49).

On a regional scale, Golden Rock on St. Eustatius is the best-documented village providing data on Early Ceramic B settlement structure in the Lesser Antilles. At Golden Rock, the remains of six roundhouses have been

found with diameters ranging from 7 to 19 m dating to AD 600-900. Smaller structures have been interpreted as special activity huts and storage or drying racks. The village layout consists of a central area with dwellings, refuse dumps, adult burials, and an area that may have been used for food processing activities, protected by windbreaks. The settlement comprised some children's burials, ceremonial caches, a rectangular structure that possibly functioned as a men's house, and a central *plaza*. The different functional areas appear to have largely remained unchanged throughout the period of occupation of the village, and this, together with the fact that houses were probably being rebuilt on the

same spot, has been taken as evidence of strong settlement continuity. Five occupation phases have been identified. Assuming that these lasted 25-50 years each, and assuming that occupation was continuous, this would amount to a total occupation span of 125-250 years. Each occupation phase had one single dwelling, although one phase had two houses. The number of inhabitants of the large structures was estimated by calculating 3 m² or 6 m² per person, and by counting the number of triangular family compartments, assuming a four-person family per compartment. Estimates of the number of inhabitants increase from 12 to 24 for the earliest phase to 35/36 to 71 for the last phase (Schinkel

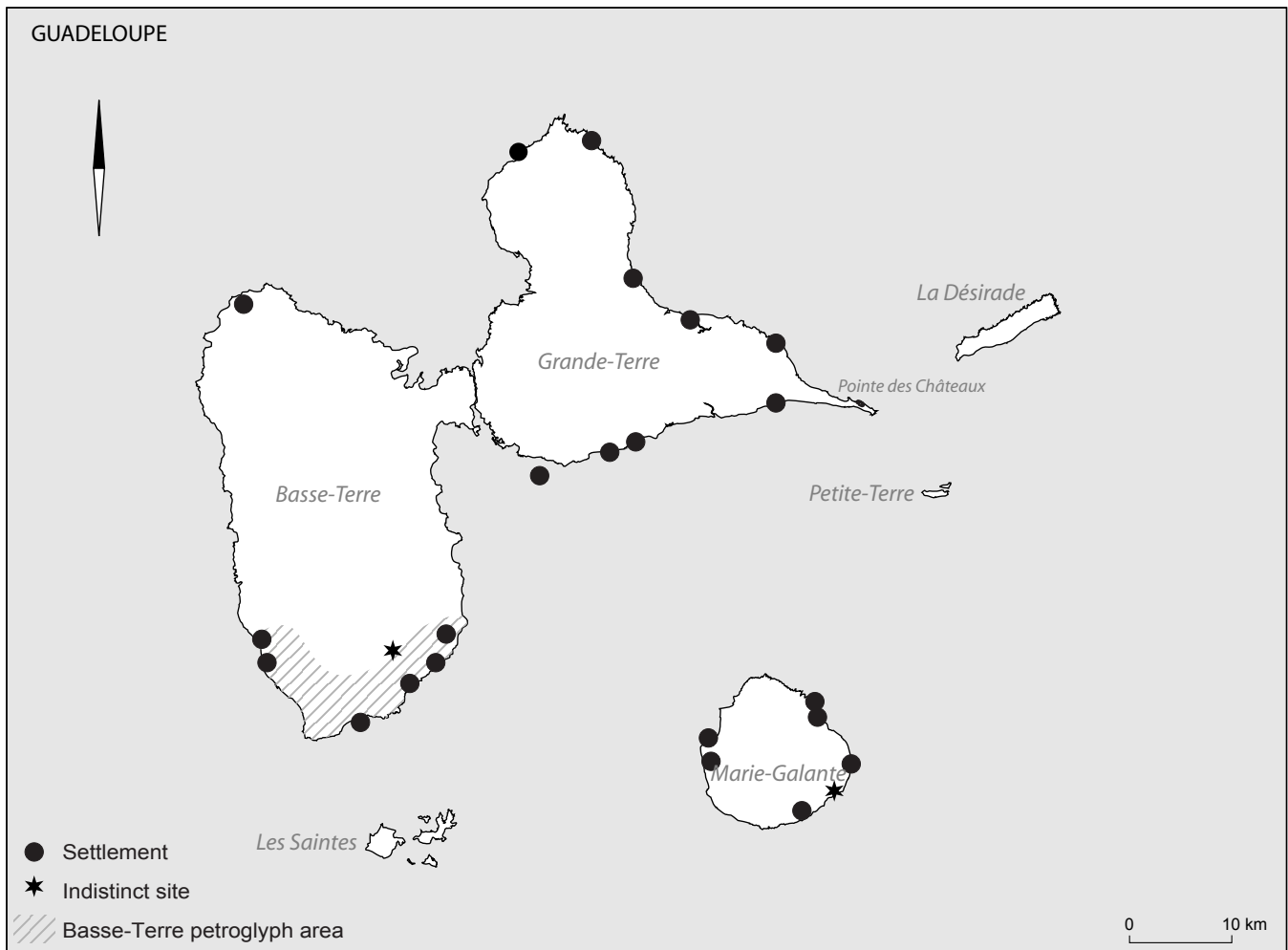


Fig. 6.3. Early Ceramic B sites on Guadeloupe and its nearest neighbouring islands (for sites in the Eastern Guadeloupe micro-region see fig. 6.2).

1992).

Golden Rock is representative for Early Ceramic B settlements in general considering its large dimensions and its dense refuse deposits, as well as its strong continuity in habitation. Some aspects, however, are less ubiquitous. As Bright (2003:48) pointed out, large roundhouses, as found at Golden Rock, were not necessarily the representative house type, as round, oval, and incidentally rectangular structures of varying dimensions are more common throughout the Caribbean.

Although far from reliable, an attempt has been made to estimate maximum numbers of inhabitants that could have possibly lived in the villages in the Eastern Guadeloupe micro-region, following ethnographically based guidelines by Myers and Roosevelt, presented in section 1.4.6. These numbers range roughly between 45 or 70 persons for Village des Pêcheurs, the smallest settlement, to 86 or 128 persons for Les Sables (table 6.1). These estimates are based on the maximum surface areas of the sites and thus should be considered as rough estimates. They appear to be far too high when compared to the Golden Rock estimates.

6.3.4 Settlement territories and hierarchies

The villages were dispersed and evenly distributed, separated by rather large distances, along the coasts of Pointe des Châteaux and La Désirade (fig. 6.2). This was probably due to the wide availability of attractive areas – with easy access from the sea, as well as good exploitation potential and observation facilities – for habitation within the micro-region; clustering of settlements due to limited occurrences of natural resources did not occur. The regular distances between the settlements resulted in equally spaced territories. It has been suggested above that people from villages outside the Eastern Guadeloupe micro-region exploited resources within this micro-region and that access

to settlement territories was probably not restricted (section 6.3.2).

Inhabitants of the La Désirade settlements could have considered the complete island as their territory as the villages of Les Sables and Anse Petite Rivière were not inhabited at the same time. The Pointe des Châteaux villages were located approximately 2 km from each other. The inhabitants of Petites Salines, and later Montagne des Petites Salines, were the only people to use and exploit the Pointe des Châteaux peninsula, due to a lack of contemporaneous settlements. It is possible that settlement territories were limited to approximately a 1 km radius, as habitation of Anse à la Gourde and Village des Pêcheurs may have been more or less contemporaneous.

Most villages had attractive coastal locations (fig. 6.4). They were on flat areas close to fresh water sources, easily accessible bays, reefs, salinas and good soils, and most settlements provided overviews on their surroundings. Rich subsistence and non-subsistence resources close-by allowed villages to be independent. The inhabitants probably centred on exploitation areas quite close to the settlements. They practised a mixed and broad-spectrum economy. Faunal exploitation is broad, focusing on a wide range of species. They cultivated root crops and tubers on the flat coastal areas near the villages. In addition, they collected shellfish, crustaceans and sea urchins in the shallow littoral zones (in sea-grass beds but mostly on rocky shores) and caught fish on reefs and more sporadically in offshore-pelagic zones. In inland zones surrounding the villages, wild tubers, seeds and fruits could be collected and small terrestrial mammals such as rice rat and agouti, as well as land crab, could be hunted and caught. Fresh water could be obtained close to most villages. Clays and temper materials for the manufacture of pottery and limestone rock and shell, and coral for the fabrication of other artefacts were widely available in the

Site	Site area	Site area - 10%	N inhabitants following Myers (1973)	N inhabitants following Roosevelt (1980)
Village des Pêcheurs	10,100	9090	46	68
Montagne des Petites Salines	15,500	13,950	70	105
Anse à la Gourde	Unidentified	Unidentified	Unidentified	Unidentified
Petites Salines	Unidentified	Unidentified	Unidentified	Unidentified
Les Sables	19,000	17,100	86	128
Anse Petite Rivière	Unidentified	Unidentified	Unidentified	Unidentified

Table 6.1. Estimated numbers of inhabitants of the Early Ceramic B settlements in the Eastern Guadeloupe micro-region.

near surroundings of the settlements, as were firewood, cotton, calabash, and fibres.⁴ Volcanic rock, suitable for the manufacture of lithic artefacts, was available at La Désirade and was worked in lithic workshops in the eastern part of this island. The inhabitants of Anse à la Gourde and Les Sables probably used these workshops for the manufacture of simple tools from volcanic rock, but they exploited local limestone rocks as well. They also obtained artefacts from more distant sources, such as Long Island (flint), Antigua (chert), and St. Martin (chert). Non-local flint was obviously preferred over the more easily available La Désirade red chert.

The observation that villages were situated in ecologically diverse, attractive settings concurs with that

made by Petersen and Crock (1999), reporting that all Late Saladoid settlements on Anguilla were located in 'optimum settings'. Murphy (2004) deemed fresh water and fertile soils to be the most attractive location variables for Early Ceramic groups on Antigua, although they preferred to settle inland, in contrast to the people living in the Eastern Guadeloupe micro-region. The attraction of salinas, near which all Eastern Guadeloupe settlements in this period were situated may have been related to various factors. No artefact or field evidence has been found that salt was gathered or processed. Antczak (1998:132), however, suggested for one of the Los Roques settlements that perishable materials were probably used for the collection and storage of salt and this may be true for the East-Guadeloupe settlements as well. Although

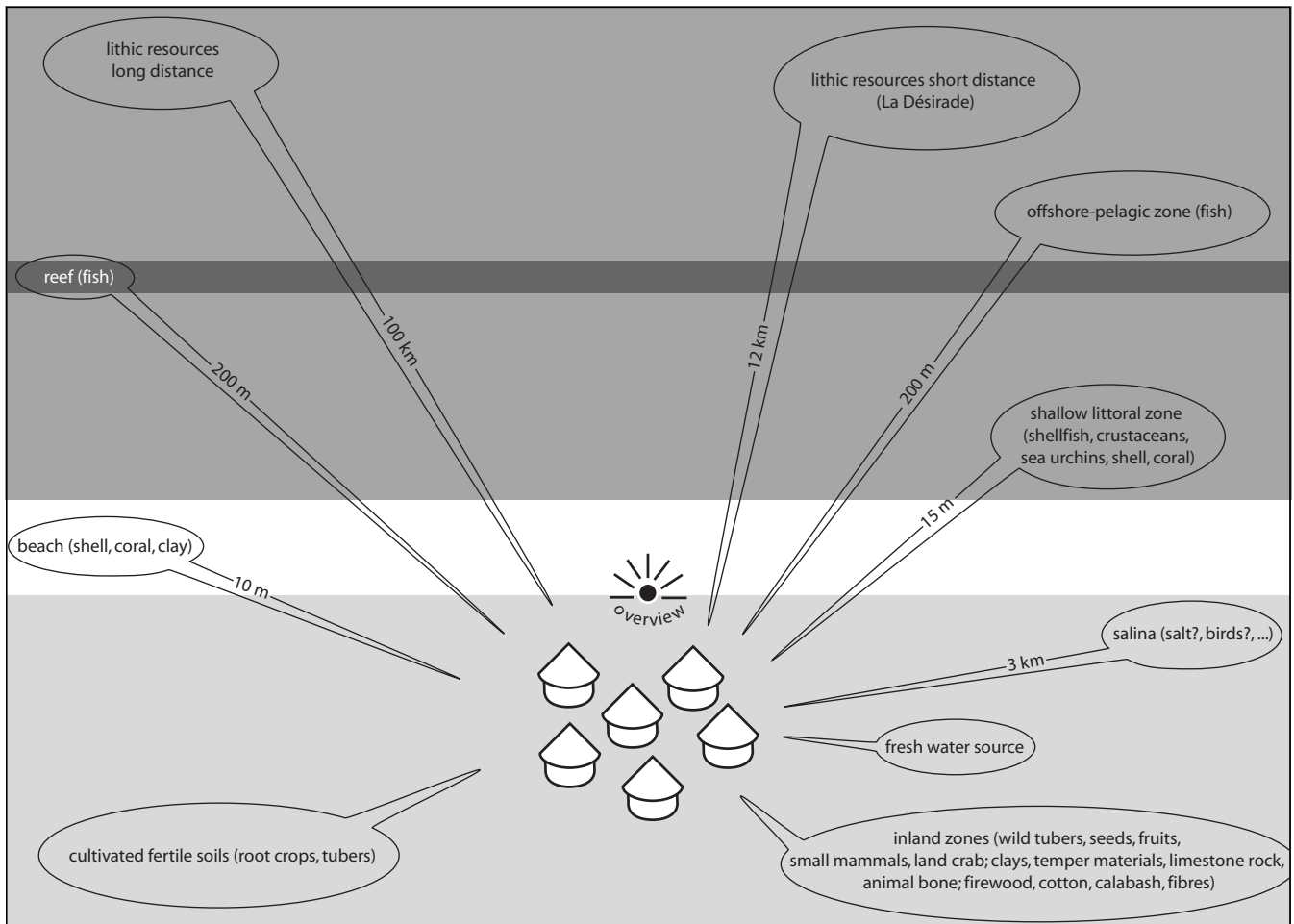


Fig. 6.4. Schematic representation of the Anse à la Gourde site location and (subsistence) resources.

