APPENDIX 3. LA DÉSIRADE SITE CATALOGUE

3.1 À L'ESCALIER (97110-001; SC23)

3.1.1 Site location and preservation

The À l'Escalier site (x: 709,400; y: 1804,600) is situated in a cultivated terrain very close to the beach on the southern coastal plain of La Désirade (fig. 5.2). Bodu surveyed the site in 1985 but Père Barbotin and Edgar Clerc already knew of its existence. The site was restudied in 1999. Bodu described the site as a pre-Columbian coastal habitation site, measuring approximately 100 m^2. Site dimensions were estimated to be 40 m from north to south and 60 m west to east in 1999. Although in 1997 hardly any archaeological material was visible on the surface, Bodu described a very dense surface concentration in 1984 and during the 1999 survey an important concentration could be identified again. The archaeological surface material consists of heavily fragmented ceramics, lithic and coral artefacts and shellfish remains, including *Cittarium pica* and *Strombus gigas*. Almost no off-site material was found. Cultivated plants and the house of Mr. Robin, the owner of the terrain, cover 41-60 percent of the soil, which consists of loose, coarse, well-drained sand. Surface visibility is very good. Unfortunately, only a very small part of the site actually appears to have been preserved and the upper levels (0-30 cm) of this part, which is situated in the owners garden, are perturbed as a result of cultivation of the terrain. Lower-lying layers are very well preserved.

3.1.2 Test units and stratigraphy

Two 2 x 2 m units (fig. A3.1) were excavated in the owners garden where the densest distribution had been observed. Although a lot of archaeological material was found throughout all the levels up to 80 cm depth, the densest concentration of material was found between 30-60 cm depth. Auger tests have been made in the four corners and the centres of the units as sterile layers of beach sand were being excavated from 80 cm depth onwards. In unit 1, this was done at a depth of 95 cm and in unit 2 at a depth of 80 cm. Groundwater was reached in unit 1 at 220 cm depth and in unit 2 at 160 cm depth. Bedrock has not been reached. Unfortunately, not all the archaeological material from levels 7 and 8 could be separately excavated and collected due to severe and unforeseen time constraints. This was the result of the sudden withdrawal of permission by the owner, who expected that excavation dust would hinder laundry activities. The southeast corner of unit 1was located at 709278.089; 1804592.065; 1.75 (Guadeloupe - Ste. Anne system) or 16°18′38.0076″; -61°2′42.7077″; -41.79 (WGS84). The southeast corner of unit 2 was located at 709276.035; 1804596.744; 1.88 (Guadeloupe - Ste. Anne system) or 16°18′38.1604″; -61°2′42.7754″; -41.67 (WGS84).

3.1.3 Archaeological materials

The material described includes the 1985 and 1999 surface collections and the material from the 1999 test units.

3.1.3.1 Pottery

The pottery collection includes the 1985 surface collection made by Bodu and the 1999 surface collections and material from the test units. The Bodu surface collection consists of 316 sherds, mostly body sherds (64.2%), weighing 13,874 g

	Number	Number %	Weight	Weight %
Rim	75	23.8	3180	22.9
Body	203	64.2	7573	54.6
Base	13	4.1	776	5.6
Griddle	14	4.4	1240	8.9
Appendage/other	11	3.5	1105	8.0
Total	316	100.0	13,874	100.0

Table A3.1. Number, percentages and weight (g) of sherds from the 1985 À l'Escalier collection.

(table A3.1). The appendages/other category represents 3.5% of the sample. It includes a handle, lugs, a pot-stand and griddle legs (fig. A3.2). A total of 77 sherds has red slipped surfaces (24.4%) and 17 sherds (5.4%) are decorated by incision, geometric modelling combined with incision on red slip, zoomorphic modelling, finger indentation and nubbins (fig. A3.3). Most of the bases are flat or concave, while the griddles are straight, legged or unidentified (tables A3.2-A3.5).

The morphological description of the pottery has been based on the analysis of 66 rims larger than 5 cm. These demonstrate that the characteristic vessel shapes

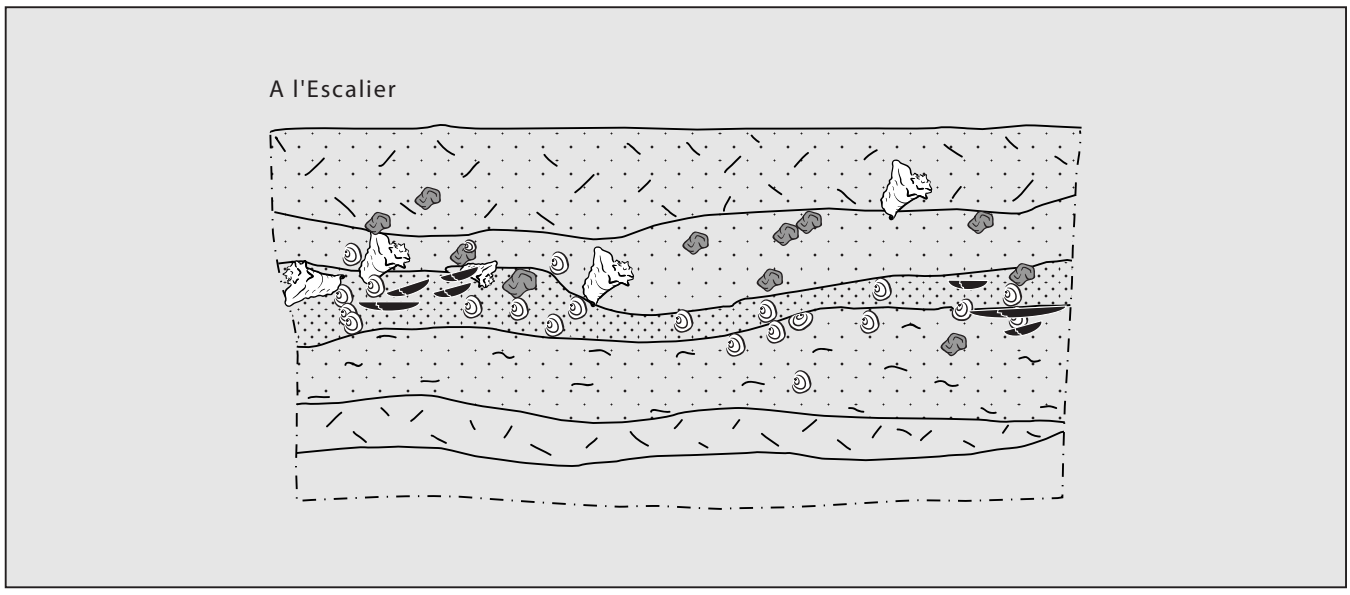


Fig. A3.1. À l'Escalier, unit 2 (2 x 2 m), east section.

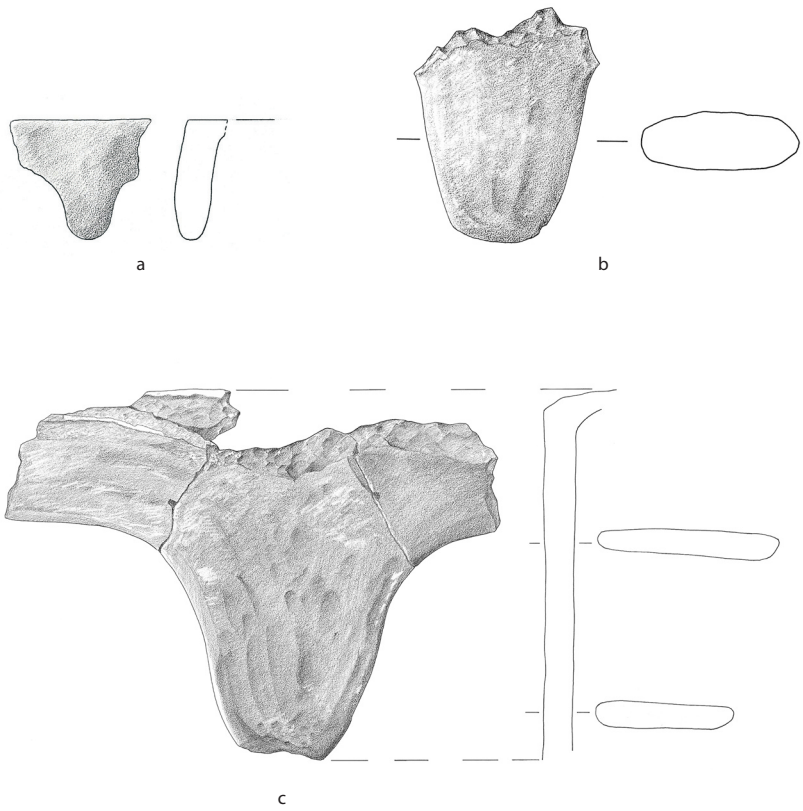


Fig. A3.2. À l'Escalier griddle legs (a: surface, scale 1:2; b: unit 2, level 5, scale 1:3; c: unit 2, level 4, scale 1:4).

	Number	Number %
Handle	1	9.1
Lug	5	45.5
Pot-stand	1	9.1
Griddle leg	4	36.3
Total	11	100.0

Table A3.2. Number and percentages of sherds within appendages/other categories from the 1985 À l'Escalier collection.

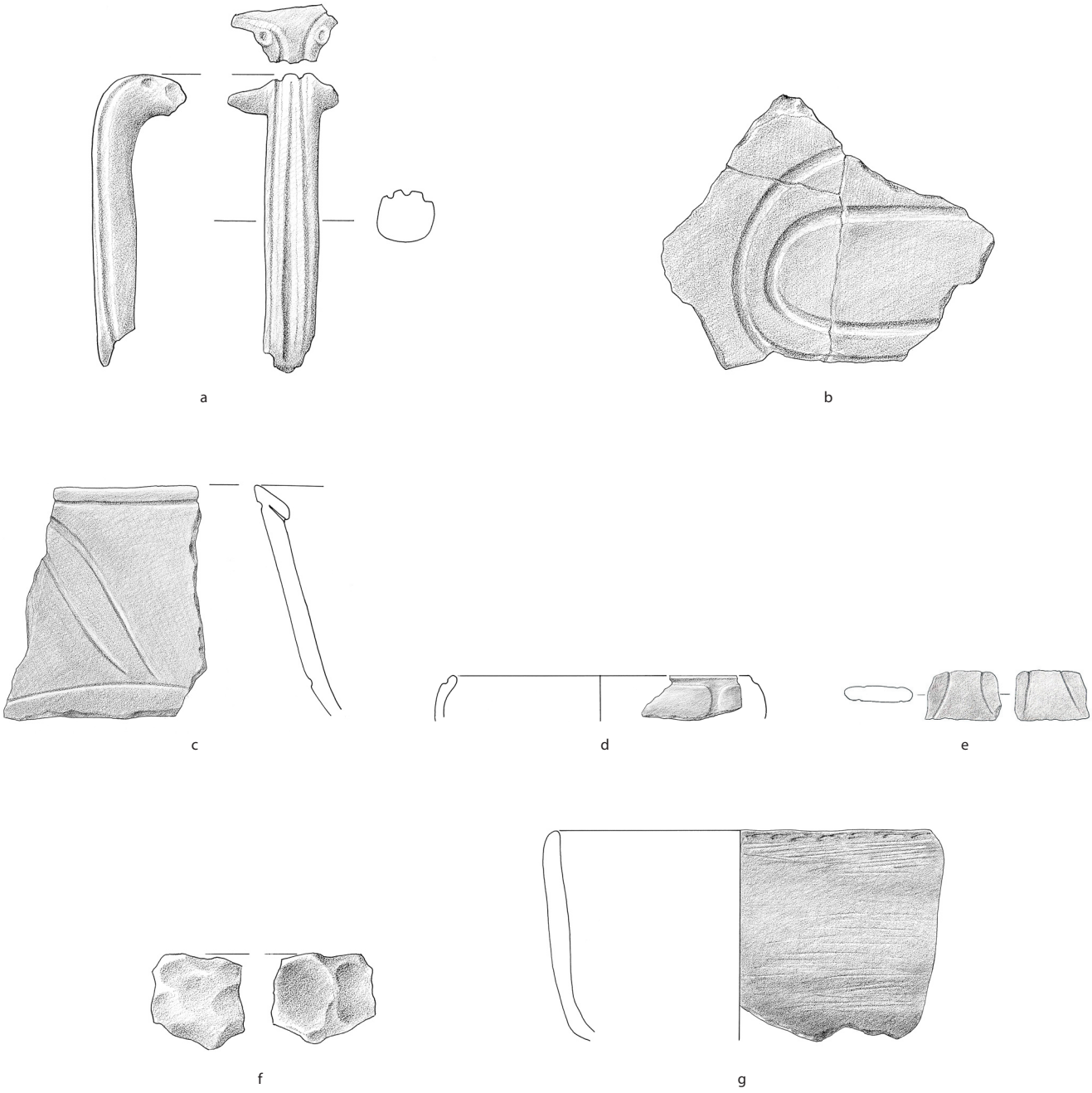


Fig. A3.3. Sherds from À l'Escalier, decorated by zoomorphic modelling (a: unit 2, level 5, scale 1:2), incision (b: unit 2, level 3, scale 1:2; c-d: unit 2, level 5, scale 1:3; e: surface, 1:3), modelling (f: unit 2, level 6, scale 1:3) and by finger indentation (g: unit 1, level 6, scale 1:3).