Breton (1978[1647]:63) reported that the Amerindians he encountered on Guadeloupe did not use salt to spice their meals, it is possible that salt was used for conserving meat or fish. He, moreover, reported (1978[1647]:34-35) that the salinas on Grande-Terre sheltered large numbers and many species of birds, which made them attractive areas for exploitation. The Eastern Guadeloupe inhabitants actually did catch birds (appendices 2-5).

No evidence has been found for the existence of any settlement hierarchy, although it is clear that Anse à la Gourde and Les Sables were the most prominent villages. All villages had ecologically diverse locations and mutual differences were small. Regarding the location variables listed in section 1.4.4, Anse à la Gourde occupied the best location followed by Montagne des Petites Salines and Les Sables (table 5.1). Petites Salines, probably the first settlement on Pointe des Châteaux, and Village des Pêcheurs occupied next best locations. High-status artefacts, such as ceremonial paraphernalia, and non-local lithic artefacts have been collected from Anse à la Gourde and Les Sables. The latter settlement has the largest extent and the thickest archaeological layer (table 5.1).

There is no archaeological evidence for internal group organisation or for personal status variation in the Eastern Guadeloupe micro-region during the Early Ceramic B period.

6.3.5 Micro-regional and regional interaction

6.3.5.1 Introduction

Close contacts between inhabitants of different villages and different islands needed to be carefully maintained, for demographic reasons alone, *i.e.* the need for finding marriage partners outside the village. It is, however, difficult to demonstrate and to identify the existence of such contacts in material remains from neighbouring and contemporary villages that are rather similar to each other.

Regarding possible contemporaneity of settlements in the Eastern Guadeloupe micro-region (section 6.3.2), it is postulated that the inhabitants of Petites Salines could have had contact only with villages outside Eastern Guadeloupe, as a result of the absence of contemporary settlements nearby. In a later stage, contacts between inhabitants of Montagne des Petites Salines and Les Sables may have existed on the mere basis of contemporaneity. Interaction might also have taken place between Anse à la Gourde, Village des Pêcheurs and Anse Petite Rivière. Inhabitants of the Eastern Guadeloupe villages were probably in contact with occupants of settlements outside this micro-region as well.

In addition, if the temporary habitation site was contemporaneous with one or more of the Pointe des Châteaux settlements, then its occupants, who were probably from outside the Eastern Guadeloupe micro-region, must have communicated with inhabitants of the Pointe des Châteaux villages concerned.

6.3.5.2 Style zones

Early Ceramic B ceramics from villages in the Eastern Guadeloupe micro-region all bear, to a smaller or larger extent, style elements of the Saladoid series (section 4.2.3). Petites Salines pottery (fig. A2.6-A2.7) has some resemblance to Early Cedrosan Saladoid assemblages from all over the Antilles (fig. 6.5). Ceramics with Barrancoid influences – yielding typical knobbed handles and outward bent rims (fig. A2.15) and anthropomorphic and zoomorphic *adornos* (fig. A3.9) – were present at the settlements of Montagne des Petites Salines and Les Sables. Pottery with Barrancoid influences was also found at Morel on Grande-Terre. Barrancoid influences demonstrate the existence of connections with the South-American mainland (Keegan 2000:144) or at least the southern Lesser Antilles (fig. 6.5). According to Boomert (2000:249), these connections were probably more related to trade contacts, intermarriage and casual visits, than to raids and war. Ceramics found at Anse à la Gourde (fig. 4.3) and Village des Pêcheurs (fig. A2.12) are Late Cedrosan Saladoid, similar to those found at several settlements on Guadeloupe and on other Lesser Antillean islands, from St. Vincent and St. Lucia up north to Saba (Hofman personal communication 2005); (fig. 6.5).

Although regional pottery style similarities related to general morphologic and decorative traits can be distinguished, no micro-style areas could be defined on the basis of close similarities in shapes of vessels, bases and griddles, lip shape, wall thickness, orifice diameter, decoration, firing atmosphere, surface colour and surface finishing of ceramic assemblages from various Eastern Guadeloupe villages. The site assemblages have peculiar characteristics of their own. No close similarities were found either between pottery assemblages from settlements in the micro-region and those from settlements at greater distances like Morel (Hamburg 2000^b), Anse à l'Eau and Cocoyer St. Charles (Boomsma and Isendoorn 2001).

6.3.5.3 Procurement and distribution of non-local raw materials and finished products

Non-local rock that was obtained outside the Eastern Guadeloupe micro-region has only been identified at Anse à la Gourde and Les Sables (fig. 6.6). Inhabitants of Anse à la Gourde obtained jasper from Martinique, red ochre from St. Martin, flint from Antigua and possibly calcite and plutonic

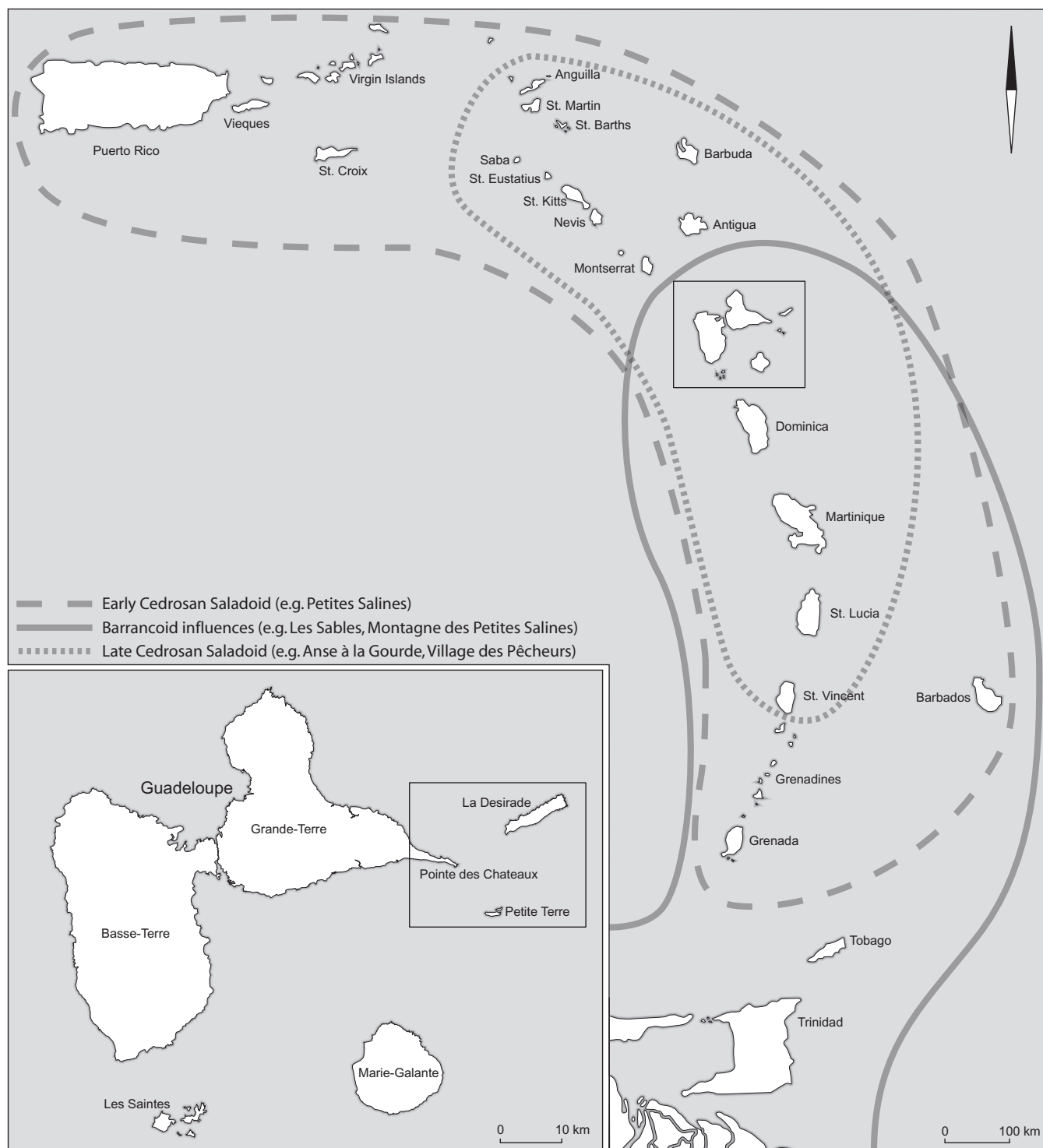


Fig. 6.5. Early Ceramic B style zones.

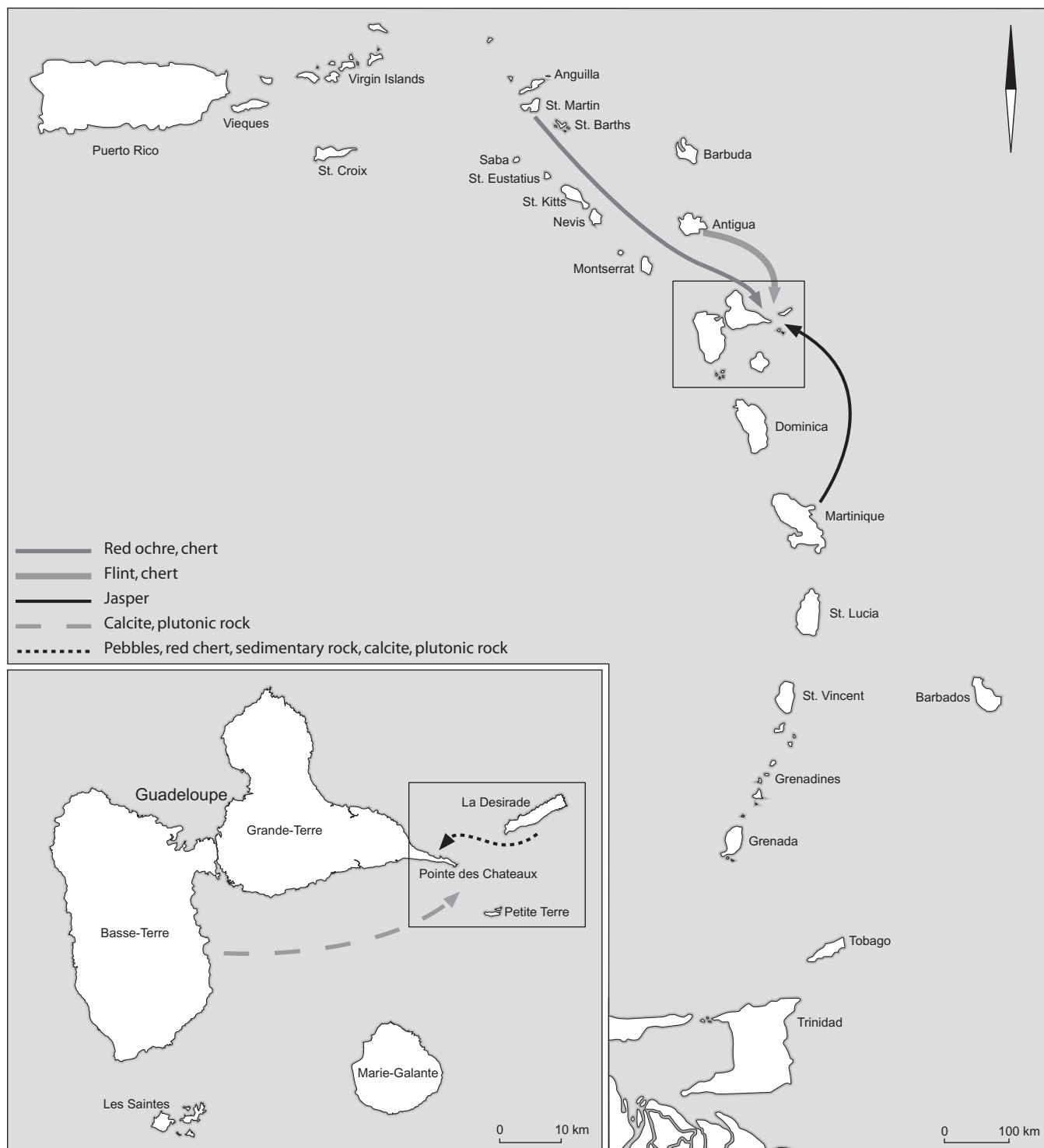


Fig. 6.6. Early Ceramic B long distance and short distance (detail) procurement of non-local materials and finished products.

rock from Basse-Terre. Antigua flint was preferred over La Désirade red chert, notwithstanding the fact that chert could be easily obtained during visits aimed at the procurement of La Désirade water-worn pebbles, that were found in great quantities at Anse à la Gourde. People who lived at Les Sables procured flint from Long Island and chert from Antigua and St. Martin.