	Number	Number %
Incision	13	76.4
Modelling (geometric)	1	5.9
Modelled incised *appliqué* (anthropomorphic)	1	5.9
Finger indentation	1	5.9
Nubbins	1	5.9
Total	17	100.0

Table A3.3. Number and percentages of sherds with particular decoration modes in the 1985 À l'Escalier collection.

	Number	Number %
Flat	8	61.5
Concave	3	23.1
Pedestal/annular	1	7.7
Unidentified	1	7.7
Total	13	100.0

Table A3.4. Number and percentages of sherds within base shape categories from the 1985 À l'Escalier collection.

	Number	Number %
Straight	3	21.4
Overhanging	1	7.2
Legged	3	21.4
Unidentified	7	50.0
Total	14	100.0

Table A3.5. Number and percentages of sherds within griddle shape categories from the 1985 À l'Escalier collection.

	Number	Number %
Jar with unrestricted simple contour	7	10.6
Bowl with unrestricted simple contour	30	45.5
Dish with unrestricted simple contour	18	27.3
Bowl with restricted simple contour	8	12.1
Bowl with unrestricted composite contour	2	3.0
Unidentified	1	1.5
Total	66	100.0

Table A3.6. Number and percentages of sherds within vessel shape categories from the 1985 À l'Escalier collection.

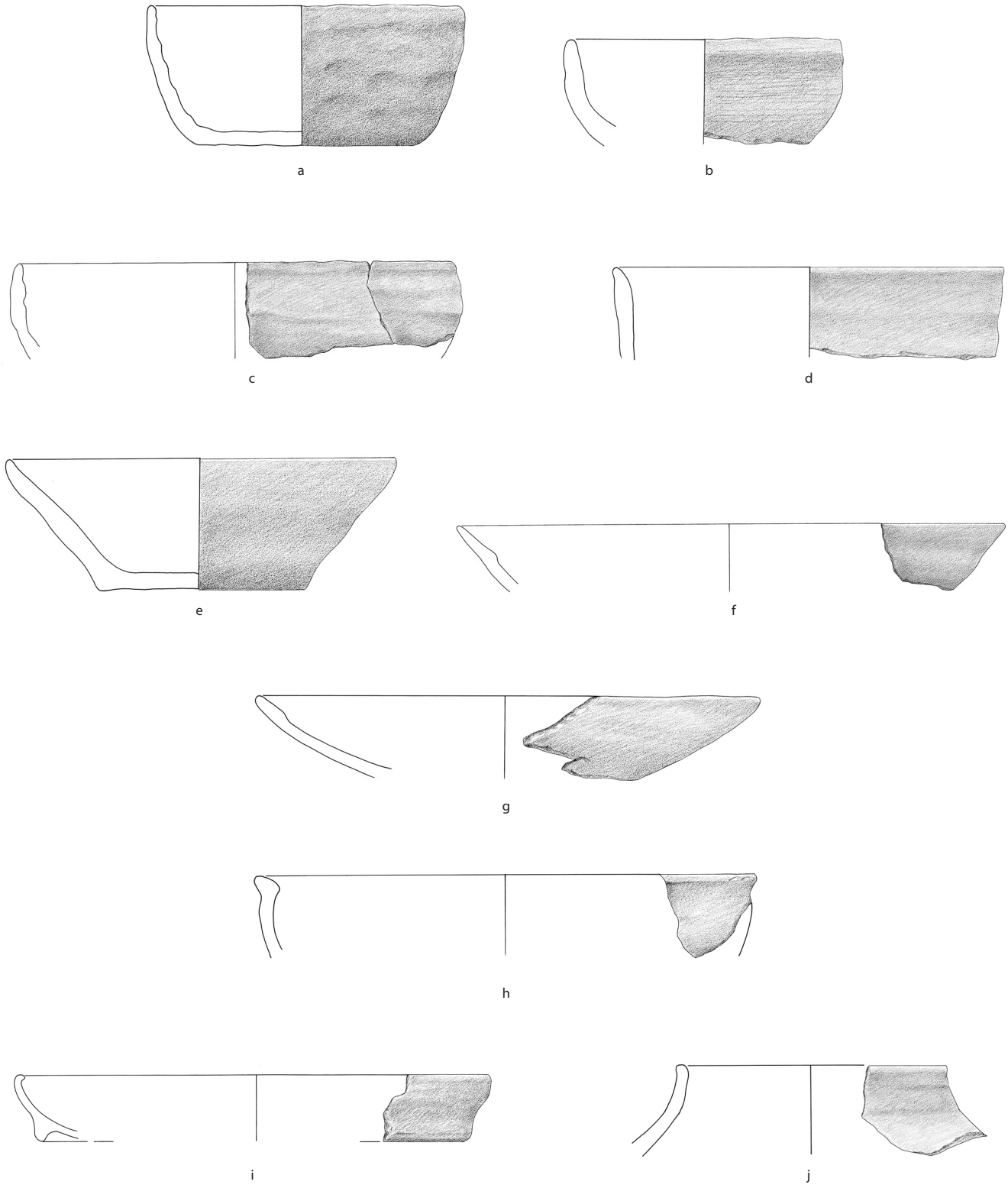


Fig. A3.4. À l'Escalier vessel shapes, scale 1:3 (a: unit 1, level 5; b: unit 2, level 3; c: unit 1, level 6) and scale 1:4 (d: unit 2, level 5; e: unit 1, level 5; f: unit 1, level 6; g: unit 1, level 6; h: unit 2, level 1; i: surface; j: unit 1, level 6).

	Number	Number %
Rounded	45	68.2
Flattened	3	4.5
Inward thickened	17	25.8
Outwardly bevelled	1	1.5
Total	66	100.0

Table A3.7. Number and percentages of sherds within rim shape categories from the 1985 À l'Escalier collection.

	Number	Number %
6-8 mm	22	33.3
9-11 mm	37	56.1
12-16 mm	7	10.6
Total	66	100.0

Table A3.8. Number and percentages of sherds within wall thickness categories from the 1985 À l'Escalier collection.

	Number	Number %
11-20 cm	13	19.7
21-30 cm	19	28.8
31-40 cm	2	3.0
41-50 cm	1	1.5
Unidentified	31	47.0
Total	66	100.0

Table A3.9. Number and percentages of sherds within orifice diameter categories from the 1985 À l'Escalier collection.

	Number	Number %
Dark gray-black	1	1.5
Dark brown/very dark brown	25	37.9
Reddish brown	32	48.5
Red	8	12.1
Total	66	100.0

Table A3.10. Number and percentages of sherds within exterior surface colour categories from the 1985 À l'Escalier collection.

include jars, bowls and dishes with unrestricted simple contours (83.4%) and bowls with restricted simple contours (12.1%); (table A3.6; fig. A3.4). Dominant rim shapes are rounded (68.2%) and inward thickened (25.8%). Wall thicknesses range between 6-8 mm (33.3%), 9-11 mm (56.1%) and 12-16 mm (10.6%) and orifice diameters range mainly between 11-20 cm (19.7%) and 21-30 cm (28.8%), while 47.0% remains unidentified. Surface colours are predominantly reddish brown (48.5%), dark brown/very dark brown (37.9%) and red (12.1%). The dominant firing technique is incomplete or relatively good oxidation (86.4%). Surface finishing is predominantly characterised by burnishing (74.4%) and for 10.6% the surface finishing could not be identified (tables A3.7-A3.12).

The pottery collection in 1999 consisted of 2978 sherds, mostly body sherds (72.9%), weighing 77,159 g (table A3.13). The appendages/other category represents 0.6% of the sample. It includes lugs, pot-stands, spindle whorl preforms made of body sherds that have not yet been drilled, griddle legs and unidentified appendages (table A3.14). Two complete vessels were found as well (<0.1%). A total of 752 sherds has red slipped surfaces (25.3%) and 36 sherds (1.2%) are decorated, most of the sherds by broad and shallow incision on red slip although two sherds have been decorated by small and narrow incision, of which one is a lug. Geometric modelling and pelican-head zoomorphic modelling, occurs as well (table A3.15). One sherd from the 1999 collection has orange/beige slipped surfaces. Most of the bases are flat (table A3.16) and most of the griddles are straight or legged, but for both categories the shape of most of the fragments could not be identified (table A3.17).

The morphological description of the 1999 pottery collection has been based on the analysis of 187 rims larger than 5 cm. These demonstrate that the characteristic vessel shapes include jars, bowls and dishes with unrestricted simple contours (78.6%); (table A3.18). Dominant rim shapes are rounded (71.1%) and inward thickened (16.6%); (table A3.19). Most wall thicknesses are between 6-8 mm (34.2%), 9-11 mm (49.7%) and 12-16 mm (12.9%) and orifice diameters range mainly between 11-20 cm (18.2%), 21-30 cm (28.9%), 31-40 cm (13.4%), while 30.4% remains unidentified (tables A3.20-A3.21). Surface colours are predominantly reddish brown (33.7%), red (17.6%), dark gray-black (11.8%) and 10.7% could not be identified (table A3.22). Firing techniques include incomplete or relatively

	Number	Number %
Complete reduction	6	9.0
Incomplete oxidation or reduction	3	4.6
Incomplete or relatively good oxidation	57	86.4
Total	66	100.0

Table A3.11. Number and percentages of sherds within firing colour categories from the 1985 À l'Escalier collection.

	Number	Number %
Scratched	2	3.0
Smoothed	4	6.1
Lightly burnished	28	42.4
Highly burnished	21	31.8
Polished	4	6.1
Unidentified	7	10.6
Total	66	100.0

Table A3.12. Number and percentages of sherds within exterior surface finishing categories from the 1985 À l'Escalier collection.

	Number	Number %	Weight	Weight %
Rim	440	14.8	15,477	20.1
Body	2172	72.9	41,956	54.4
Base	151	5.1	7802	10.1
Griddle	197	6.6	8952	11.6
Appendage/other	18	0.6	2972	3.8
Total	2978	100.0	77,159	100.0

Table A3.13. Number, percentages and weight (g) of sherds from the 1999 À l'Escalier collection.

	Number	Number %
Lug	5	27.8
Pot-stand	3	16.7
Spindle whorls	3	16.7
Griddle leg	5	27.8
Unidentified appendage	2	11.0
Total	18	100.0

Table A3.14. Number and percentages of sherds within appendages/other categories from the 1999 À l'Escalier collection.

	Number	Number %
Incision	34	94.4
Modelling (geometric)	1	2.8
Modelled incised *appliqué* (zoomorphic)	1	2.8
Total	36	100.0

Table A3.15. Number and percentages of sherds with particular decoration modes in the 1999 À l'Escalier collection.

	Number	Number %
Flat	87	57.6
Convex	9	5.9
Concave	4	2.7
Pedestal/annular	5	3.3
Rounded	1	0.7
Unidentified	45	29.8
Total	151	100.0

Table A3.16. Number and percentages of sherds within base shape categories from the 1999 À l'Escalier collection.

	Number	Number %
Straight	21	10.7
Triangular	5	2.6
Overhanging	6	3.0
Rounded	3	1.5
Unthickened	4	2.0
Legged	30	15.2
Unidentified	128	65.0
Total	197	100.0

Table A3.17. Number and percentages of sherds within griddle shape categories from the 1999 À l'Escalier collection.

	Number	Number %
Jar with unrestricted simple contour	46	24.6
Bowl with unrestricted simple contour	65	34.7
Dish with unrestricted simple contour	36	19.3
Bowl with restricted simple contour	10	5.4
Bowl with unrestricted composite contour	6	3.2
Bowl with unrestricted inflected contour	11	5.9
Bowl with independent restricted inflected contour	1	0.5
Unidentified	12	6.4
Total	187	100.0

Table A3.18. Number and percentages of sherds within vessel shape categories from the 1999 À l'Escalier collection.

	Number	Number %
Rounded	133	71.1
Flattened	9	4.8
Inward thickened	31	16.6
Outward thickened	4	2.1
Unidentified	10	5.4
Total	187	100.0

Table A3.19. Number and percentages of sherds within rim shape categories from the 1999 À l'Escalier collection.

	Number	Number %
1-5 mm	6	3.2
6-8 mm	64	34.2
9-11 mm	93	49.7
12-16 mm	24	12.9
Total	187	100.0

Table A3.20. Number and percentages of sherds within wall thickness categories from the 1999 À l'Escalier collection.

	Number	Number %
1-10 cm	3	1.6
11-20 cm	34	18.2
21-30 cm	54	28.9
31-40 cm	25	13.4
41-50 cm	9	4.8
51-60 cm	5	2.7
Unidentified	57	30.4
Total	187	100.0

Table A3.21. Number and percentages of sherds within orifice diameter categories from the 1999 À l'Escalier collection.

	Number	Number %
Light gray	4	2.2
Gray	4	2.2
Pinkish gray	6	3.2
Dark gray-black	22	11.8
Brown-gray/gray-brown	1	0.5
Light brown-yellow	3	1.6
Light brown-gray	8	4.2
Dark brown/very dark brown	7	3.7
Reddish-gray/dark reddish-gray	16	8.6
Reddish brown	63	33.7
Red	33	17.6
Unidentified	20	10.7
Total	187	100.0

Table A3.22. Number and percentages of sherds within exterior surface colour categories from the 1999 À l'Escalier collection.

	Number	Number %
Complete reduction	25	13.4
Incomplete oxidation or reduction	22	11.8
Incomplete or relatively good oxidation	132	70.6
Unidentified	8	4.2
Total	187	100.0

Table A3.23. Number and percentages of sherds within firing colour categories from the 1999 À l'Escalier collection.

	Number	Number %
Crude	1	0.5
Scratched	1	0.5
Smoothed	5	2.8
Lightly burnished	21	11.2
Highly burnished	110	58.8
Polished	11	5.9
Unidentified	38	20.3
Total	187	100.0

Table A3.24. Number and percentages of sherds within exterior surface finishing categories from the 1999 À l'Escalier collection.

good oxidation (70.6%), complete reduction (13.4%), as well as incomplete oxidation or reduction (11.8%); (table A3.23). Surface finishing is predominantly characterised by burnishing (70.0%) and for 20.3% the surface finishing could not be identified (table A3.24). The ceramics found in level 4 of unit 2 are covered in particular by a heavy chalky layer.

The 1985 and 1999 pottery samples are quite comparable, although some differences occur as a result of typical biases related to surface collections. This is visible in the fact that the 1985 collection includes a higher percentage of rims and fragments belonging to the appendages/other category (although the types of appendages/other are quite similar) and decorated sherds. The percentages for slipped sherds are almost equal for the 1985 and 1999 collections. Decoration techniques are similar, although nubbins and finger indentation were only found in the 1985 sample. Percentages of flat bases are comparable for both collections, but in 1985 much more concave bases were collected while in 1999 a much larger percentage remains unidentified. Convex and rounded bases, although not very numerous, have been found in the 1999 sample. Percentages for unidentified griddles are comparably high for both collections. The 1985 collection has a slightly larger percentage of legged griddles. Overhanging, rounded and unthickened griddles were only found in the 1999 collection. Vessel shapes, rim shapes, wall thickness, orifice diameter, firing technique and surface finishing are quite comparable as well, although larger variations occur for the 1999 sample. The variety of surface colours, in particular, is much larger in the 1999 sample. Bowls with unrestricted inflected contours and bowls with independent restricted inflected contours, 1-5 mm wall thickness category, 1-10 cm and 50-60 cm orifice diameter categories, crude outer surfaces are absent from the 1985 sample. The latter, however, has slightly more scratched and smoothed outer surfaces.

3.1.3.2 Lithic artefacts

Bodu collected one possible polishing stone of unidentified layered fine-grained rock and one flake of an igneous rock pebble from the surface of the site in 1985.

Many more lithic artefacts were discovered in the 1999 test units (tables A3.25-A3.26). Most of them are igneous rock pieces. These include 62 pebbles (two flaked), 13 pebble fragments, one unidentified core-artefact fragment, 19 flakes (five from pebbles) and one pebble with an abraded side (passive grinding/abrading stone). They further consist of one pebble fragment with a slightly concave abraded face (passive grinding/abrading stone), five pebble fragments used as active abrading tools, one hammer-stone pebble and one hammer-stone pebble fragment with pits on one end, and one fragment, with an abraded face, which functioned either as a passive or an active grinding/abrading stone. A total of 52 unidentified and probably natural fragments has been collected as well but these are not considered artefacts. Flint flakes (six from Antigua, two from Long Island and one light-brown unidentified), one calcite crystal, one plutonic rock fragment with a flat abraded face (passive or active

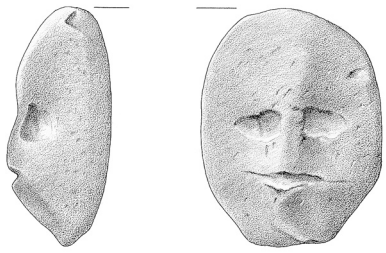


Fig. A3.5. Anthropomorphic head from À l'Escalier carved in beach-rock (unit 1, level 6, scale 1:3).

	Total
Igneous rock	105 86.8
Antigua flint (not Long Island)	4 3.3
Antigua flint (possibly Long Island)	2 1.7
Long Island flint	2 1.7
Unidentified flint	1 0.8
Calcite	1 0.8
Plutonic rock	1 0.8
St. Martin chert	1 0.8
Non-local white chert	1 0.8
Limestone	2 1.7
Beach-rock	1 0.8
Total	121 100.0

Table A3.25. Number and percentages of rock types found at À l'Escalier in 1999.

	Total
Pebble	60 49.6
Flaked pebble	2 1.7
Pebble fragment	14 11.5
Fragment of unidentified core artefact	2 1.7
Flake	29 23.9
Passive grinding-stone	2 1.7
Active abrading stone	6 4.9
Passive or active grinding/abrading stone	2 1.7
Hammer-stone	2 1.7
Adze	1 0.8
Carved anthropomorphic head	1 0.8
Total	121 100.0

Table A3.26. Number and percentages of lithic artefact types found at À l'Escalier in 1999.

grinding/abrading stone), one St. Martin chert adze fragment and one non-local white chert flake (possibly from Antigua) were found. Some limestone pieces were found, including one pebble fragment, one pebble with slight abrasion on one face (possible active grinding/abrading tool) and two natural fragments, together with two natural fragments of unidentified greenish rock with large minerals. The most beautiful lithic artefact is a 9 cm long anthropomorphic head (fig. A3.5) that has been carved out of beach-rock.

3.1.3.3 Shell artefacts

Ten shell artefacts were discovered in 1999 (table A3.27). Almost all the artefacts are of *Strombus gigas* and, despite their worked edges, many of them have indistinct functions. They include an axe preform, two possible *spatula* preforms (one broken), one possible *zemi* preform and two unidentified artefacts. In addition, two small polished discs (one possible earplug), an *Isognomon alatus* or *Pteria colymbus* inlay with an irregular perforation and one broken *Chama* sp. artefact with a perforation, possibly a bead, were found (fig. A3.6).

3.1.3.4 Coral artefacts

Many coral artefacts were collected in 1999 (table A3.28). These include 127 lightly or heavily used *Acropora cervicornis* rasp fragments, except for seven with a ground tip and two without use wear, and 45 heavily used *Acropora palmata* active or passive grinding tool fragments, except for one without use wear. One grinding tool fragment and six unidentified objects with worked edges from an unidentified coral species were found as well.

3.1.3.5 Shellfish remains

The main shellfish remains consisted of *Cittarium pica, Strombus gigas* and *Nerita* sp. (table A3.29). Other shell species represented in low numbers and weights at the site included *Acanthopleura granulata, Acmaea leucopleura*, *Ampulladoria* sp., *Arca zebra*, *Astraea* sp., *Bulimulus guadalupensis*, *Cerithium litteratum*, *Chama sarda*, *Charonia variegata*, *Chiton tuberculatus*, *Codakia orbicularis*, *Columbella mercatoria, Conus* sp., *Cymatium femorale*, *Cypraea* sp., *Fissurella nodosa*, *Hipponix antiquatus*, *Lima scabra, Linga pensylvanica*, *Lucina* sp., *Murex* sp., *Nodilittorina tuberculata*, *Pisiano pusio*, *Polia aritula*, *Polinices lacteus*, *Purpura patula*, *Tectarius muricatus*, *Tellina* sp., *Thais* sp., *Tonna maculosa*, and *Turbo* sp.[1]

Fig. A3.6. Two polished discs, an *Isognomon alatus* or *Pteria colymbus* inlay (c. 3 cm long) and a broken *Chama* sp. bead from À l'Escalier.

	Axe preform	Possible *spatula* preform	Possible bead	Inlay	Disc	Possible *zemi* preform	Unident.	Total
Strombus gigas	1 10.0	2 20.0			2 20.0	1 10.0	2 20.0	8 80.0
Isognomon alatus/ Pteria colymbus				1 10.0				1 10.0
Chama sp.			1 10.0					1 10.0
Total	1 10.0	2 20.0	1 10.0	1 10.0	2 20.0	1 10.0	2 20.0	10 100.0

Table A3.27. Number and percentages of shell species and artefact types from the 1999 À l'Escalier collection.

	Rasp fragment	Grinding tool fragment	Unidentified	Total
Acropora cervicornis	127			127
	70.9			70.9
Acropora palmata		45		45
		25.1		25.1
Unidentified		1	6	7
		0.6	3.4	4.0
Total	127	46	6	179
	70.9	25.7	3.4	100.0

Table A3.28. Number and percentages of coral species and artefact types from the 1999 À l'Escalier collection.

	MNI count	MNI weight	Fragment weight	Total weight
Strombus gigas	275	57,494	13,265	70,759
	8.6	31.0	19.1	27.8
Cittarium pica	2129	122,603	53,760	176,363
	66.9	66.2	77.5	69.3
Nerita sp.	286	254	14	268
	9.0	0.1	< 0.1	0.1
Other	489	4840	2231	7096
	15.4	2.6	3.2	2.8
Unidentified	4	7	67	74
	0.1	< 0.1	0.1	< 0.1
Total	3183	185,198	69,337	254,560
	100.0	100.0	100.0	100.0

Table A3.29. MNI counts, MNI weights (g), fragment weight (g), total weight (g) and percentages of the main shell species from the 1999 À l'Escalier collection.