Unmodified Long Island flint nodules were exchanged or directly procured throughout a region stretching from Martinique to Puerto Rico and they were locally used for the production of flake tools. Local groups from the northern coast of Grand-Terre, including the Eastern Guadeloupe micro-region, to the region south of St. Martin probably directly procured flint during specially organised trips to the Long Island source. People who lived outside this zone were dependent on down-the-line exchange with intermediate communities (Knippenberg 2006).

Green chert axes and adzes on the contrary were distributed in a different system. These items were manufactured in limited numbers at settlements close to the source on St. Martin and transported as finished items, probably through down-the-line exchange. Production sites with direct access to the sources of raw material were located at least 350 km from the Eastern Guadeloupe micro-region. They include Hope Estate on St. Martin (De Waal 1999^c; Haviser 1988), Golden Rock on St. Eustatius (Versteeg and Schinkel 1992), Sugar Factory Pier on St. Kitts and Sandy Ground and Rendezvous Bay on Anguilla (Crock 2000). The area included in the green chert exchange system largely coincides with that of Long Island flint. Within the East-Guadeloupe micro-region, inhabitants of Anse à la Gourde and Les Sables probably obtained finished green chert tools directly from people who lived at the production sites (Knippenberg 2001^b; 2006).

Most lithic artefacts in Eastern Guadeloupe, however, were manufactured from rock types that were available within the micro-region (fig. 6.6). Grande-Terre limestone and La Désirade igneous rock were widely used for the manufacture of grinding-stones and the inhabitants of Anse à la Gourde exploited red chert, sedimentary rock, calcite and plutonic rock from La Désirade. They also collected use-modified or non-modified water-worn pebbles from La Désirade, as did the inhabitants of Montagne des Petites Salines, and those of settlements outside the Eastern Guadeloupe micro-region, such as Anse à l'Eau on Grande-Terre.

6.4 CONSOLIDATION AND INTENSIFICATION OF OCCUPATION AND CHANGING CONTACT NETWORKS (LATE CERAMIC A: AD 600/850-1200/1300)

6.4.1 Introduction

During the Late Ceramic A, the open spaces in the Eastern Guadeloupe micro-region were gradually filled up by settlements and their territories. The number of sites on Pointe des Châteaux and La Désirade increased and the formerly uninhabited islands of Petite Terre were now being settled and exploited as well. This could be a result of Pointe des Châteaux and La Désirade beginning to be too densely occupied, creating a desire for new areas to be explored. This pattern fits the general picture for the wider Caribbean in this period, when new islands were settled by growing populations (Petersen *et al.* 2004). Murphy (2004), for example, also noted that small arid offshore islands near Antigua were beginning to be exploited, probably on a seasonal basis. In total, 59 sites have been found in the Eastern Guadeloupe micro-region, including 22 habitation sites, two ceremonial sites, one strategic outpost and 34 indistinct sites (fig 6.7; table 5.1). The undated lithic workshops on La Désirade (fig. 5.2) were probably used during this period as well.

6.4.2 Settlement pattern

Occupation of the micro-region was consolidated and intensified during the Late Ceramic A. The number of settlements increased, especially after AD 1000. People continued to live in large permanent villages, which were slightly smaller, however, than the Early Ceramic B settlements (table 5.1).⁵ This has also been reported for Antigua (Murphy 2004) and Montserrat (Watters and Petersen 1992). The number of sites with thick occupation layers increased; the villages of Anse à la Gourde, Petites Salines, À l'Escalier, Aéroport and the Petite Terre settlements are most representative of this (table 5.1). They may have been occupied longer or more substantially than the Early Ceramic B settlements, but it is also possible that the latter were simply more prone to destruction by post-depositional processes. Many other sites, however, have rather shallow occupation layers and were probably inhabited for relatively short periods.

Almost all villages were established after AD 1000, but Degrat (AD 700/800-1200), Grande Saline (AD 800-1000), Grand Abaque 1 and Pointe Colibri (both AD 800-1200) were settled before this date. The relative spacing of the villages suggests that Nord Morne Zambi (AD 1000-1200) probably succeeded Grande Saline, likely as a result of coastal processes. People apparently

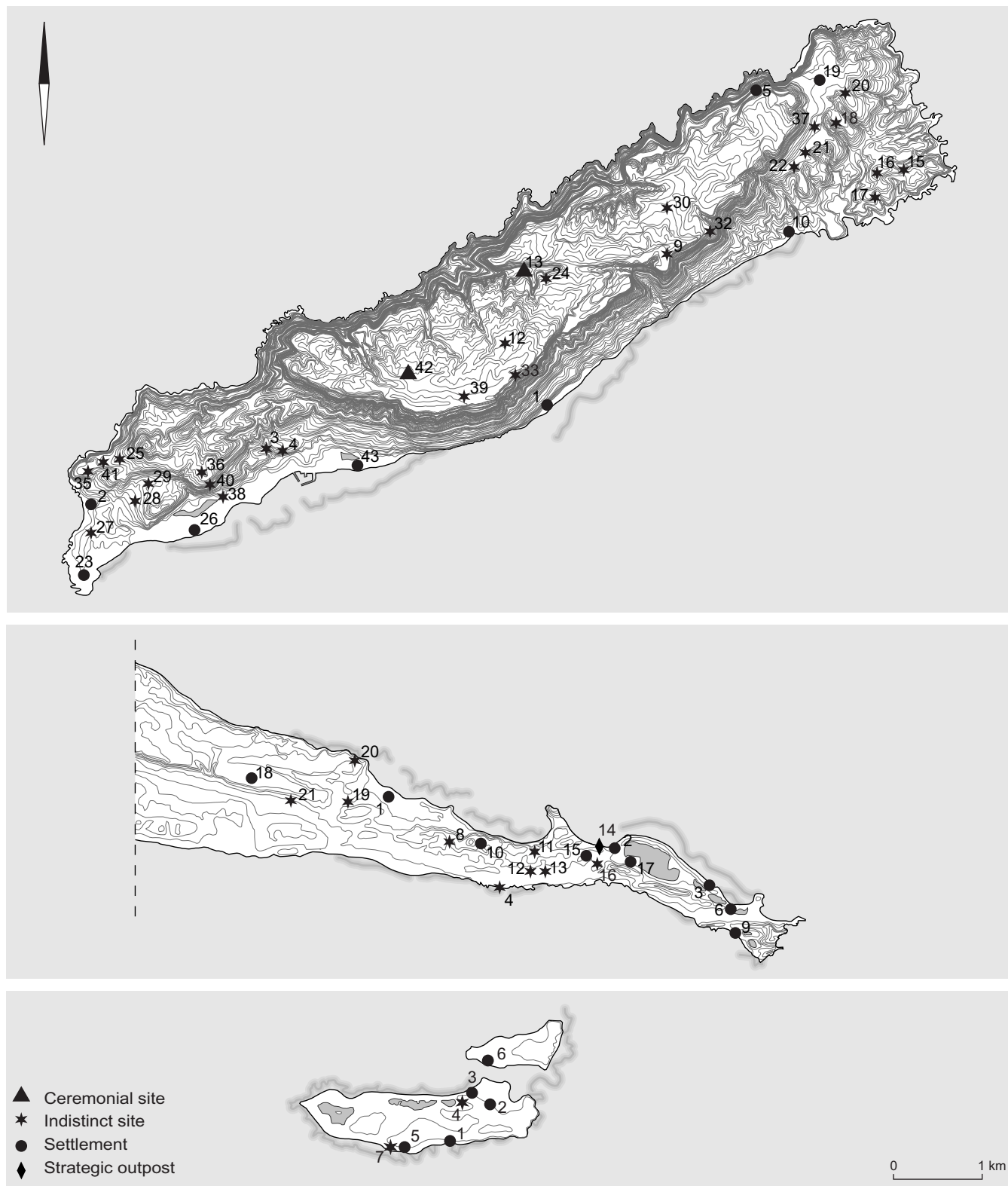


Fig. 6.7. Late Ceramic A sites in the Eastern Guadeloupe micro-region.

decided to move their settlement inland. It is also possible that habitation at Est de Mouton de Bas shifted to Site du Phare for the same reason. There was certainly settlement mobility then, though some of the larger settlements tended to be occupied for rather long periods at one and the same location. Contemporaneity between the settlements has not been established, except for Anse à la Gourde and Anse Petite Rivière.

The increased number of villages led to a denser settlement pattern than the pattern of the preceding period. A similar development has been reported for other islands as well, for example for Barbados (Drewett 1995^a), Antigua, Montserrat and Barbuda (Watters 1980), Nevis (Wilson 1989), St. Martin (Haviser 1988), and Anguilla (Crock 1995). It has generally been explained by population growth (e.g. Crock and Petersen 1999, 2004; Curet *et al.* 2004; Haviser 1991; Keegan 1985; Murphy 1999; Petersen *et al.* 2004; Siegel 2004; Watters and Petersen 1992; Wilson 1989, 1991). An organisational shift in society and associated settlement pattern might, however, cause a similar increase as well (De Waal 1999^b; Drewett 2004; Siegel 1992; Wilson 1989, 1991). It is possible that several settlements were inhabited more briefly, entailing higher settlement mobility when compared to the Early Ceramic B. The Guyana situation described by Rivière (1995) comes to mind. There, settlements are usually shortly inhabited – ten years at maximum – abandoned for a large variety of personal, ceremonial, environmental and practical reasons, and moved relatively short distances. Villages thus move from time to time. It is also possible – if the population did indeed increase – that large villages such as Anse à la Gourde grew towards a certain level of occupation density and that people chose to split up and found new, smaller, economically independent settlements. The foundation of small settlements is an effective way of filling up open spaces within the landscape.

The second development, as compared to the Early Ceramic B, is the increase in site type diversity. This has also been reported for other parts of the Caribbean (e.g. Siegel 1992 for Puerto Rico). A strategic outpost, a large number of possible temporary habitation sites and special activity sites, and some ceremonial sites have been found in the selected micro-region, indicating that settlements no longer functioned as centres where all ceremonial, socio-political and economic activities were carried out. Larger parts of the landscape gained importance in this respect. Pre-Columbian inhabitants used strategic outposts on elevated parts of the landscape, such as Ouest Anse à Plume, for observation and control of their environment. Apparently, in contrast with the Early Ceramic B, people chose to do so. It may be postulated that strategic or observation posts were used by inhabitants

of villages close-by, in this case Est Pointe Tarare.

The landscape was used more intensively: people established temporary camps and carried out activities related to the exploitation of natural resources outside the villages. The increased amount of off-site material provides evidence of this intensification as well. It has been suggested (section 5.6.2) that the temporary habitation sites or campsites on Petite Terre were used by inhabitants of villages on Pointe des Châteaux and La Désirade, who were attracted by rich marine resources. As suggested in section 6.3.2, it is possible that temporary habitation sites on Pointe des Châteaux and La Désirade were used by inhabitants of villages outside the micro-region but they may also be a result of a rapidly growing population, encouraging people to leave the main settlements. The Pointe des Châteaux temporary habitation sites were close to the villages and possibly encroached upon their territories. The La Désirade temporary habitation sites are on the central plateau and the eastern plateaus, at a larger distance from the villages but they can still be reached easily within a few hours. Special activity sites on Pointe des Châteaux and La Désirade were probably used for gardening activities by inhabitants of nearby settlements.

During the Late Ceramic A inhabitants of certain villages began to use caves near settlements for protection against hurricanes or other natural or possibly human threats (section 5.3.1).

Rituals were still carried out at settlements, as attested to by the presence of *zemis*, *spatulae*, *adornos*, inlays and body-stamps. The Anse à la Gourde burial area increased in size and importance. It probably assumed a central ceremonial function. The complex and elaborate burial rituals, the wide range of modes of body treatment and burial positions of the primary and secondary burials, some of which contained more than one individual, suggest the performance of complex ancestor rituals. There is further evidence in the deliberate removal of long bones or skulls from some of the buried individuals long after their bodies had decomposed. Ethnohistoric accounts provide a possible explanation for this practice, describing how ancestor remains were treasured, worshipped and consulted as *zemis*.⁶ Ancestor veneration has been reported to strongly emphasise and legitimise expanding personal power of chieftains (Redmond 1998:9).