3.1.3.6 Animal remains

The faunal material studied from À l'Escalier is from a 2/5 inch sample (total MNI 220, total weight 1763 g) and a 1 mm sample (total MNI 127, total weight 384 g). MNI counts (excluding the intrusive species) of the 2/5 inch samples of the À l'Escalier (97110-001) site indicate that the sample consists of fish (50.8%), crab (40%), mammal (2.7%), reptile (2.3%), bird (1.8%) and sea urchin (1%). Most of the faunal remains represent terrestrial species (38.6%), including agouti, unidentified bird, iguana, land hermit crab, great land crab, black land crab and land crab. However, this high percentage is mainly derived from the high contribution of land hermit crab, of which it remains disputed whether it served dietary purposes. Without land hermit crab included the terrestrial component makes up 17.2% of the sample. Reef herbivores/omnivores (30.4%), including parrotfish, surgeonfish and triggerfish, are also important in the diet. Reef carnivores (16.2%), include shark, blackbar soldierfish, squirrelfish, grouper, big eye, jack, snapper, grunt and wrasse, and inshore species (11.1%) include sea turtle, needlefish, porgy, boxfish, porcupinefish, red rock urchin, common spider crab and coral crab. Very few remains are from offshore-pelagic species (0.5%), in this case barracuda. Unknown habitats (1.8%) are represented by unidentified fish and unidentified crab species (Nokkert in appendix 5).

MNI counts of the 1 mm samples from the À l'Escalier site suggest that the sample consists of fish (54.5%), crab (33.9%), sea urchin (3.9%), mammal (3.2%), reptile (2.4%) and bird (1.6%). Many faunal remains are

of terrestrial species (38.8%), including rice rat, agouti, unidentified bird, iguana, unidentified reptile, land hermit crab, great land crab, land crab and unidentified crab. Without including land hermit crab the terrestrial component makes up 24.6% of the sample. Reef herbivores/omnivores (22.8%) include parrotfish, surgeonfish and triggerfish. Reef carnivores (17.4%) include shark, squirrelfish, grouper, big eye, jack, snapper, grunt, Spanish hogfish and wrasse. Inshore species (17.4%) include sea turtle, herring, needlefish, porgy, goatfish, boxfish, red rock urchin, common spider crab and coral crab. Of the offshore-pelagic habitat species (1.6%) barracuda has been identified. Unknown habitat (1.6%) are represented by unidentified fish (Nokkert in appendix 5).

Comparison between the samples demonstrates that the samples produce a rather uniform image. Terrestrial species represent the same percentages (although when excluding land hermit crab from the sample, the 2/5 inch sample has a smaller terrestrial component), and the same species. The 1 mm sample has rice rat remains (1.6% of the total MNI in this sample) that are absent from the 2/5 inch sample. Reef herbivores/omnivores contribution is slightly smaller in the 1 mm sample but represents the same species. Reef carnivores are rather similar in both samples. The 1 mm sample has a slightly larger contribution by inshore and offshore-pelagic species, although the species represented are similar. Classes represented are rather similar as well, although sea urchin makes up a larger component in the 1 mm sample than it did in the 2/5 inch sample.

3.1.3.7 Human skeletal material

One small heavily weathered human skull fragment was excavated, which may be the result of displacement and redeposition of an eroded burial (Nokkert personal communication 2001).

3.1.4 Chronological assignment

Three unmodified *Cittarium pica* shell samples were obtained from the 1999 test units, from levels 5 (40-50 cm below the surface), 6 (50-60 cm below the surface) and 7 + 8 (60-80 cm below the surface) in test unit 2. They were sent to the Laboratory for Isotopic Research in Groningen (The Netherlands). The BP dates have been calibrated using CALIB 4.2 by M. Stuiver, P.J. Reimer and R. Reimer using the calibration curve for marine shell.[2] Calibrated radiocarbon dates with a 68.3% confidence level suggest that the site was at least occupied between cal. AD 1188-1243, between cal. AD 1091-1166, and between cal. AD 1049-1112 and at a 95.4% confidence level calibrated dates range between cal. AD 1165-1271, cal. AD 1062-1195 and cal. AD 1036-1155 (table A3.30).

On the basis of the pottery, site occupation was estimated around AD 1000. The pottery, which is cruder than the Anse à la Gourde ceramics or those from Anse Petite Rivière, is Late Ceramic A (Early Suazan Troumassoid style). It possibly reflects a local development.[3] Influences from both the southern as well as the northern islands are represented in the ceramic sample. Southern, *i.e.* Suazan Troumassoid style influences are visible on the griddles, of which a few are legged, while the inward thickened rims demonstrate Mamoran Troumassoid style influences known from the northern Lesser Antilles. No rim modifications have been found and incisions are not extraordinarily broad.

3.2 ANSE DES GALETS (97110-002; SC11)

3.2.1 Site location and preservation

The Anse des Galets site (x: 703,900; y: 1803,400) was documented and surveyed by Pierre Bodu (1985[c]) using information of the La Désirade gendarmes and the site was restudied in 1999. It is situated at the edge of the ravine south of Pointe Frégule (fig. 5.2). Site dimensions are 200 m from east to west and 50-75 m from north to south. The archaeological material on the surface consists of a modest and even distribution of heavily fragmented ceramics and

Sample ID	Provenance (unit, level)	Material	BP date	Cal. AD 2σ (95.4%)	Cal. AD 1σ (68.3%)
GrN-26814	Unit 2, level 5	*Cittarium pica*	1205 ± 25	1165-1271	1188-1243
GrN-26815	Unit 2, level 6	*Cittarium pica*	1275 ± 25	1062-1195	1091-1166
GrN-26816	Unit 2, level 7+8	*Cittarium pica*	1315 ± 25	1036-1155	1049-1112

Table A3.30. À l'Escalier radiocarbon dates.

shell, including *Cittarium pica*, *Strombus gigas* and *Charonia variegata*. Some ceramic off-site material was found south of the site. Rather large trees, mainly *flamboyant* trees, with little undergrowth, cover 10-30 percent of the soil, which consists of loose, fine, well-drained loamy sand. Surface visibility is very good. The site, which is on a sloping terrain, owned by Mrs. Maston (Les Galets), near the coast, has been destroyed almost completely as a result of slope erosion and bulldozer-activities. The quantity and quality of surface material described by Bodu was not matched at all by the 1999 surface collections and the test unit demonstrated that most of the archaeological layer has actually disappeared.

3.2.2 Test units and stratigraphy

One 2 x 2 m unit was excavated in the central part of the site (fig. A3.7). It showed that the archaeological layer had almost completely disappeared and very small fragments without a clear context were found. The northwest corner of unit 1 was located at 703844.716; 1803652.929; 21.08 (Guadeloupe - Ste. Anne system) or 16°18′9.1321″; -61°5′46.0048″; -22.13 (WGS84).

3.2.3 Archaeological materials

The archaeological material described includes the 1985 and 1999 surface collections as well as material from the 1999 test unit.

3.2.3.1 Pottery

The 1985 and 1999 collections turned out to be quite comparable. Bodu collected 106 sherds in 1985, mostly body sherds (89.6%), weighing 1116 g (table A3.31). The collection contains hardly any diagnostic material at all. No fragments belonging to the appendages/other category were found. Eight sherds have red slipped surfaces (7.6%)

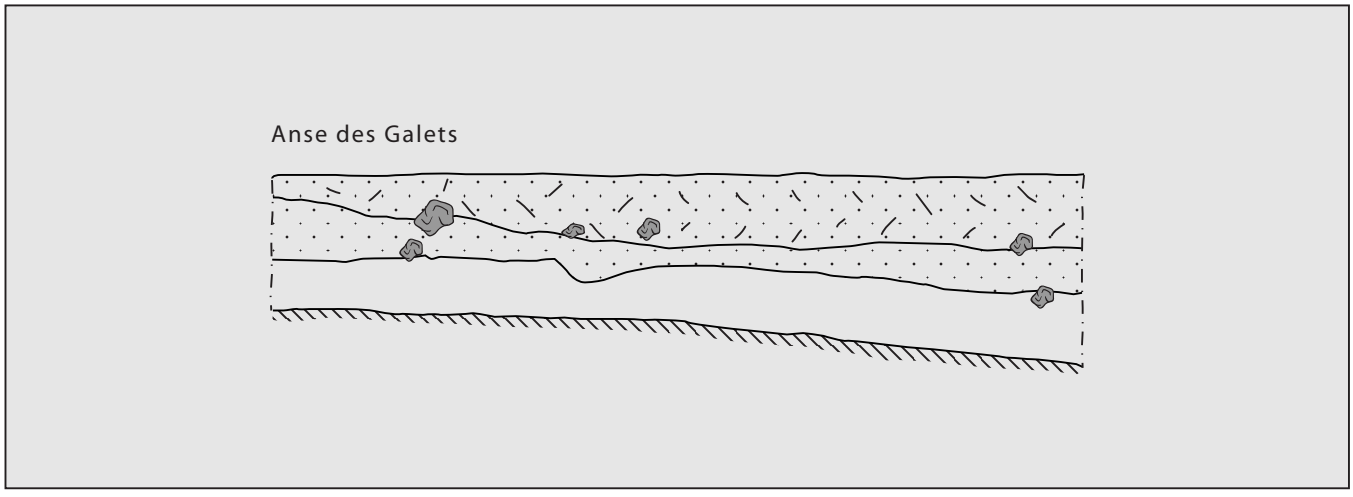


Fig. A3.7. Anse des Galets, unit 1 (2 x 2 m), north section.

and three sherds (2.8%) are decorated by incision. Griddle fragments are straight (33.3%) or unidentified (66.7%). As it had been decided to use rims larger than 5 cm for further investigation, and no such rims were found, no morphological and technological description could be provided.

In 1999, 19 heavily weathered sherds could be collected, mostly body sherds (84.2%), weighing 159 g (table A3.32). No fragments belonging to the appendages/other category were found. Six sherds have red slipped surfaces (31.6%) and one sherd (5.3%) was decorated by a narrow double incision on red slip. Griddles are straight and legged. As it had been decided to use rims larger than 5 cm for further investigation, and no such rims had been found, no morphological and technological description could be provided.

3.2.3.2 Lithic artefacts

Bodu collected 14 lithic artefacts from the surface of the site in 1985 (table A3.33). These include one local red chert shatter piece and one possible St. Martin chert fragment. Igneous rock artefacts consist of one pebble fragment used as a hammer-stone, two pebbles, six pebble fragments, one flaked pebble fragment, one flake and one unidentified fragment.

In 1999, one lithic artefact was collected. This is an edge-bit of a coarse igneous rock axe. Both sides show pecking traces and the pits on the broken face suggest that it has been re-used as a hammer-stone. A total of 217 local igneous rock pebbles was found as well, but these probably have a natural occurrence at the site, which is not called Anse des Galets for nothing!

3.2.3.3 Coral artefacts

One unidentified artefact of an unidentified coral species was found.

3.2.3.4 Shellfish remains

The main shellfish remains, collected in 1999, consisted of *Strombus gigas* and *Cittarium pica* (table A3.34). Other shell species represented in very low numbers and weights at the site included *Acanthopleura granulata*, *Astraea* sp., *Bulimulus guadalupensis*, *Diadora dysoni*, and *Nerita* sp.[4]

	Number	Number %	Weight	Weight %
Rim	8	7.6	98	8.8
Body	95	89.6	916	82.1
Base	0	0.0	0	0.0
Griddle	3	2.8	102	9.1
Appendage/other	0	0.0	0	0.0
Total	106	100.0	1116	100.0

Table A3.31. Number, percentages and weight (g) of sherds from the 1985 Anse des Galets collection.

	Number	Number %	Weight	Weight %
Rim	1	5.3	14	8.8
Body	16	84.2	90	56.6
Base	0	0.0	0	0.0
Griddle	2	10.5	55	34.6
Appendage/other	0	0.0	0	0.0
Total	19	100.0	159	100.0

Table A3.32. Number, percentages and weight (g) of sherds from the 1999 Anse des Galets collection.

3.2.3.5 Animal remains
The 2/5 inch sample (MNI 2, 3 g) of Anse des Galets consists of black land crab and other crab remains (Nokkert in appendix 5).

3.2.4 Chronological assignment
The site yielded Late Ceramic A pottery, dated around AD 1000-1200.

3.3 GROTTE DE GRANDE ANSE (97110-006; SC33)

3.3.1 Site location and preservation
Bodu surveyed the Grotte de Grande Anse site (x: 706,000; y: 1803,900) in 1984 on the basis of information provided by Jacques Zamia, and it was restudied in 1999. The site is located in the capital of La Désirade, in a very small cave, on the slope of a hill, with its entrance facing south (fig. 5.2). Bodu reported a 20 m^2 site area, but as construction works next to the site caused the collapsing of part of it, the dimensions of the cave were estimated at 1.5 m from north to south and 4 m from west to east during the 1999 survey. Although some ceramic fragments were found, the archaeological deposit appears to be very superficial and almost no off-site material was found. No surface collection was made in 1999. The soil in and just outside the cave consists of loose, coarse, moderately well-drained sand with stones. Vegetation surrounding the site includes cultivated plants, such as banana-trees. Groundcover percentage by vegetation and constructions outside the cave is high,

	Shatter piece	Hammer stone	Pebble	Pebble fragment	Flaked pebble fragment	Flake	Unidentified	Total
Local red chert	1 7.1							1 7.1
Local igneous rock		1 7.1	2 14.3	6 43.0	1 7.1	1 7.1	1 7.1	12 85.8
St. Martin chert							1 7.1	1 7.1
Total	1 7.1	1 7.1	2 14.3	6 43.0	1 7.1	1 7.1	2 14.3	14 100.0

Table A3.33. Number and percentages of rock types and lithic artefact types collected at the Anse des Galets surface in 1985.

	MNI count	MNI weight	Fragment weight	Total weight
Strombus gigas	0 0.0	0 0.0	62 11.8	62 5.4
Cittarium pica	11 12.1	564 89.7	410 77.9	974 84.3
Other	80 87.9	65 10.3	50 9.5	115 9.9
Unidentified	0 0.0	0 0.0	4 0.8	4 0.4
Total	91 100.0	629 100.0	526 100.0	1155 100.0

Table A3.34. MNI counts, MNI weights (g), fragment weight (g), total weight (g) and percentages of the main shell species from the 1999 Anse des Galets collection.

81-100 percent, and surface visibility is not very good. Bodu already reported the site, which has been in use as hen house for a long time, to be heavily disturbed. Nowadays, the site is almost completely destroyed as a result of the construction of a house and the road on top of the cave. Mrs. L. Nilor, owner of the site, lives there. No test units were excavated.

3.3.2 Archaeological materials

The material described was collected by Bodu in 1985. It includes some pottery and one lithic artefact, which is a fine-grained local volcanic rock pebble fragment with localised areas with pits on both faces. It may have been used as hammering or anvil stone. Merely 10 sherds were collected, weighing 190 g, including two rims smaller than 5 cm and eight body sherds. No fragments belonging to the appendages/other category were found. One sherd (0.1%) had a red slipped surface and no sherds were decorated. As it had been decided to use rims larger than 5 cm for further investigation, and no such rims were found, no morphological and technological description could be provided for the ceramics of this site.

3.3.3 Chronological assignment

The pottery found at the site is Late Ceramic A (unidentified style).

3.4 GROTTE LE BAIGNEUX (97110-007; SC34)

3.4.1 Site location and preservation

Although Bodu reported the Grotte le Baigneux site (x: 706,100; y: 1803,900) in 1984 on the basis of information received from the owner, Mr. M. Baigneux (Grande Anse), who found two volcanic stone axes (one of which is an eared axe) and one *Strombus gigas* axe, it was not surveyed prior to 1999. The site, which is a cave site, is situated on a steep slope running from the plateau to the southern coastal plain (fig. 5.2). Site dimensions are 6.5 m from south-west to north-east and 6 m from north-west to north-east. A very

	Pebble	Pebble fragment	Flaked piece	Hammer-stone	Grinding-stone	Core artefact	Total
Local igneous rock	1 14.3	2 28.5	1 14.3	1 14.3	1 14.3	1 14.3	7 100.0
Total	1 14.3	2 28.5	1 14.3	1 14.3	1 14.3	1 14.3	7 100.0

Table A3.35. Number and percentages of rock types and lithic artefact types collected at the Grotte le Baigneux surface in 1999.

	MNI count	MNI weight	Fragment weight	Total weight
Strombus gigas	1 25.0	60 49.2	0 0.0	60 49.2
Cittarium pica	1 25.0	36 29.5	0 0.0	36 29.5
Codakia orbicularis	1 25.0	12 9.8	0 0.0	12 9.8
Purpura patula	1 25.0	14 11.5	0 0.0	14 11.5
Total	4 100.0	122 100.0	0 0.0	122 100.0

Table A3.36. MNI counts, MNI weights (g), fragment weight (g), total weight (g) and percentages of all the shell species from the 1999 Grotte le Baigneux collection.

small amount of pre-Columbian archaeological material was found within the cave, consisting almost exclusively of some lithic and coral artefacts. Some fragments of *Cittarium pica* and *Strombus gigas* were observed as well. Almost no off-site material was found. Thorny brushwood with acacia covers 21-40 percent of the soil surrounding the site, which consists of coarse, moderately well drained sand with many stones. Surface visibility is good. No test units were excavated as the site, which is presently used for goat pasturing, is badly disturbed.

3.4.2 Archaeological materials

Although reported by Bodu, the axes collected by Mr. Baigneux were not available for study and they have not been included in this description. The material described consists of the 1999 surface collection.

3.4.2.1 Lithic artefacts

The lithic artefacts include seven igneous rock pieces (table A3.35). Inside the cave, two artefacts were collected. One is a pebble fragment with an area of localised pits that possibly functioned as hammer-stone. The other is a pebble fragment with one slightly abraded smooth face, which was possibly used as active or passive abrading/grinding-stone. Near the entrance of the cave, one pebble fragment with pits on one end, one incomplete possibly flaked piece, two pebbles without use wear and one unidentified fragment of a core-artefact were collected as well.

3.4.2.2 Coral artefacts

One heavily used *Acropora palmata* passive grinding tool fragment was collected in 1999.

3.4.2.3 Shellfish remains

The amount of shell collected in 1999 is very limited. It includes *Strombus gigas*, *Cittarium pica*, *Codakia orbicularis* and *Purpura patula* (table A3.36). All shell could be identified.

3.4.3 Chronological assignment

As no pottery was collected, no chronological assignment could be made for the site.

3.5 COCOYER (97110-008; SC15, SC15A, SC15B)

3.5.1 Site location and preservation

The Cocoyer site (x: 711,625; y: 1808,000) was reported and surveyed by Bodu in 1985 and restudied in 1999. It is situated very close to a steep slope at the north-eastern part of the central plateau of La Désirade (fig. 5.2). Site dimensions are 120 m from east to west and 100 m from north to south. High dense grass covers 61-80 percent of the soil, which consists of compact, fine, moderately well drained sandy clay. Surface visibility is very bad. The find distribution on the surface is rather patchy and consists of moderately fragmented ceramics and large amounts of *Cittarium pica* and *Strombus gigas*. A lot of griddle fragments were found in the eastern part of the site during a revisit of the site in July 2000. Approximately 20 m north of the Cocoyer site, another small concentration (SC15a) of archaeological material was discovered, consisting exclusively of heavily fragmented and heavily eroded pottery sherds and *Cittarium pica* fragments. It is situated strategically on a flat terrain right next to the edge of the north cliff. The dimensions of this concentration are 10 m from east to west and 10 m from north to south. The concentration appears to be disturbed as a result of erosion. Approximately 30 m south of the Cocoyer site, another patchy surface concentration consisting of sherds and fragments of *Cittarium pica* and *Charonia variegata* was discovered (SC15b). It is situated on a flat terrain near a strategic location and it measures 40 m east to west and 40 m north to south. This concentration is badly disturbed as a result of cultivation in the past. It is deemed that these concentrations are special activity areas that belong to the Cocoyer site. A very limited amount of ceramic off-site material was found north-east of the site. The site appears to have been partly destroyed as a result of erosion of the terrain, which is claimed by Mr. René Berchel (Baie Mahault), and of cultivation of parts of it. Bodu reported that the site was so heavily disturbed that excavations were not necessary. During the 1999 and 2000 campaigns, the site did not appear too seriously disturbed and more extensive excavation is recommended as a result of the interesting site location.

3.5.2 Test units and stratigraphy

One single 1 m^2 unit was excavated in a small concentration of surface material (fig. A3.8). However, it is possible that the location was not well chosen, as at this spot the archaeological layer appeared to have been almost completely eroded. The sub-surface situation may be better for other parts of the site. The northwest corner of unit 1 was located at 711647.491; 1807994.245; 172.88 (Guadeloupe - Ste. Anne system) or 16°20′27.9218″; -61°1′21.7936″; 129.09 (WGS84).

3.5.3 Archaeological materials

The material described includes the 1984, 1999 and 2000 surface collections as well as material from the 1999 test unit.

3.5.3.1 Pottery

The pottery sample consists of material collected by Bodu in 1984 and material collected in 1999 and 2000. The Bodu sample includes 142 heavily fragmented and weathered sherds, mostly body sherds (85.9%), weighing 1688 g (table A3.37). No fragments belonging to the appendage/other category, nor sherds with red slipped or decorated surfaces were found. Three unidentified base fragments were found, together with a rounded and unthickened griddle fragment.

The morphological description of the pottery collected by Bodu was based on the analysis of two rims larger than 5 cm. These belong to a jar and a bowl with unrestricted simple contours and both of the rims are rounded. Wall thicknesses range between 9-11 mm and one orifice diameter is between 11-20 cm while the other could not be identified. Both of the rims are reddish brown and the firing technique for both of them consists of incomplete or relatively good oxidation. One rim appears to have been irregularly fired. Surface finishing of both rims is unidentified.

The pottery collected in 1999 and 2000 includes 56 heavily weathered sherds, mostly from rims (41.1%) and body sherds (42.9%), weighing 652 g (table A3.38). One fragment (1.7%), a griddle leg, belonging to the appendages/other category was found. A total of 11 sherds has red slipped surfaces (19.6%) and three sherds (5.4%) are decorated by incision and punctation (table A3.39). Griddle rims are triangular (25%), legged (50%) or unidentified (25%).

The morphological description of the pottery collected in 1999 and 2000 was also based on the analysis of just two rims larger than 5 cm. These are both from bowls with unrestricted simple contours. Rim shapes are rounded and inward thickened. Wall thicknesses range between 6-8 mm and one orifice diameter is between 11-20 cm and one is unidentified. Surface colours are dark brown/very dark brown, incomplete or relatively good oxidation is the firing technique and surface finishing is unidentified.