À l'Escalier assumed a special importance as well, as it yielded not only a *zemi* and *spatulae* preforms but also an anthropomorphic head carved out of beach-rock (fig. A3.5). This object possibly had a *zemi*-like function. In addition, a shell inlay was found, which probably functioned as an eyepiece for a statue or figurine (fig. A3.6). Wooden statues, decorated by similar shell inlays, are known from the Greater Antilles, and are usually labelled Taíno style

(see for example Dacal Moure and Rivero de la Calle 1996: colour plate 7). It is possible that such statues were locally made on the Lesser Antilles as well.

Ritual activities were not only carried out in the villages, but also at special ceremonial or ritual sites conspicuously located throughout the landscape. Ritual activity being clearly less restricted to the villages may be considered a third development when compared to the preceding Early Ceramic B period. Two ceremonial sites have been discovered: Chemin de M. De l'Orme and Voûte à Pin (section 5.5.3). The ceremonial depot at Chemin de M. De l'Orme (fig. A3.39) indicates that incidental votive offerings were made outside the settlements. Voûte à Pin,

on the other hand, seems to indicate that ancestor veneration rituals were carried out, probably on a more frequent basis, outside the villages. Both sites are located on the central plateau of La Désirade, at considerable distance from the villages (De Waal 2003). It is difficult to grasp the significance of this plateau but the shape of La Désirade was probably recognised as a remarkable feature by pre-Columbian inhabitants of the island and of neighbouring islands. It is the only island in the area that is a high table-mountain, surrounded as it is by flat limestone islands and, more remotely, by mountainous volcanic islands. The presence of the huge plateau, intimidating and looming, can be intensively felt on the southern coastal plain of La

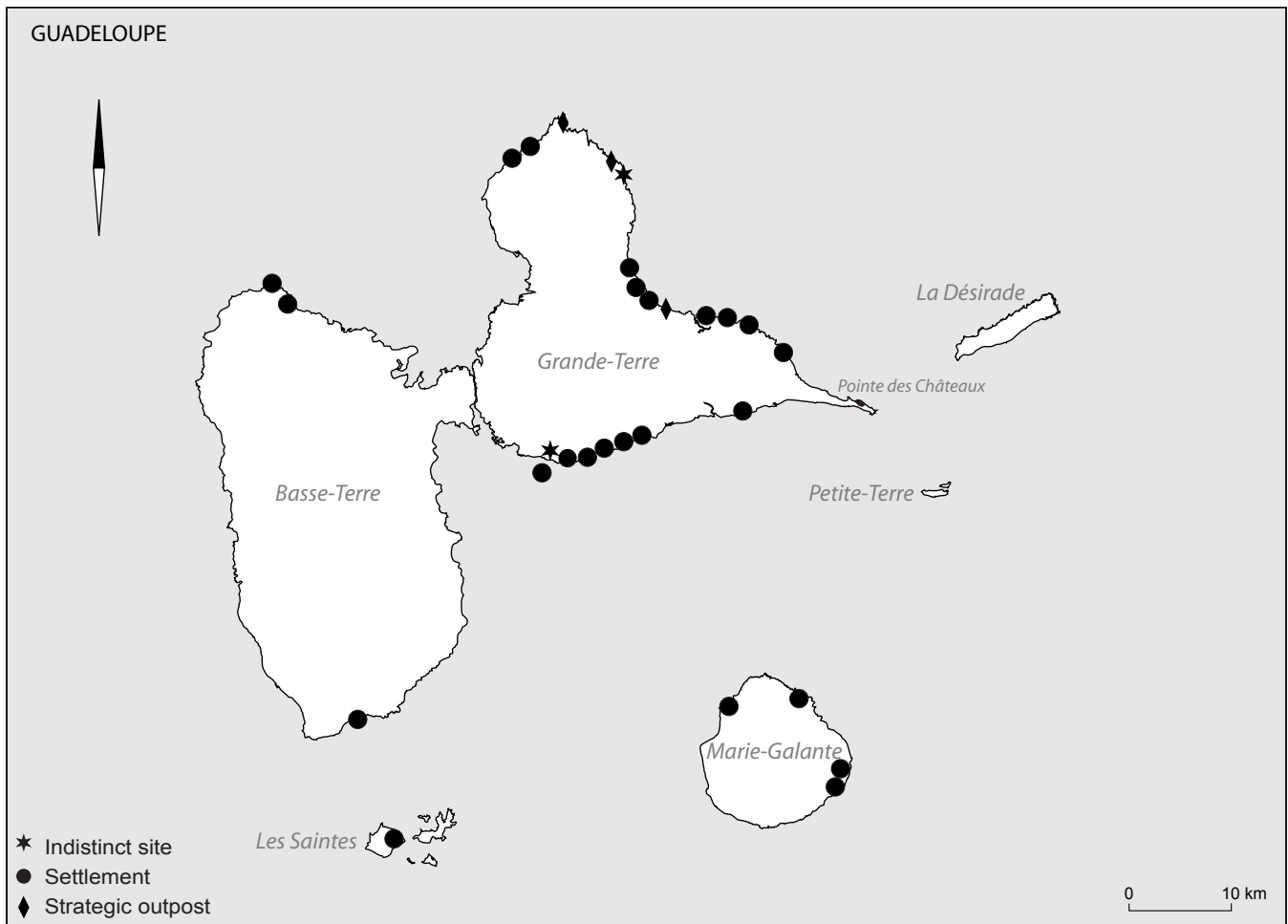


Fig. 6.8. Late Ceramic A sites on Guadeloupe and its nearest neighbouring islands (for sites in the Eastern Guadeloupe micro-region see fig. 6.7).

Désirade, where most settlements are situated. When seen from Grande-Terre, for example from Anse à la Gourde, La Désirade rises vertically from the sea. From another perspective, such as from Petite Terre and Marie-Galante, La Désirade resembles a giant alligator and the resemblance was probably not overlooked by people inhabiting the region. Alligators are native to the South-American mainland and they were represented in Early Ceramic B ceramic iconography, for example from Anse à la Gourde. The ceremonial sites themselves were most likely not visible in the landscape due to their unmarked, non-monumental nature. However, it is possible that the exceptional locations of the sites, in combination with oral tradition, which may have recounted the biographies of these places, emphasised their significance for pre-Columbian communities in the Eastern Guadeloupe micro-region.

The settlement pattern of Grande-Terre as a whole mirrors the developments documented above for Eastern Guadeloupe (fig. 6.8): when compared to the Early Ceramic B period the number of settlements increased, as did site type diversity and the occurrence of settlements in locations that were not occupied before. There were, for example, some strategic outposts in elevated areas on the north-eastern coast as well as some indistinct sites on the north-eastern and southern coasts of Grande-Terre. Striking differences between the Eastern Guadeloupe settlement pattern and those of Grande-Terre, Basse-Terre, Marie-Galante and Les Saintes, are the absence of inland sites – most settlements were located along the coasts – and the low number of temporary habitation sites and special activity sites on these latter islands. The lower intensity of archaeological investigation on these islands when compared to that of the Eastern Guadeloupe micro-region largely explains these differences.

6.4.3 Settlement structure

Information on settlement structure is only available for Anse à la Gourde. This village comprised distinct functional zones, including an oval-shaped refuse midden that partly enclosed a cleared or ‘empty’ area (tentatively labelled *plaza* or central ceremonial space) and a habitation area (Hofman *et al.* 2001^{a,c}). The oval shape of the midden probably arose by a process described by Boomert (2000:293), in which refuse areas shift in circular trajectories over a settlement. Although Caribbean archaeologists tend to identify circular village plans, even on the basis of incomplete settlement layouts, a variety of settlement forms occurred, of which the ethnographically reported ring-village is only one (Heckenberger and Petersen 1995). People in the Lesser Antilles may have lived in linear settlements stretching along rivers or shorelines, single-dwelling villages or settlements

with seemingly randomly placed structures, as people still do on the South-American mainland (Bright 2003:44-45). Anse à la Gourde represents the third settlement type. Its habitation area was characterised by burials and by a few small residential structures, including round and oval houses (5 to 8 m in diameter), and a small rectangular house. Residential structures were built and rebuilt in a limited area over a long period of time (Bright 2003), reflecting the strong continuity of this settlement. Based on approximations of habitation areas of the dwellings, it has been postulated that residential structures housed 2 to 22 inhabitants (Bright 2003:53). It is very difficult to make an educated guess as to the number of inhabitants of the Eastern Guadeloupe settlements. In accordance with ethnographic guidelines (section 1.4.6), most villages would have been inhabited by approximately 40-50 persons. The largest settlements would have been inhabited by about 200-300 people on average, while the smallest would have been occupied by around 10 inhabitants (table 6.2). It must be stressed that these numbers reflect educated estimates rather than real calculations.

6.4.4 Settlement territories and hierarchies

Late Ceramic A inhabitants continued to live in evenly distributed settlements throughout the micro-region (fig. 6.7). The increase in the numbers of settlement resulted in shorter inter-settlement distances and smaller territories as compared to the preceding period. The landscape was getting structured. Attractive habitation areas – easily accessible from the sea, with good exploitation potential and observation facilities – were still widely available and there was no need to cluster in specific parts of the micro-region. Most settlements probably had territories of roughly similar size, resulting in a balanced use of subsistence resources in the direct environs of the villages. Socio-political and ceremonial contacts probably extended beyond the borders of these territories.

Most settlements continued to be situated in attractive coastal areas (table 5.1). Several villages were on flat terrain, providing overviews of the surroundings, and were close to good soils, canoe landing-spots, and coastal reefs. Fond Caraïbe, Cocoyer and Grand Abaque 1 were located inland. Although greater efforts may have been required to obtain fresh water and marine resources, these locations were apparently not considered unattractive. Inhabitants of Pointe des Châteaux and La Désirade possibly settled these areas for reasons relating to defensibility or spiritual connotations instead of merely economic factors. In addition, the villages apparently could rely on sufficient subsistence and non-subsistence resources. Evidence for Late Ceramic occupation of inland and plateau settings has been found on Barbuda (Watters and Petersen 1992) and

Anguilla (Petersen and Crock 1999:125) as well. Crock and Petersen (1999) suggest that population pressure may have prompted settlement of inland locations, but they propose that defensibility and proximity to fertile soils were also important factors in location choices. Fertile soils were certainly present in the near surroundings of Fond Caraïbe, Cocoyer and Grand Abaque 1. Keegan (1985:193-194) put inland settlement locations in the Bahamas down to the occurrence of rare resources such as salt, but this does not appear to hold true for inland settlements in Eastern Guadeloupe.

Inhabitants of the Eastern Guadeloupe micro-region carried on practising a similar mixed and broad-spectrum economy and they continued to exploit the zones near their villages, as people had done during the preceding period (fig. 6.4; section 6.3.4). For the Late Ceramic A, however, there

is also evidence that they caught birds, and reptiles, such as iguana, and people inhabiting the Petite Terre settlements caught quite a number of sea turtles. The long Petite Terre beaches still attract sea turtles, who lay their eggs there. In addition, in contrast to the Early Ceramic B, few villages were close to fresh water. This was also reported for Antigua (Murphy 1999:72). The inhabitants of the Eastern Guadeloupe micro-region obtained non-local materials and artefacts from Barbados or the Grenadines (sandstone), Basse-Terre and Montserrat (igneous rock), Antigua (flint), the Greater Antilles or the South American mainland (metamorphic rock), and probably St. Martin (green chert artefacts). Although the inhabitants of La Désirade worked local rock, they apparently did not use the local lithic workshops intensively.

Site	Site area	Site area - 10%	N inhabitants following Myers (1973)	N inhabitants following Roosevelt (1980)
Anse à la Gourde	45,000	40,500	203	304
Petites Salines	5200	4680	23	35
Grande Saline	12,200	10,980	55	82
Est Petite Saline Orientale	7700	6930	35	52
Degrat	1200	1080	5	8
Site 7	17,000	15,300	77	115
Est Pointe Tarare	13,700	12,330	62	93
Nord Morne Zambi	5400	4860	24	37
Fond Caraïbe	2400	2160	11	16
Anse Petite Rivière	50,400	45,360	227	340
À l'Escalier	1700	1530	8	12
Anse des Galets	14,800	13,320	67	100
Cocoyer	9400	8460	42	64
Grand Abaque 1	10,000	9000	45	68
Pointe Colibri	9700	8730	44	66
Aéroport	28,200	25,380	127	190
Pointe à Godard	15200	13,680	68	103
Baleine du Sud	9500	8550	43	64
Site du Phare	25,100	22,590	113	169
Est de Mouton de Bas	8200	7380	37	55
Trou Canard	Unidentified	Unidentified	Unidentified	Unidentified
Pointe Sablé	8400	7560	38	57

Table 6.2. Estimated numbers of inhabitants of the Late Ceramic A settlements in the Eastern Guadeloupe micro-region.

A settlement hierarchy began to develop. Anse à la Gourde evolved into a central settlement. It occupied the best location (table 5.1) and the largest territory on Pointe des Châteaux, and it was probably the largest and most lengthily inhabited village in Eastern Guadeloupe. The village also yielded the largest quantities of potential high-status artefacts and it appears to have played a central role in long-distance exchange systems. It is possible that the reputation of villages with long-term occupation, such as Anse à la Gourde, played a certain role in local oral tradition. This might have made villages to be recognised as centres, possibly holding claims on the surrounding land, and to be respected in a wider (micro-)region. The same may be true for villages with burial grounds with supra-local significance, whether or not visually emphasised in the landscape.

Contradictorily to what one might expect of a micro-regional centre, almost all burials at Anse à la Gourde were associated with residential structures. This indicates that some individuals and their family relations became more important in the socio-political village organisation than others, pointing to a more complex society compared to the preceding period when a communal burial ground was used (Hofman and Hoogland 2004). In addition, variation in mortuary practices and a more individualised treatment of the deceased took place, which can be considered indicative for social differentiation. Grave goods, however, do not reflect personal status differences (Hofman and Hoogland 2004). It has been suggested that changes in burial practices indicate that common group ideology shifted to an emphasis on individual households and that incipient social stratification developed (Curet and Oliver 1998; Hofman and Hoogland 2004; Richter 2001). This shift may result in changes in settlement structure as well, multiple structure settlements replacing single-dwelling villages, but this development has not been witnessed in Eastern Guadeloupe.

Crock and Petersen (2004) have postulated that during the Late Ceramic A Anguilla's settlement hierarchy reflected an independent multi-island chiefdom polity instead of a system of incipient social stratification. They based this idea on the presence of high-status objects occurring in 'optimum settings', and the important role of Anguillan settlements in the exchange of ceramics and green chert tools and calci-rudite *zemis*. The Anguillan villages have been assumed to be at the highest level of the inter-island settlement hierarchy on the basis of their dimensions which far exceed those of settlements in other Lesser Antillean islands (Crock 2000). The largest settlements of the Eastern Guadeloupe micro-region, Anse Petite Rivière and Anse à la Gourde, have surface areas comparable to middle-range dimensions of Anguillan villages. Crock (personal communication with Hofman, 2004) has suggested that

Anse à la Gourde may have played a central role within a similar chiefdom polity as the one on Anguilla. However, organisation and maintenance of long-distance contacts, involving exchange of high status objects, does not necessarily require or produce situations of hereditary status variation or institutionalised social stratification, which are essential aspects of chiefdom societies, nor did burial evidence at Anse à la Gourde demonstrate the existence of status differences. A system of incipient social stratification seems more plausible for Eastern-Guadeloupe.

6.4.5 Micro-regional and regional interaction

6.4.5.1 Introduction

Intensive contacts continued to exist between people living in different villages or on different islands during the Late Ceramic A period. Before analysing the existence of style zones and the procurement and distributions of non-local materials and products, it is useful to determine which settlements in the Eastern-Guadeloupe micro-region could have been in contact with each other, based on possible contemporaneity of settlements (section 6.4.2). Inhabitants of the earliest villages dating to this period, including Degrat, Grande Saline, Grand Abaque 1 and Pointe Colibri, might have had contact with each other. During the later part of the Late Ceramic A, people living in the other settlements in the micro-region, which were roughly dated AD 1000-1200, probably had contact with each other as well. In addition, the occupants of temporary habitation sites on Pointe des Châteaux and La Désirade would have been in communication with inhabitants of the more permanent villages in this area. The Petite Terre temporary habitation sites may have been occupied by people living on Pointe des Châteaux or La Désirade, who were attracted by the abundant marine resources of the islands.

Apart from these micro-regional contacts, some settlements participated in contact networks that included more distant villages as well.

6.4.5.2 Style zones

Stylistically, Late Ceramic A pottery from Guadeloupe is intermediate between that of the southern and northern Lesser Antilles (fig. 6.9). Pottery complexes from Grande-Terre, La Désirade and Petite Terre share Mamoran Troumassoid affiliations, pointing to contacts with the northern Lesser Antilles, as well as early Suazan Troumassoid affiliations, indicating influences from the southern islands (section 4.2.4; fig. 6.9).

Diversity in pottery styles increased and micro-style areas came into existence. Contact networks had become more localised when compared to the Early Ceramic B.

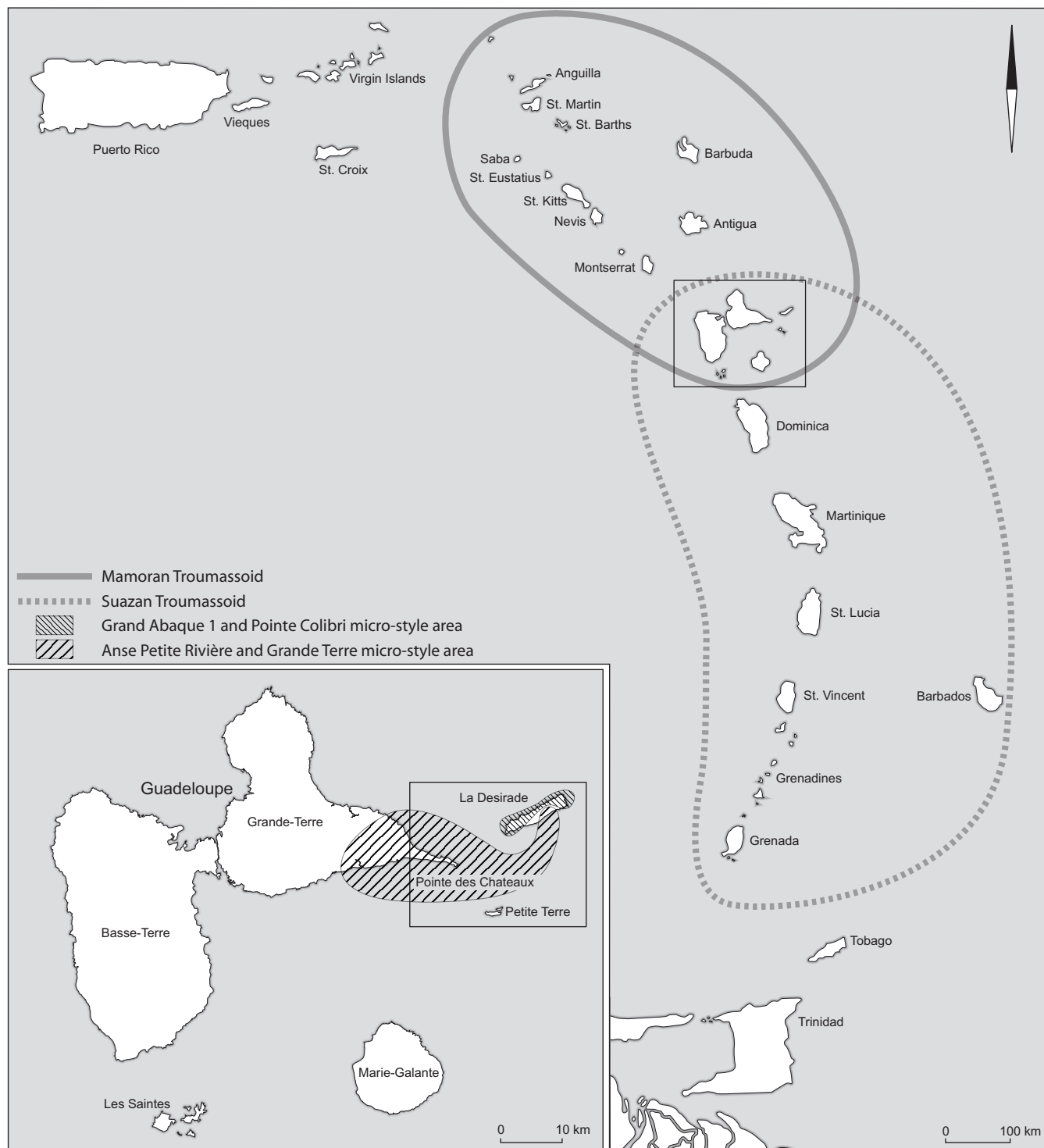


Fig. 6.9. Late Ceramic A style zones and micro-style areas (detail).

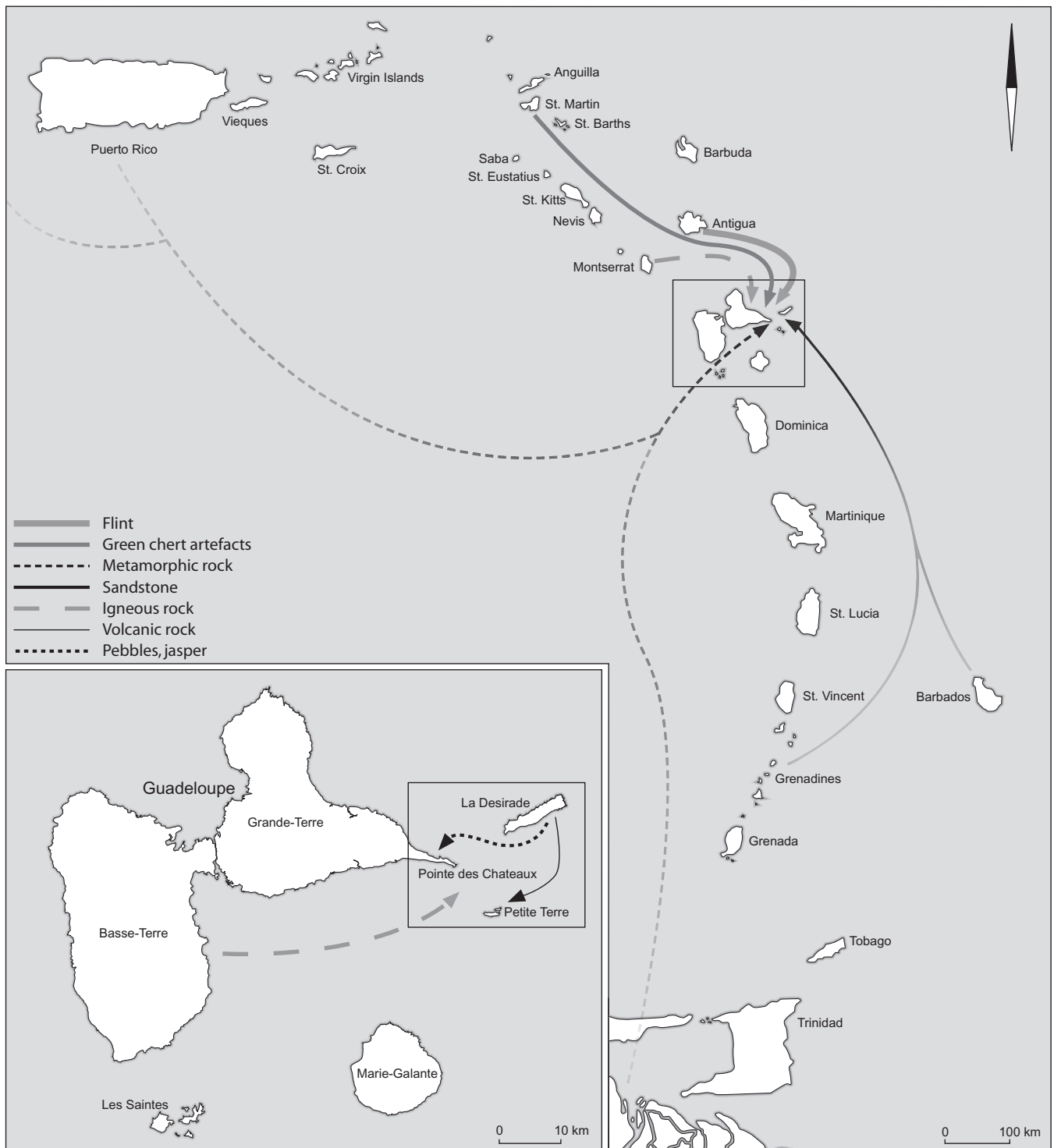


Fig. 6.10. Late Ceramic A long distance and short distance (detail) procurement of non-local materials and finished products.

Increasing population, distributed over the landscape in dense settlement patterns, as well as successful adaptation to the island environment had made it possible for local groups to be involved in contact networks over shorter distances; the intensity of interaction within micro-regions increased.

Close stylistic similarities have been observed between the pottery from Grand Abaque 1 and Pointe Colibri, relating to shapes of vessels, bases and griddles, surface colour and finishing and firing conditions, and red slip and decoration (appendix 3). This suggests that inhabitants of the two settlements maintained regular contacts with each other (fig. 6.9).

Strong stylistic similarities have been found between Late Ceramic A pottery from Anse à la Gourde (Pater and Teekens 2004) and Anse Petite Rivière (appendix 3), that were not shared with other settlements. Close and frequent contacts certainly existed between Anse à la Gourde and Anse Petite Rivière; some vessels might even have been manufactured by one and the same potter. In addition, Mamoran Troumassoid/Suazan Troumassoid ceramic assemblages from other settlements on Grande-Terre (Pointe Helleux, Pointe Canot and Pointe de la Couronne Conchou) are very similar to those of Anse à la Gourde and Anse Petite Rivière.⁷ The ceramics from these settlements had similar vessel forms and red-slipped surfaces, and if decorated at all, shallow broad-line incised patterns were predominant (Hofman *et al.* 2004; appendix 3). These settlements on Grande-Terre and La Désirade clearly participated in a micro-regional contact network (fig. 6.9).