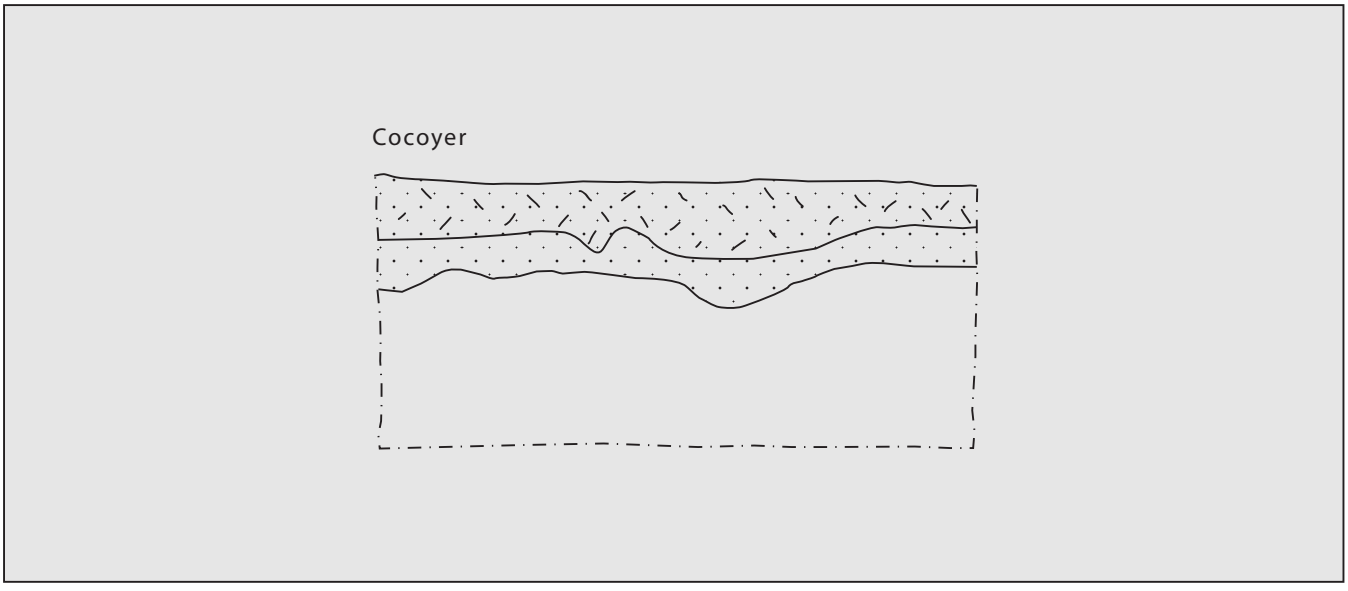


Fig. A3.8. Cocoyer, unit 1 (1 m^2), west section.

The 1984 and 1999-2000 collections are rather similar, although the first is larger and contains fewer rims and fewer griddle fragments (and different griddle rim shapes) but more base fragments. Remarkably, red slipped or decorated surfaces were not found, although these do occur in the 1999/2000 sample. Rims larger than 5 cm from both collections are very similar, although the 1984 rims are thinner and the surface colours are different.

3.5.3.2 Lithic artefacts

Five local volcanic rock artefacts were collected during the 1999 and 2000 surveys. These include two rock pebble hammer-stone fragments with possible traces of hammering activities, two pebble fragments, possibly used as passive abrading/grinding-stones (*metates*) and one flake core.

3.5.3.3 Shell artefacts

One nicely finished *Strombus gigas* axe fragment was collected in 2000.

3.5.4 Chronological assignment

The site yielded Late Ceramic A pottery, dated around AD 1000-1200.

	Number	Number %	Weight	Weight %
Rim	15	10.6	184	10.9
Body	122	85.9	1340	79.4
Base	3	2.1	118	7.0
Griddle	2	1.4	46	2.7
Appendage/other	0	0.0	0	0.0
Total	142	100.0	1688	100.0

Table A3.37. Number, percentages and weight (g) of sherds from the 1984 Cocoyer collection.

	Number	Number %	Weight	Weight %
Rim	23	41.1	174	26.7
Body	24	42.9	164	25.2
Base	0	0.0	0	0.0
Griddle	8	14.3	260	39.9
Appendage/other	1	1.7	54	8.2
Total	56	100.0	652	100.0

Table A3.38. Number, percentages and weight (g) of sherds collected at Cocoyer in 1999 and 2000.

	Number	Number %
Incision	2	66.7
Punctation	1	33.3
Total	3	100.0

Table A3.39. Number and percentages of sherds with particular decoration modes collected at Cocoyer in 1999 and 2000.

3.6 LES SABLES (97110-010; SC24)

3.6.1 Site location and preservation

The Les Sables site (x: 705,350; y: 1803,550) was discovered and excavated by Bodu in 1984 and restudied in 1999. The site is situated somewhat inland behind the Les Sables beach (fig. 5.2). Although Bodu estimated the site surface at 350 m^2 in 1984, site dimensions were estimated at 150 m from north to south and 150 m from west to east in 1999. The site terrain has several owners, among whom Mr. Jacques Loquet and the owner of the *Chez Addy* shop at Les Sables. Houses, cultivated plants, coastal grassland and a coastal strip of sea grape cover 41-60 percent of the soil, which consists of loose, medium structured, moderately well drained sand. Surface visibility is very good, particularly in the garden plots. The surface concentration consists of an even distribution of moderately fragmented ceramics and shell, such as *Cittarium pica*, *Strombus gigas*, *Codakia orbicularis*, *Chiton* sp. and *Nerita* sp. Shell artefacts occur in surface collections of local inhabitants. These include several *Strombus gigas* axes and adzes and some large shell beads were found as well. These finds have not been included in the present site description. No concentrations could be identified in the surface distribution. However, the south part of the site appears to have the densest concentration of material, while towards the north of the site, the material becomes less abundant. A lot of ceramic and shell off-site material was found. Most of it is in the area between the Aéroport site (97110-033) and the Les Sables site and north-west of the site in particular. Parts of the site have been seriously destroyed by coastal erosion in the southern part of the site and by the construction of houses and of the *Route Départementale* in the northern part. Cultivation of garden plots and collection of artefacts from the surface further endangers the preservation of the site.

3.6.2 Test units and stratigraphy

Bodu excavated one 4 m^2 unit (A1) and two 1 m^2 units (A2 and A3). Unit A2 contained a hearth feature, with charcoal, and burned *Cittarium pica* and other faunal remains, crab in particular.

Unit A1 (After Bodu 1985[b]):

0 to 20 cm: Loose, grayish brown sand, which had probably been perturbed by crab activity and cultivation. This layer contained abundant archaeological material, including pottery and lithic artefacts.

20 cm to 40 cm: More compact grayish brown sand, containing more and larger sherds, lithic artefacts and faunal remains.

40 cm to 50 cm: Lower part of the more compact grayish brown sandy layer, containing less pottery.

50 cm to 60 cm: Lowest part of the more compact grayish brown sandy layer, without archaeological material.

>60 cm depth: Sterile beach sand, without archaeological material. Bedrock was not reached.

3.6.3 Archaeological materials

The material described here includes material collected in 1985. The lithic artefacts include two pieces that were collected during the 1999 survey.

3.6.3.1 Pottery

A total of 2292 sherds was collected, mostly body sherds (69.9%), weighing 48376 g (table A3.40). The appendages/other category represents 5.8% of the sample. This includes a lot of handles, lugs and unidentified appendages and some pot-stands, griddle legs, *adornos* (fig. A3.9), *appliqués* and spouts (table A3.41). A total of 473 sherds has slipped surfaces (20.6%), of which six are black, two are beige and all the other fragments are red slipped, and 160 sherds have decorated surfaces (7.0%). Most of the sherds are decorated by incision (68.8%), of which one is on a base fragment, but white-on-red and polychrome painting, zoned-incised crosshatching, geometric modelling, zoomorphic and anthropomorphic modelled incised *appliqués*, punctation and nubbins occur as well (fig. A3.10). One polychrome sherd has also been decorated by incision. Polychrome painting is characterised by red with beige and white, white on gray, white on light grayish-brown, red and beige and red and orange painted surfaces. Several handles are decorated by geometric modelling (in some cases combined with lugs), modelled-incised-anthropomorphic decorations, nubbins and lugs (table A3.42). Four fragments of boat-shaped vessels were found (0.2%). Most of the bases are flat or concave and convex, pedestal/annular and unidentified bases occur as well (table A3.43). Most of the griddles remain unidentified, but straight, unthickened, overhanging, rounded and triangular griddle rims were found as well (table A3.44).

The morphological description of the pottery has been based on the analysis of 172 rims larger than 5 cm. These demonstrate that the characteristic vessel shapes include jars, bowls and dishes with unrestricted simple contours (67.5%) and bowls with restricted simple contours (10.5%), while 7.6% could not be identified (table A3.45; fig. A3.11). Dominant rim shapes are rounded (34.9%), outward thickened (33.7%), and flanged (14.5%); (table A3.46). Wall thicknesses range between 6-8 mm (47.7%) and 9-11 mm (40.7%), although some very thin (1-5 mm) and thick (12-15 mm) pottery occurs as well (table A3.47).

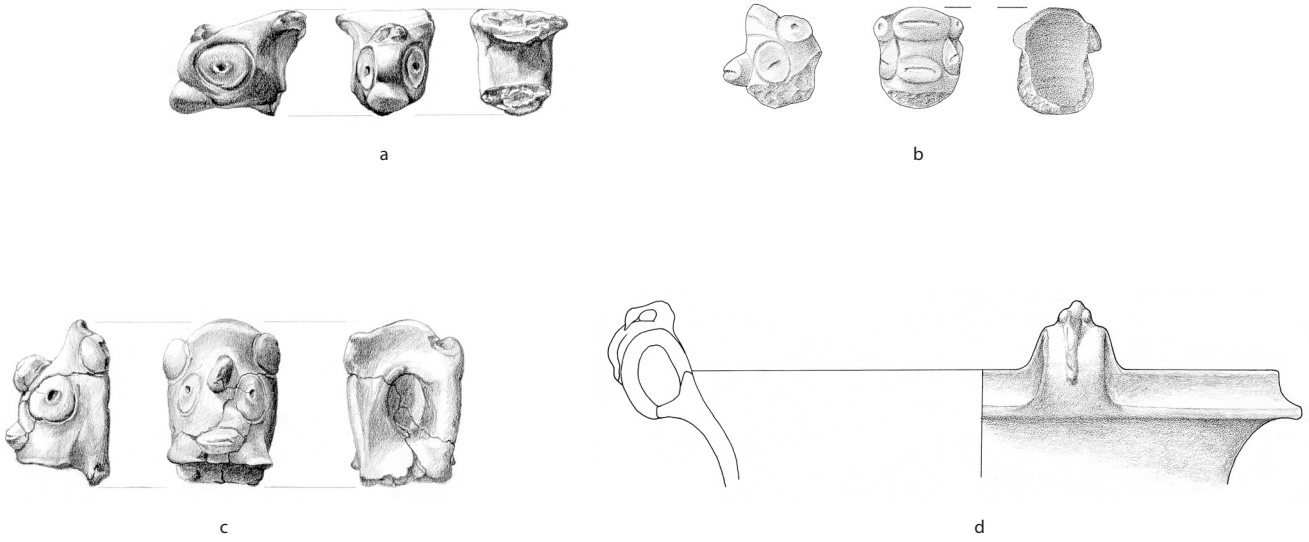


Fig. A3.9. Zoomorphic *adornos* from Les Sables, scale 1:3 (a-c: surface; d: unit A1, 20-40 cm).

	Number	Number %	Weight	Weight %
Rim	385	16.8	10,169	21.0
Body	1602	69.9	26,247	54.3
Base	68	3.0	2377	4.9
Griddle	104	4.5	4807	9.9
Appendage/other	133	5.8	4776	9.9
Total	2292	100.0	48,376	100.0

Table A3.40. Number, percentages and weight (g) of sherds from the 1985 Les Sables collection.

	Number	Number %
Handle	56	42.1
Lug	26	19.5
Pot-stand	3	2.3
Griddle leg	6	4.5
Adorno	6	4.5
Appliqué	1	0.8
Spout	2	1.5
Unidentified appendage	33	24.8
Total	133	100.0

Table A3.41. Number and percentages of sherds within appendages/other categories from the 1985 Les Sables collection.