6.4.5.3 *Procurement and distribution of non-local raw materials and finished products*

Inhabitants of a larger number of settlements obtained non-local rock from outside the Eastern Guadeloupe micro-region compared to the preceding period and more settlements seem to have been involved in exchange or direct procurement networks (fig. 6.10). People living at Anse à la Gourde probably played a central role in procurement and distribution of non-local lithic raw materials, profiting from the increasing importance of their village and from the larger history of participating in exchange networks. Their long distance contact networks (fig. 6.10) encompassed Basse-Terre and Montserrat (igneous rock), Antigua (flint), the Greater Antilles or the South American mainland (metamorphic rock) and Barbados or the Grenadines (sandstone); (Knippenberg 2006).

The distribution pattern of finished green chert artefacts remained largely the same as it was during the Early Ceramic B period (section 6.3.5). These were rather common in the Anguilla-Guadeloupe region and inhabitants of Anse à la Gourde, À l'Escalier and Site Du Phare participated in

this network.

Trips over shorter distances continued to be undertaken by inhabitants of the villages at Pointe des Châteaux and Petite Terre, in order to collect pebbles, jasper and volcanic rock on La Désirade (fig. 6.10). They used locally available calcareous rock, sedimentary rock and beach-rock incidentally. The lithic workshops at La Désirade seem to have been most intensively used by inhabitants of this island. Inhabitants of the villages at Pointe des Châteaux and Petite Terre clearly preferred Antigua flint to La Désirade red chert. Inhabitants of La Désirade villages also used larger amounts of other locally available volcanic and limestone rock when compared to the Early Ceramic B period (fig. 6.10).

6.5 ABANDONMENT OF THE MICRO-REGION AND INCORPORATION OF LOCAL GROUPS INTO LARGER SOCIO-POLITICAL UNITS (LATE CERAMIC B: AD 1200/1300-1493)

6.5.1 Introduction

People left the Eastern Guadeloupe micro-region during the Late Ceramic B: the number of settlements decreased dramatically, even when seen in the light of the shorter duration of this period. Only three villages remained on La Désirade and Pointe des Châteaux (fig 6.11; table 5.1). Petite Terre was abandoned again. The lithic workshops at La Désirade (fig. 5.2) probably continued to be used.

6.5.2 Settlement pattern

The micro-region became desolate during the Late Ceramic B period (fig 6.11). A small part of Anse à la Gourde remained occupied and two new settlements appeared in formerly uninhabited locations, situated on the southern edge of the central plateau of La Désirade (Morne Cybèle-1 and Morne Souffleur). Petite Terre and the other settlements on Pointe des Châteaux and La Désirade were abandoned. The Late Ceramic B settlement sites are small compared to those of the preceding periods and the relatively thin refuse layers suggest that the villages were inhabited by small groups of people or for rather short periods (table 5.1).⁸ The settlements were inhabited at the very end of the pre-Columbian period: Morne Cybèle-1 has been radiocarbon-dated cal. AD 1440-1480 and Morne Souffleur was probably inhabited around the same time. Late Ceramic B Anse à la Gourde provided a median date of AD 1350.

The lower number of villages suggests that settlement mobility was low. A similar decrease has also been witnessed

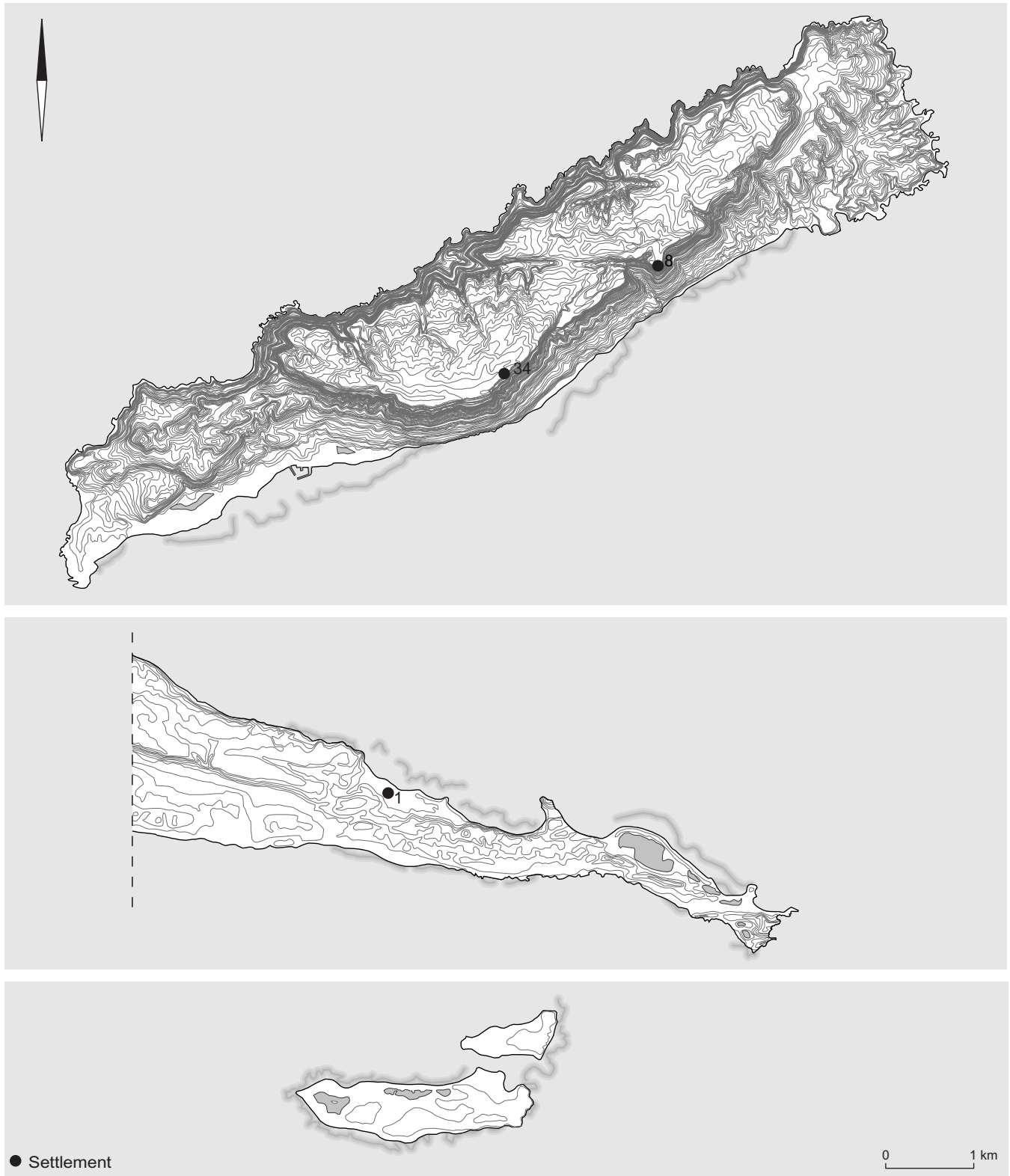


Fig. 6.11. Late Ceramic B sites in the Eastern Guadeloupe micro-region.

outside the Eastern Guadeloupe micro-region. Except for the Plage de Roseau settlement near Capesterre Belle-Eau (Richard 2002, 2003), no Late Ceramic B settlements have been discovered on Guadeloupe (fig. 6.12). This is remarkable as Columbus observed several small Amerindian settlements along the coast of Guadeloupe (Jane 1930) and in 1511 and 1512 Amerindians on Guadeloupe were reported to be so numerous as to dare to attack the Spanish on Puerto Rico (Yacou 1993). Only a few Late Ceramic B settlements have been found on other Lesser Antillean islands as well. Kelbey's Ridge 2 on Saba (Hoogland 1996) and Sandy Ground, Sandy Hill and Shoal Bay East on Anguilla (Crock 2000; Crock and Petersen 1999) are among the very few. In addition, Curet *et al.* (2004) and Siegel (2004) have reported a similarly significant decrease of number of settlement for the Loíza and Maunabo valleys on Puerto Rico.⁹ Apparently, population decline started well before the conquest of the region by Europeans, but the factors leading to this process of Late Ceramic B depopulation of the Lesser Antilles are poorly understood. The most important factor was probably a political one. It relates to the influence of developing *cacicazgos* on the Greater Antilles, which stretched at least as far as the Virgin Islands (Righter 2001), Saba (Hoogland and Hofman 1999, 2004) and Anguilla (Crock 2000). The presence of so-called ritual objects in Chican Ostionoid/Classic Taino style on Guadeloupe and Martinique suggests that this influence extended even further southwards (Allaire 1990; Hoogland and Hofman 2004). Curet *et al.* (2004) proposed for Puerto Rico that larger political centres attracted people because of the greater social opportunities they offered and that this caused emigration of local groups in the Lesser Antilles. It is imaginable that, for example as a result of the population increase – and possibly of a concomitant decline in the availability of food resources – that took place during the Late Ceramic A, people started to feel socio-politically dissatisfied and were therefore attracted to the complex societies on the Greater Antilles.

Another new development is the reduction in site type diversity; the landscape was less intensively used (fig. 6.11).¹⁰ People inhabiting the La Désirade settlements did not need strategic outposts since they located their villages strategically. No temporary camps or special activity sites were established. Special locations for carrying out ceremonial activities were absent as well and the Late Ceramic A trend of ceremonial behaviour taking place in larger areas of the landscape outside the settlements apparently came to an end. Ritual and economic activities were once again incorporated within the settlements, as they were during the Early Ceramic B. However, the Late Ceramic A preference for carrying out ceremonial activities in eye-catching locations on the central plateau of La

Désirade continues. The presence at both Morne Cybèle-1 and Morne Souffleur of a human face mask that probably had *zemi*-like functions suggests that ceremonial activities were conducted there. The unique pottery style and the high percentage of decoration, together with the impressive site locations, reinforces this idea (section 5.5.1). There is no evidence of ceremonial activities at Anse à la Gourde and it is not clear whether its burial area, that was so prominently present during the Late Ceramic A, was still being used.

As Late Ceramic B settlements are reputedly rare in the Lesser Antilles, it is not surprising that only one other settlement, the coastal village of Plage de Roseau on Basse-Terre, has been recorded on Guadeloupe and its nearest neighbouring islands (fig. 6.12). It remains to be questioned, however, to what degree this inventory would be either supplemented or confirmed upon archaeological investigation of elevated inland locations, which were obviously popular during this period. The Eastern Guadeloupe situation corresponds well with settlement patterns on Guadeloupe and its nearest neighbouring islands and on other islands of the Lesser Antilles: the number of settlements decreased dramatically when compared to the Late Ceramic A, as did site type diversity. There are no temporary habitation or special activity sites. In addition, there seems to be a preference for formerly uninhabited, defensible locations on elevations (*cf.* Kelbey's Ridge 2 on Saba; Hoogland 1996). This suggests that the socio-political situation demanded secure settlement locations. This may have been true for Eastern Guadeloupe as well. Although no archaeological evidence has been found for conflicts or hostile situations, it is imaginable that the simple fact that people left the Eastern Guadeloupe micro-region, as a result of the attraction of *cacicazgos* on the Greater Antilles, made for an increasingly tense social situation in Eastern Guadeloupe. According to Breton (1978[1647]) Amerindians on Guadeloupe preferred to live in areas that were not easily accessible in order to avoid surprise attacks by their enemies, who raided them frequently (see also Hofman *et al.* 2004). Raids could have occurred more easily and frequently as allied groups were more distant. The lower availability of marriage partners close-by may have compounded this situation and may have caused raids to be carried out for the single purpose of abducting young men and women.

The fact that ceremonial activities and other special activities were once again concentrated in the settlements may be attributable to such weakened sense of safety. People possibly tried to limit to leave the settlement and the security of the group to a minimum. The fact that ceremonial activities were carried out is not surprising, as these tend to become more important as local situations become more hostile.

It is not clear whether this situation concerned internal hostilities between groups living on the Lesser Antilles or whether groups on the Mainland or the Greater Antilles were involved.

6.5.3 Settlement structure

There is no information on Late Ceramic B settlement structure in the Eastern Guadeloupe micro-region. Kelbey's Ridge 2 on Saba, measuring 2000 m², may serve as an example. Four to five households, each inhabiting a house compound adjacent to a *plaza*, probably occupied this settlement, for 30 to 50 years. Compounds consisted of a cooking hut and small round and oval residential structures

with diameters of 6 to 8 m and surface areas of 57 to 80 m². The houses, with estimated lifespans of 10 to 15 years, were possibly inhabited by extended families consisting of 11 to 15 persons (Hoogland 1996). It is an educated guess – for lack of real calculations – that similar numbers of people may have inhabited Morne Souffleur (13-19 inhabitants; table 6.3).¹¹

6.5.4 Settlement territories and hierarchies

Late Ceramic B settlements are situated at great distances from each other and probably had large territories (fig. 6.11). Anse à la Gourde is still situated in an 'optimum setting' (*sensu* Petersen and Crock 1999); (table 5.1). Morne

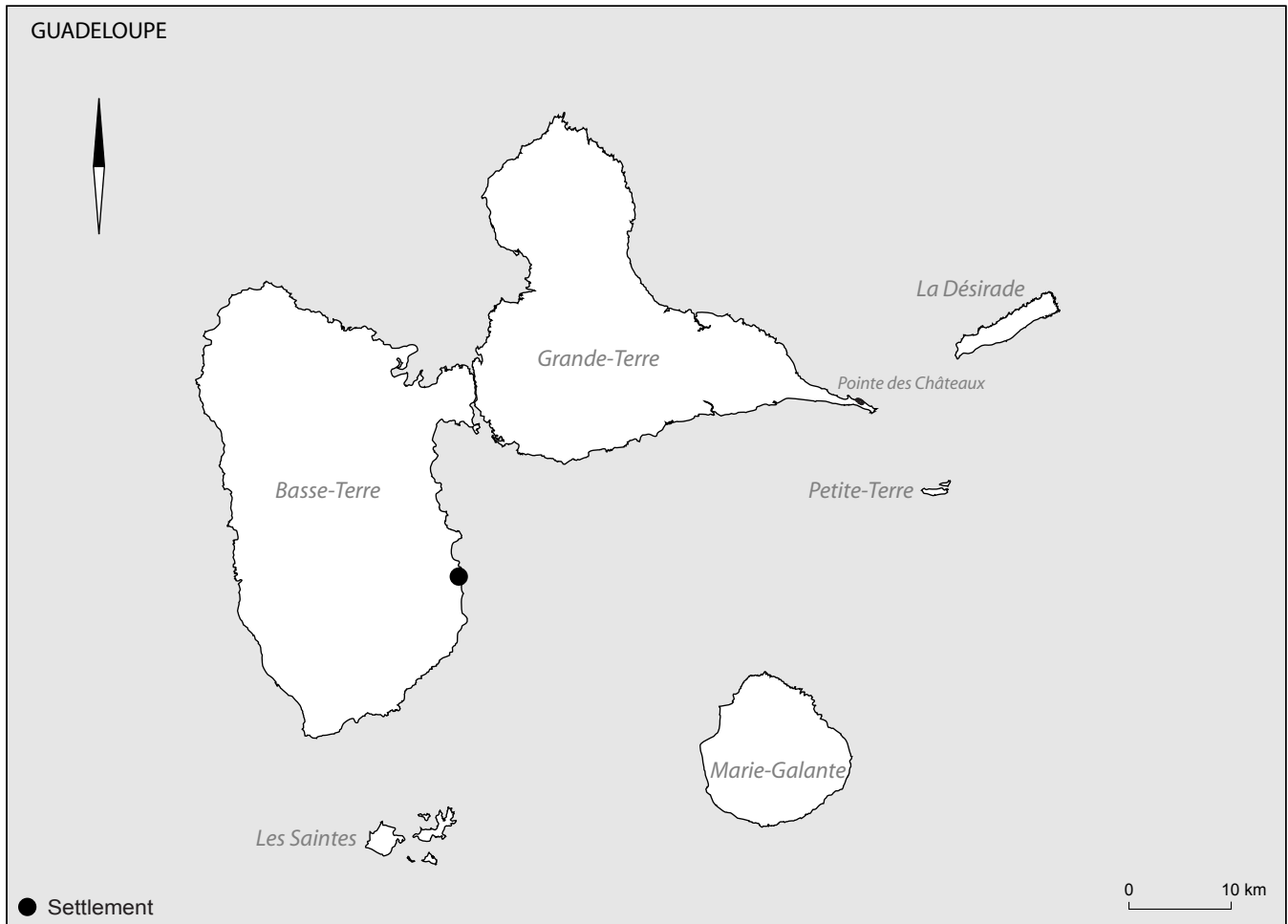


Fig. 6.12. Late Ceramic B sites on Guadeloupe and its nearest neighbouring islands (for sites in the Eastern Guadeloupe micro-region see fig. 6.11).

Cybèle-1 and Morne Souffleur occupy impressive and well-defensible locations on La Désirade's central plateau. The inhabitants of these settlements faced considerable challenges in obtaining fresh water and exploiting marine resources (table 5.1). Since there are no other contemporary habitations, they were free to choose village locations and they apparently deliberately selected settings well suited to observation and defence purposes or with spiritual appeal.

Although there is hardly any evidence of subsistence practices, it appears that inhabitants of the micro-region still practised a mixed economy of root crop horticulture, hunting of land animals, fishing, catching birds and collecting molluscs, fruits, wild tubers and seeds. Contrasting to preceding periods, inhabitants of the La Désirade settlements now exploited resources at quite some distance from their villages. Although they could continue cultivating root crops and tubers near their settlements, the procurement of fish, shellfish (mainly *Cittarium pica* and *Strombus* sp.) and coral required trips to the sea over at least an hour walk. Wild tubers, seeds and fruits could be collected on the plateau, in the surroundings of the settlements, where mammals could be caught as well. The villages were not close to fresh water (table 5.1). Most raw materials for lithic artefacts were locally available on La Désirade, and the lithic workshops were probably used, but non-local red chert and St. Martin chert and flint were also obtained.

Anse à la Gourde had the most attractive setting (table 5.1), was inhabited longer than any other village in Eastern Guadeloupe and it continued to play a role in regional exchange systems. Although the La Désirade settlements lacked these characteristics, both yielded a remarkable shell mask, which is considered a high-status artefact, usually related to activities of a ritual specialist or local leader. Petersen and Crock (1999) suggest that such objects occur in what they called 'optimum settings'. In their definition, the La Désirade settlements can hardly be considered to be in 'optimum settings' however. It has already been mentioned

above (section 6.5.2) that the well-defensible settlement locations were probably chosen for safety reasons. The impressiveness of the eye-catching settlement locations probably greatly enhanced the practical advantages – related to observation and control – they offered. The La Désirade settlements probably mainly had a local significance, limited to the groups inhabiting the settlements. They restricted their activities to the settlements as much as they could, probably for safety reasons. The micro-regional and regional significance of the settlements was probably their mere presence, which indicates that the region was not completely deserted and that there were still people who managed to survive and to live their lives as they had been doing since the first occupation of Eastern Guadeloupe.

6.5.5 Micro-regional and regional interaction

6.5.5.1 Style zones

Late Ceramic B pottery from the micro-region is affiliated to the late Suazan Troumassoid subseries (section 4.2.4; fig. 6.13), but influences from the Venezuelan mainland have been suggested as well (Allaire 1996; Hofman *et al.* 2004). The diversity in pottery styles, which had emerged during the Late Ceramic A, ended (fig. 6.13).

Because of lower population densities, inhabitants of Eastern Guadeloupe had to sustain contact networks that extended over larger areas when compared to the Late Ceramic A. It is hypothesised that these contacts intensified, as a very small number of villages, dispersed over a very large region, had to arrange mutual marriage partners and political alliances. A small micro-style area and related short but intensive contact lines continued to exist on La Désirade (fig. 6.13). Strong stylistic similarities have been observed between pottery from Morne Cybèle-1 (Hofman *et al.* 2004) and that of Morne Souffleur (appendix 3), in terms of shapes of vessels, griddle bases and rims, colour and decoration (mainly punctation), and firing and surface finishing techniques. Anse à la Gourde pottery is slightly

Site	Site area	Site area - 10%	N inhabitants following Myers (1973)	N inhabitants following Roosevelt (1980)
Morne Cybèle-1	700	630	3	5
Morne Souffleur	2800	2520	13	19
Anse à la Gourde	Unidentified	Unidentified	Unidentified	Unidentified

Table 6.3. Estimated numbers of inhabitants of the Late Ceramic B settlements in the Eastern Guadeloupe micro-region.

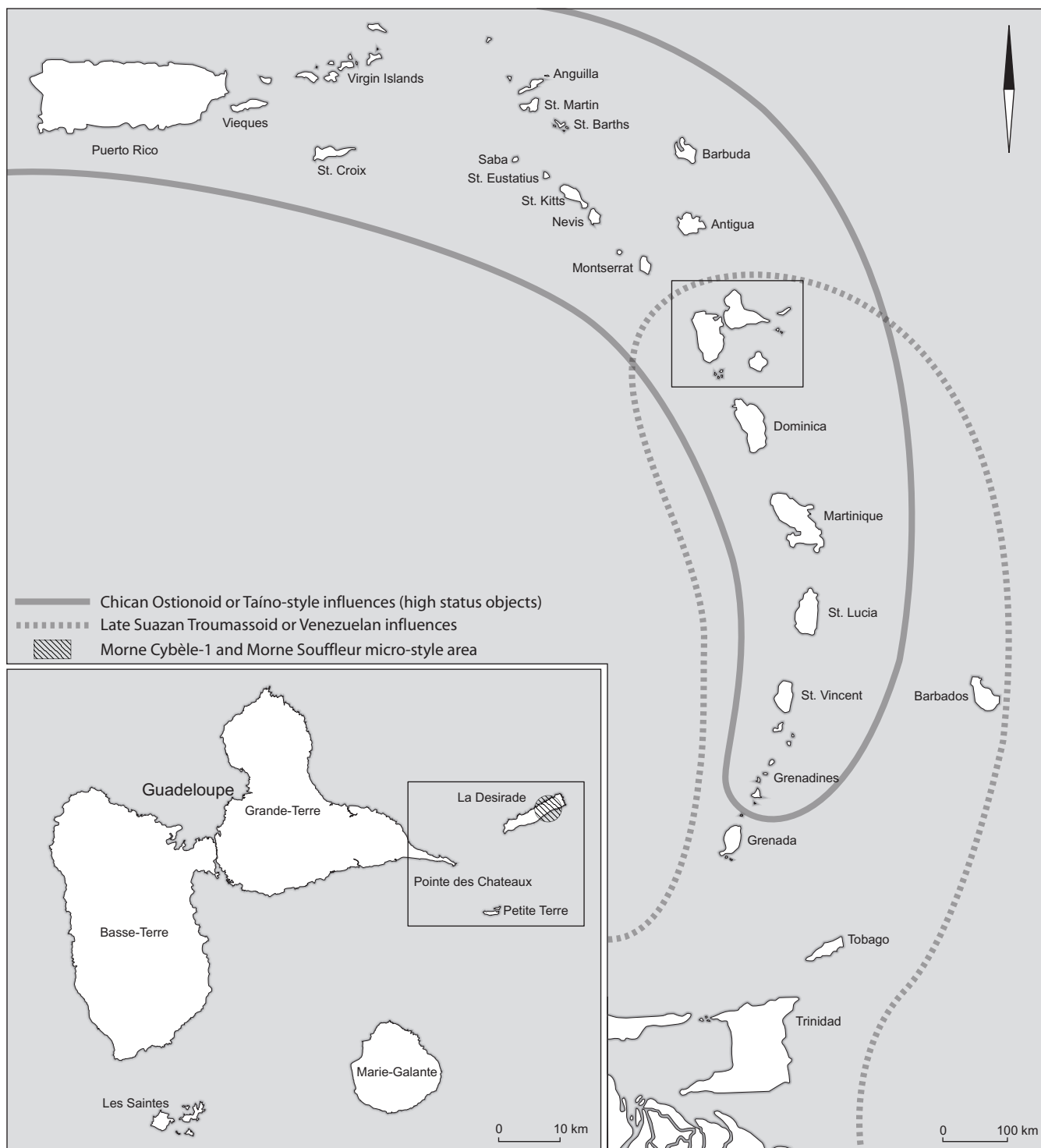


Fig. 6.13. Late Ceramic B style zones and the Morne Souffleur and Morne Cybèle-1 micro-style area (detail).

different from Morne Cybèle-1 and Morne Souffleur ceramic complexes (Hofman *et al.* 2001^a:172). There was probably no interaction between this village, dated slightly earlier, and the La Désirade settlements. Vessel shapes and decoration modes of the pottery from the possibly contemporaneous Plage de Roseau settlement on Basse-Terre (Richard 2002:52-54) differ from those of Morne Cybèle-1, Morne Souffleur and Anse à la Gourde. Inhabitants of this settlement apparently did not participate in the same network either. Late Ceramic B pottery from settlements in the northern Lesser Antilles is affiliated with the Chican Ostionoid subseries, and is thus completely different from the La Désirade ceramic complexes.¹²

The La Désirade settlements as well as the Plage de Roseau village on Basse-Terre yielded Chican Ostionoid or Taíno-style high-status objects. Both La Désirade settlements yielded a shell mask (fig. A3.38; Hofman *et al.* 2004: fig. 17) and the Plage de Roseau village yielded a frog-shaped bowl from manatee-bone (Richard 2002:52-54). Shell masks have been found from the Greater Antilles to as far south as the Grenadines (fig. 6.13).¹³ It is remarkable that the styles are very different, even though some general characteristics can be distinguished, including decorated headbands and emphasised eyes. This indicates that contacts between the La Désirade settlements and villages on the northern Lesser Antilles or even on the Greater Antilles actually may have existed (fig. 6.13). Local groups were apparently incorporated in a so-called Taíno-related interaction sphere expanding eastwards from the Greater Antilles, as were inhabitants of Anguilla (Crock and Petersen 2004) and Saba (Hofman and Hoogland 2004; Hoogland and Hofman 1999). According to Allaire (1990), this network may have been based on esoteric interaction or on socio-political or economic expansion of one of the Greater Antillean *cacicazgos* (Hoogland and Hofman 1999). The La Désirade masks might represent increased reach of Greater Antillean influence spheres, compared to Anguilla for example, which had been in relatively close contact with Greater Antillean societies from an earlier stage onwards.