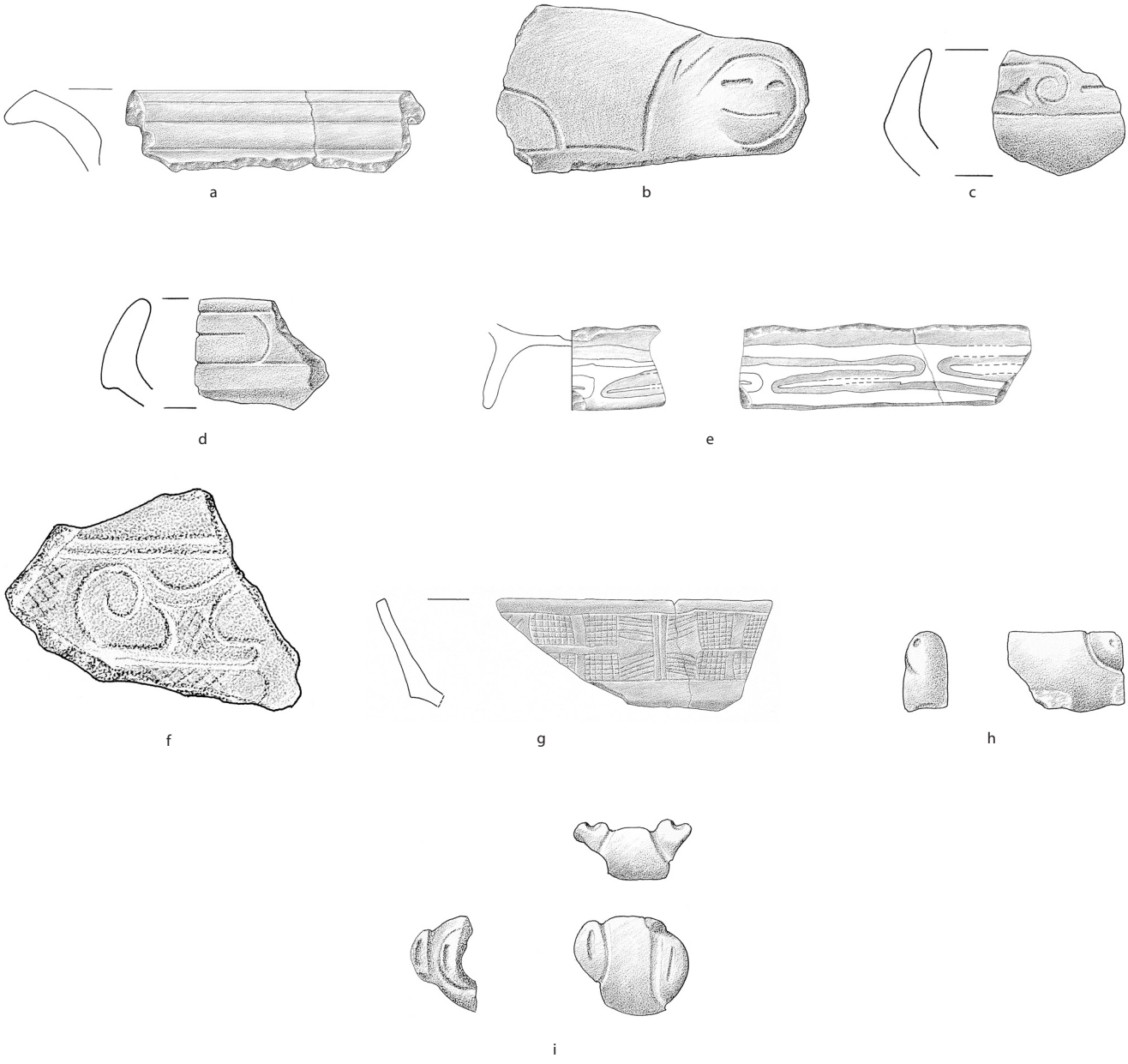


Fig. A3.10. Ceramics from Les Sables decorated by incision (a: surface, scale 1:3; b: unit A3, 0-20 cm, scale 1:2; c-d: surface, scale 1:2), red on white painting (e: unit A1, 20-40, scale 1:4), zoned-incised-crosshatching (f: surface, scale 1:1; g: unit A1, level 20-40, scale 1:3) and by nubbins (h: unit A1, 20-40 cm, scale 1:2; i: surface, scale 1:2).

	Number	Number %
White-on-red painting	9	5.6
Polychrome painting	15	9.4
Zoned-incised crosshatching	4	2.5
Incision	110	68.8
Modelling (geometric)	5	3.1
Modelled incised *appliqué* (zoomorphic)	5	3.1
Modelled incised *appliqué* (anthropomorphic)	4	2.5
Punctation	1	0.6
Nubbins	7	4.4
Total	160	100.0

Table A3.42. Number and percentages of sherds with particular decoration modes from the 1985 Les Sables collection.

	Number	Number %
Flat	34	50.0
Convex	1	1.5
Concave	19	27.9
Pedestal/annular	6	8.8
Unidentified	8	11.8
Total	68	100.0

Table A3.43. Number and percentages of sherds within base shape categories from the 1985 Les Sables collection.

	Number	Number %
Straight	16	15.4
Triangular	2	1.9
Overhanging	6	5.8
Rounded	4	3.8
Unthickened	8	7.7
Unidentified	68	65.4
Total	104	100.0

Table A3.44. Number and percentages of sherds within griddle shape categories from the 1985 Les Sables collection.

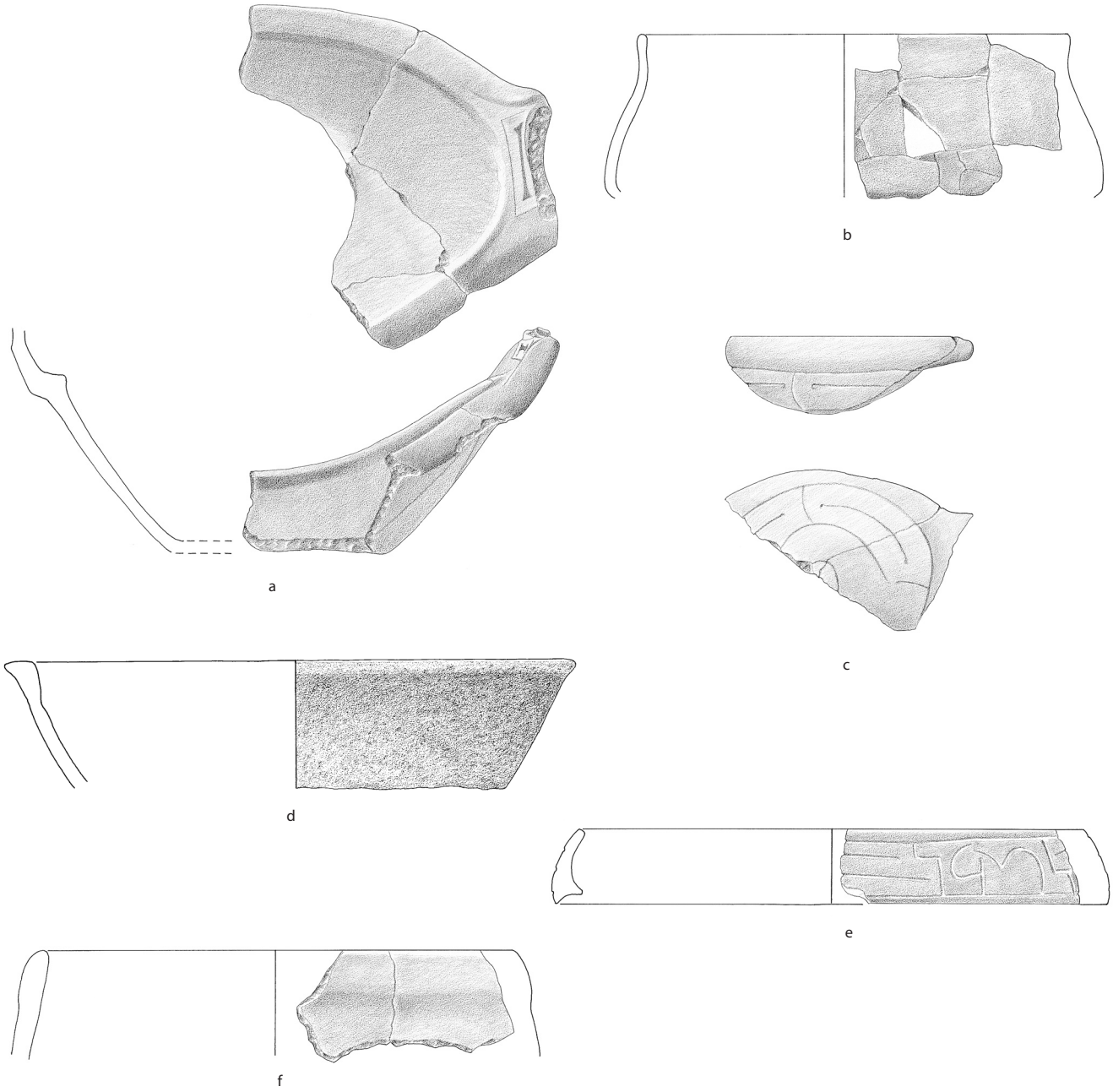


Fig. A3.11. Les Sables vessel shapes, scale 1:3 (a-d: unit A1, 20-40 cm; e: unit A1, 0-20 cm; f: surface).

	Number	Number %
Jar with unrestricted simple contour	39	22.7
Bowl with unrestricted simple contour	45	26.2
Dish with unrestricted simple contour	32	18.6
Bowl with restricted simple contour	18	10.5
Bowl with unrestricted composite contour	5	2.9
Jar with restricted composite contour	3	1.7
Bowl with unrestricted inflected contour	4	2.3
Jar with independent restricted inflected contour	7	4.1
Bowl with independent restricted inflected contour	3	1.7
Bowl with independent restricted complex contour	3	1.7
Unidentified	13	7.6
Total	172	100.0

Table A3.45. Number and percentages of sherds within vessel shape categories from the 1985 Les Sables collection.

	Number	Number %
Rounded	60	34.9
Flattened	6	3.5
Inward thickened	10	5.8
Outward thickened	58	33.7
Double thickened	7	4.1
Inwardly bevelled	1	0.6
Outwardly bevelled	1	0.6
Flanged	25	14.5
Unidentified	4	2.3
Total	172	100.0

Table A3.46. Number and percentages of sherds within rim shape categories from the 1985 Les Sables collection.

	Number	Number %
1-5 mm	3	1.7
6-8 mm	82	47.7
9-11 mm	70	40.7
12-15 mm	17	9.9
Total	172	100.0

Table A3.47. Number and percentages of sherds within wall thickness categories from the 1985 Les Sables collection.

	Number	Number %
1-10 cm	3	1.7
11-20 cm	29	16.9
21-30 cm	52	30.2
31-40 cm	23	13.4
41-50 cm	11	6.4
51-60 cm	3	1.7
Unidentified	51	29.7
Total	172	100.0

Table A3.48. Number and percentages of sherds within orifice diameter categories from the 1985 Les Sables collection.

	Number	Number %
Gray	1	0.6
Dark gray-black	5	2.9
Dark grayish-brown	1	0.6
Light brown-yellow	5	2.9
Light brown/brown	1	0.6
Dark brown/very dark brown	19	11.0
Reddish-gray/dark reddish-gray	6	3.5
Reddish brown	74	43.0
Red	50	29.1
Unidentified	10	5.8
Total	172	100.0

Table A3.49. Number and percentages of sherds within exterior surface colour categories from the 1985 Les Sables collection.

	Number	Number %
Complete reduction	10	5.8
Incomplete oxidation or reduction	19	11.0
Incomplete oxidation	2	1.2
Complete oxidation	10	5.8
Incomplete or relatively good oxidation	129	75.0
Unidentified	2	1.2
Total	172	100.0

Table A3.50. Number and percentages of sherds within firing colour categories from the 1985 Les Sables collection.

	Number	Number %
Smoothed	5	2.9
Lightly burnished	20	11.6
Highly burnished	67	39.0
Polished	43	25.0
Unidentified	37	21.5
Total	172	100.0

Table A3.51. Number and percentages of sherds within exterior surface finishing categories from the 1985 Les Sables collection.

A large range of orifice diameters has been identified. Most of them are between 21-30 cm (30.2%), 11-20 cm (16.9%) and 31-40 cm (13.4%); (table A3.48). Small and very large vessels occur in minor percentages, and a great part of the sample (29.7%) could not be identified. Surface colours are predominantly reddish brown (43.0%), red (29.1%) and dark brown/very dark brown (11.0%); (table A3.49). Firing techniques include mainly incomplete or relatively good oxidation (75.0%), of which one rim was irregularly fired, and incomplete oxidation or reduction (11.0%); (table A3.50). Surface finishing is predominantly characterised by burnishing (50.6%) and polishing (25.0%) and 21.5% could not be identified (table A3.51).

3.6.3.2 Lithic artefacts

Bodu collected several local igneous rock artefacts from the surface of the Les Sables site in 1985 (tables A3.52-A3.53). These consist of one round pitted hammer-stone with use-wear all over, showing negatives and which may have been used as a core as well and one fragment of a passive grinding/abrading stone, with one very concave face. A pebble and a fragment with one face with traces of abrasion, which may have been used as an active or a passive grinding/abrading stone, and one possible upper part of an axe were found as well. Both sides show traces of non-pronounced pitting and both faces are relatively smooth and appear to be slightly polished. Bodu also collected one Long Island flint flake, one patinated Long Island flint blade fragment with use retouch on one edge. The latter is probably a pre-ceramic artefact that has been re-used; it has one edge that is not patinated which probably resulted from use at the Les Sables site.

The 1985 test units yielded a lot of igneous rock artefacts, including pebbles or pebble fragments used as polishing stones (eight), active grinding/abrading stones (one), passive grinding/abrading stones (seven) and hammer-stones (three) and five pebble fragments without use-wear, five pebble flakes, four fragments and 25 pebbles. Flakes and shatter pieces are Long Island flint (three, one of which exhibits use retouch), possibly local dark green/dark gray bedded chert (one), red chert (one), slightly translucent Antigua chert (one), unidentified white flint/chert (one) and St. Martin chert (one pebble with negatives at both ends). The latter looks like an old axe fragment that has been re-used, possibly as a hammer-stone, as one of the ends looks blunt. One possible limestone fragment, with a clearly abraded face and which was probably used as a passive grinding/abrading stone, one unidentified pebble, with strange veins and inclusions, and two unidentified rock fragments, and one very small, possibly re-used, edge flake of fine-grained unidentified green-stone, were collected as well.

During the 1999 surface survey of the Les Sables site, one unidentified piece of local igneous rock without clear traces of use and one fragment of a local igneous rock active abrading stone were collected. The latter has been shaped into a flat rectangular piece, and both faces exhibit traces of use and shaping.

3.6.3.3 Animal remains

MNI counts show that, excluding the intrusive species, the Les Sables hand-collected sample (total MNI 32, total weight 583 g) includes crab (40.7%), fish (34.3%), reptiles (15.6%), mammal (3.1%) and bird (3.1%). The sample has a terrestrial component (46.9%) that consists of great land crab, land crab, unidentified mammal and unidentified bird remains. Several reef carnivores (18.7%) have been found, such as squirrelfish, grouper, jack and snapper, as well as inshore species (18.7%) including sea turtle and porcupinefish. Reef herbivores/omnivores (6.2%) are represented by parrotfish

	Total
Local igneous rock	63 80.7
Long Island flint	5 6.4
Possibly local dark green/gray bedded chert	1 1.3
Local red chert	1 1.3
Possible Antigua chert	1 1.3
Unidentified white flint/chert	1 1.3
St. Martin chert	1 1.3
Limestone	1 1.3
Unidentified	4 5.1
Total	78 100.0

Table A3.52. Number and percentages of rock types from the 1985 Les Sables collection.

	Total
Hammer-stone (or fragment)	5 6.4
Pebble	27 34.5
Pebble fragment	5 6.4
Possible upper part of axe	1 1.3
Flake	12 15.4
Blade	1 1.3
Polishing stone	8 10.3
Passive grinding-stone (or fragment)	10 12.8
Active grinding-stone	1 1.3
Shatter piece	2 2.6
Unidentified fragment	6 7.7
Total	78 100.0

Table A3.53. Number and percentages of lithic artefact types from the 1985 Les Sables collection.

and tuna/mackerel represents offshore-pelagic fish (6.3%). Great land crab remains represent the greatest part of the terrestrial remains and most of the inshore remains are turtle fragments. The large number of turtle fragments (almost half of the sample in weight) can be explained through collection biases resulting from the emphasis on larger fragments when hand-collecting (Nokkert in appendix 5).

3.6.4 Chronological assignment

The site yielded Early Ceramic B pottery. Although two sherds decorated with very fine Huecan-Saladoid style zoned-incised-crosshatching were found, the style of most of the pottery collected is modified Saladoid, which tentatively dates the site around AD 300-500. Even some later influences were found, for example in a pelican-head zoomorphic decoration.

3.7 MORNE DE BAIE MAHAULT (97110-011; SC32)

3.7.1 Site location and preservation

The Morne de Baie Mahault site (x: 712,900; y: 1806,700) was discovered and surveyed by Bodu in 1984 and restudied in 1999. It is situated on a small hill, near the small harbour of Baie Mahault, which provides an easy landing place for canoes. The road leading to the lighthouse borders the site in the north and the southern part of the site ends on a small rocky platform near the coast (fig. 5.2). Site dimensions are 125 m from east to west and 50 m from north to south. As the dispersed distribution, the limited number and the heavy fragmentation of the finds suggested that the site was rather shallow, no test units were excavated. Bodu found stone

artefacts atop of the hill and on the slight slopes that lead to the road in the north and to the sea in the south. In 1999, the surface distribution appeared to be patchy, including lithic artefacts such as pebbles, flakes, flake cores, hammer-stones and shatter pieces of local igneous rock, local chert and possible Long Island flint. Some weathered shell fragments, including *Cittarium pica* and *Strombus gigas*, and coral fragments were observed as well but they were not collected. The biggest part of the site is on a slightly sloping terrain (1-5%). Limited amounts of lithic off-site material have been found all over the southern coast, leading from the Morne Baie Mahault site (97110-011) towards the Pointe Doublé site (97110-014) at the easternmost part of the island. Coastal grassland covers 0-20 percent of the soil, which consists of loose, fine, well-drained clayey sand. Surface visibility is very good. The site appears to be slightly affected by erosion, as it is situated atop and on the sides of a small hill that is virtually unprotected by vegetation.

3.7.2 Archaeological materials

The material described consists of the 1984 and 1999 lithic artefact surface collections.

In 1985, 175 artefacts were found. These have been analysed by Bodu (1984) and include eight percussion instruments, 37 cores, 11 refuse fragments, 108 flakes, six tools and five other artefacts, such as non-worked pebbles (that do not naturally occur at the site), grinding-stones and an amethyst bead. Raw materials used include locally available volcanic rocks, radiolite being most commonly used, although an Antigua origin for one of the flakes is suggested. According to Bodu, the tools have been manufactured through very primitive direct hard percussion, in a non-organised production process. The quality of the raw material is not very good either. Very few of the artefacts show any evidence of retouch and production characteristics are comparable to the Pointe Doublé site, although the Morne de Baie Mahault site is slightly richer. Bodu suggests that the sites have been exploited to a similar degree.

The 1999 surface collection includes igneous rock pieces such as one flake, one pebble with pits at one end and the top of both sides and two hammer-stone pebbles with pits on the sides, of which one has a scar from flake removal (table A3.54). One flake and three shatter pieces of dark gray/black chert of a probable local origin were collected. This chert has not been identified at other sites on Guadeloupe, although it does occur frequently on La Désirade sites. Red chert fragments, including five flakes, one shatter piece and one flake core, and one possible Long Island flint flake used as a core were found as well. It should be remarked that only one large igneous rock class has been identified, which includes a large variety of rock types. Finer analysis requires specialist thin section research. The variety that was found appears to correspond to igneous rock varieties that are naturally available on La Désirade.

3.7.3 Chronological assignment

The chronological assignment for the site is largely unidentified, as neither ceramics nor ^{14}C samples could be collected for analysis. Bodu suggested that the inhabitants of the Anse Petite Rivière site exploited Morne de Baie Mahault. It is safer to assume that the site has been exploited on a very small scale from time to time by people living at different sites on La Désirade, and maybe even on Guadeloupe, in pre-Columbian times. For the lithic exploitation sites in general,

	Pebble	Flake	Flake core	Hammer-stone	Shatter piece	Total
Local igneous rock	1 6.3	1 6.3		2 12.4		4 25.0
Possible Long Island flint		1 6.3				1 6.3
Local dark gray-black chert		1 6.3			3 18.7	4 25.0
Local red chert		5 31.1	1 6.3		1 6.3	7 43.7
Total	1 6.3	8 50.0	1 6.3	2 12.4	4 25.0	16 100.0

Table A3.54. Number and percentages of rock types and lithic artefact types collected at the Morne de Baie Mahault surface in 1999.

it can be remarked that no real blades have been found. This suggests that the sites are ceramic, as no pre-ceramic sites have been revealed with similar material. However, the possibility cannot be excluded that this exploitation started already in the pre-ceramic period. Pre-ceramic sites have not been discovered at all in the research area. In the archaeological Edgar Clerc Museum, however, this site is actually presented as a pre-ceramic site, on the basis of the lack of pottery on the surface.

3.8 MORNE CYBÈLE-1 (97110-012; SC16)

3.8.1 Site location and preservation

The Morne Cybèle-1 site (x: 710,500; y: 1806,100) is situated on a heavily eroded gently sloping terrain, west of an antenna installation on the southern border of the plateau (fig. 5.2). Local inhabitants already knew the site before it was surveyed and excavated by Bodu (1985[c]) and by Hofman and Hoogland (1994). The site has not been restudied in 1999, as very little of it has been preserved and sufficient reports exist. According to Bodu the site measured approximately 200-300 m^2; in 1999 site dimensions were estimated at 35 m east-west and 25 m north-south. Bodu reported that pre-Columbian material extended from the border of the plateau to 20 m inland. An important concentration of material was found in a 4 x 1 m cavity in the southern part of the site, situated 3 m from the border of the plateau. An area with cavities in the western part of the site yielded a lot of archaeological material as well. According to Bodu the distribution of archaeological material does not reflect actual activity areas or special places, but loss and erosion of artefacts instead, and therefore spatial analysis of the site was not possible. Today, archaeological material, which consists almost exclusively of very small pottery fragments, is found only in bedrock cavities. Ceramic off-site material has been found directly north-west of the site, in the area leading to the sandy road on the plateau. Hardly any vegetation at all covers the soil, which consists of loose dark brown sand. At the borders of the site is dense shrub present. Surface visibility is very good. Most of the Morne Cybèle-1 site appears to have been destroyed. This can be attributed to the construction of the antenna installation, which also resulted in the discovery of the site, and Bodu excavated most of what was left (Hofman and Hoogland 1994). The site, which was cultivated in the past, according to Bodu, is threatened nowadays by its shallowness, by erosion and by goat trampling. Local inhabitants have been making surface collections, and some of these have been donated to the archaeological Edgar Clerc Museum.

3.8.2 Test units and stratigraphy

Bodu excavated 18 4 x 4 m units in 1984 and 1985. Hofman and