6.5.5.2 *Procurement and distribution of non-local raw materials and finished products*

Short distance trips were still organised by inhabitants of Anse à la Gourde, aimed at the procurement of La Désirade pebbles, magmatic rock, and red chert. The lithic workshops at La Désirade were probably still used for exploitation of the latter (fig. 6.14). Considering the growing quantity of Antigua flint (Knippenberg 2001^b:189, 217-219), however, this material was still preferred over La Désirade red chert.

The inhabitants of Anse à la Gourde and Morne Souffleur obtained non-local rock from outside the micro-

region as well. Access to Antigua flint and finished green chert tools continued and the micro-region thus remained part of the Guadeloupe-Anguilla exchange network (fig. 6.14).

6.6 SUMMARISING REMARKS

6.6.1 Introduction

The present study has focussed on pre-Columbian social organisation and interaction by investigating settlement patterns in a micro-region consisting of Pointe des Châteaux, La Désirade and the islands of Petite Terre. Special features of the project are the scale and the intensity of the regional investigation carried out: it concentrated on a very small region and the required data have been collected through systematic and highly intensive surveys, covering coastal as well as inland areas. The surveys have provided a detailed regional site inventory. The resulting archaeological database, representing different site types, locations and periods, is considered to be representative for the selected micro-region, although it does have its limitations (section 5.2). A quick comparison between settlement patterns in the Eastern Guadeloupe micro-region and those on Guadeloupe and its nearest neighbouring islands (sections 6.3.2, 6.4.2 and 6.5.2) demonstrates that the settlement patterns observed in the micro-region are most likely representative for a larger region.

The fieldwork greatly contributed to the *Carte Archéologique* site inventory project for Guadeloupe (section 2.1.4), as a large number of sites, including habitation sites, lithic workshops, ceremonial sites, a strategic outpost, and indistinct sites have been discovered. It exhibits shortcomings in particular in the understanding of indistinct sites. It has been postulated in this study that these sites may have been used as temporary habitation sites, sites related to gardening activities, and cave sites used for shelter.

One of the merits of the East-Guadeloupe project is that it documents the complexity of pre-Columbian settlement patterns. It did not only focus on large villages. Diversified settlement patterns have been observed instead, and dynamic diachronic changes were distinguished.

6.6.2 A pre-Columbian settlement history of the Eastern Guadeloupe micro-region

The first occupation of the Eastern Guadeloupe micro-region took place during the Early Ceramic B period. People inhabited Pointe des Châteaux and La Désirade in large permanent coastal settlements. The areas surrounding their villages obviously fulfilled their subsistence and

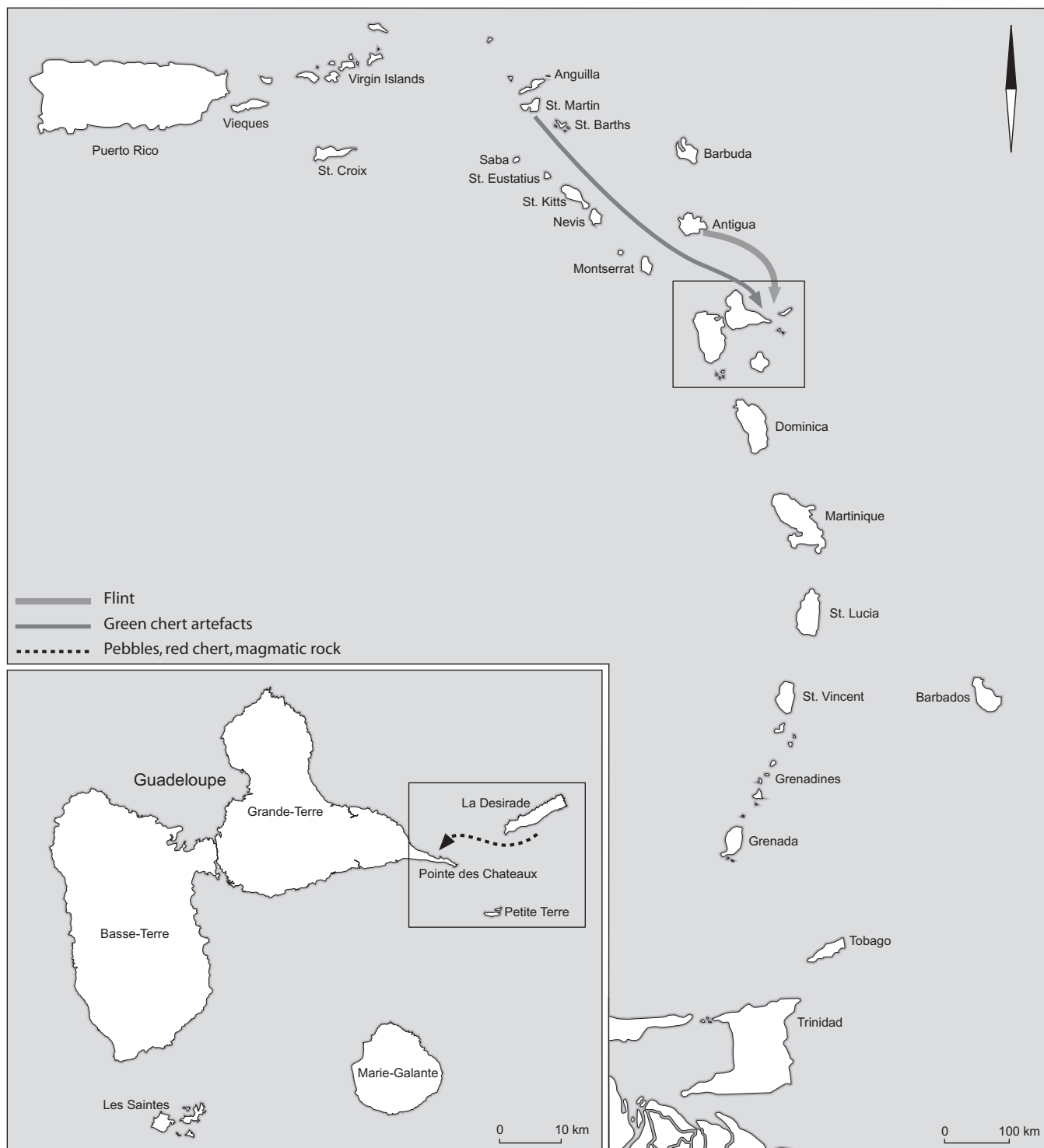


Fig. 6.14. Late Ceramic B long distance and short distance (detail) procurement of non-local materials and finished products.

non-subsistence needs. They used these villages for most socio-political, economic and ceremonial activities; they apparently did not establish special places away from the settlements. It is possible that Anse à la Gourde and Les Sables were more prominent in this respect when compared to the other villages.

Inhabitants of the Early Ceramic B villages had pottery that is highly comparable in style with that used by inhabitants all over the Antilles, and they 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 they procured finished green chert tools directly from the inhabitants of production sites on St. Martin.

The number of villages increased during the Late Ceramic A, especially after AD 1000. 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 in the landscape. Although most settlements were still situated along the coast, some La Désirade villages were located inland and proximity of fresh water sources 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. Greater parts of the landscape were used for ceremonial, socio-political and economic activities, which were more restricted to the settlements themselves during the preceding phase. Anse à la Gourde evolved into a central settlement. This village, and particularly its burial area, probably had a central ceremonial function in the micro-region. Ceremonial activities were also carried out at Voûte à Pin and Chemin de M. De l'Orme, situated at remarkable locations on the central plateau on La Désirade and at quite some distance from the villages. At Anse à la Gourde, burials associated with residential structures, variation in mortuary practices and a more individualised treatment of the deceased suggest that social differentiation began to play a role and that incipient social stratification developed.

Long distance contacts with the northern and southern Lesser Antilles continued to exist, although they appear to have been less frequent than during the Early Ceramic B. Local groups were clearly involved in frequent

and intensive short distance contacts as well, stimulated by an increased population that had successfully adapted to the island environment. Access to and participation in exchange networks appeared to have been less restricted. The inhabitants of Anse à la Gourde played a central role in these networks, that stretched as far as the South American mainland and the Greater Antilles, incorporating Barbados, the Grenadines, Basse-Terre (Guadeloupe), Montserrat, and Antigua. Together with the Anse à la Gourde residents, inhabitants of À l'Escalier and Site Du Phare also participated in contact networks in which finished green chert artefacts circulated. In addition, trips over shorter distances (to La Désirade) were still undertaken as well.

From c. AD 1200 onward, the pre-Columbian landscape of the Eastern Guadeloupe micro-region became desolate and was less intensively used: only three small villages were inhabited during the latest part of the pre-Columbian period. This Late Ceramic B 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 offered by complex social societies on the Greater Antilles.

The inhabitants of Morne Cybèle-1 and Morne Souffleur established their villages in impressive and well-defensible locations on the La Désirade plateau. They therefore had to cover the equivalent of at least an hour's walk in order to exploit coastal resources, which they continued using.

Ritual and economic activities were once again restricted to the settlements, particularly to Morne Cybèle-1 and Morne Souffleur. It is not clear whether Anse à la Gourde still had the central function 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.

6.6.3 Final remark

The intensive and systematic investigation of the Eastern Guadeloupe micro-region was an efficient means to make a contribution to our understanding of social organisation and interaction of the pre-Columbian Amerindians who once inhabited Pointe des Châteaux, La Désirade and Petite Terre. This understanding clearly demands the diachronic

study of site patterns complementary to the more traditional study of individual coastal habitation sites. The systematic survey of the micro-region provided site inventories that surpass in potential the research questions formulated for the present study. These inventories can be used without the interpretations imposed upon them during the present research as the raw data, as presented in appendices 2-4, are available to everyone willing to study any aspect of pre-Columbian life in Eastern Guadeloupe.

NOTES

- 1 Inland pre-ceramic sites, such as Norman Estate on St. Martin (Knippenberg 1999) and Plum Piece on Saba (Hofman and Hoogland 2003) are discovered only incidentally.
- 2 Site areas of the Early Ceramic B occupations in multi-component sites could not be estimated (section 5.2).
- 3 After Haury, E.W., 1976, *The Hohokam: desert farmers and craftsmen*. University of Arizona Press, Tucson (cited in Hoogland 1996:160).
- 4 On La Désirade, compact decalcification clay deposits occur in eroded cavities on the central plateau and fine but very fat clays can be collected from the waterside west of the marina and the borders of the salinas (personal observations 1999-2000). Isendoorn (personal communication 2005) discovered a clay deposit in the eastern part of La Désirade. On Pointe des Châteaux fine and fat clays can be collected from deposits underneath beach-rock formations on the northern coast and Bloo (1997:126-131) and Isendoorn (personal communication 2005) collected clay samples from shallow karst depressions in the vicinity of Anse à la Gourde and Anse Tarare.
- 5 Settlement dimensions range between 1200 m² and 50,400 m².
- 6 “[...] Fouillant la terre où ils sçavent qu’il ya a quelqu’un d’enterré, il en tirent des os, ou du poil du trespasé, le mettent dans une calebace qu’ils bouchent de coton, et les diable leur parle par ces os ou cheveux et se disent être l’âme du deffunt. Voire avec ces os, ils font diverses sortes de charmes pour se venger de leur ennemys” (Breton 1978[1647]:58).
- 7 Dates provided for Pointe Helleux include cal. AD 1230-1326, cal. AD 1028-1179 or AD 1188-1208 and Pointe Canot and Pointe de la Couronne Conchou have been tentatively dated AD 900-1200 based on the presence of Mamoran/Suazan Troumassoid pottery traits (Hofman *et al.* 2004).
- 8 The exact lay-out and dimensions of Late Ceramic B Anse à la Gourde have not been identified (Pater and Teekens 2004:309).
- 9 Interestingly, the number of sites in the Manati Valley on Puerto Rico increased at the same time (Siegel 2004).
- 10 Attested to by a decrease in the amount of off-site material.
- 11 The estimated number of inhabitants of Morne Cybèle-1 (3-5 inhabitants) is probably not accurate as a result of site destruction (table 6.3).
- 12 This has been observed at Sandy Ground, Sandy Hill and Shoal Bay East on Anguilla (Crock 2000; Crock and Petersen 1999) and Kelbey’s Ridge 2 on Saba (Hofman 1993).
- 13 Apart from on La Désirade, shell masks have also been found on Cuba (Dacal Moure and Rivero de la Calle 1996), Puerto Rico (Alegria 1978), the Dominican Republic (Bercht *et al.* 1997), St. Croix, Anguilla and Antigua (Crock 2000; Crock and Petersen 1999), Marie-Galante and the Grenadines (Sutty 1991).

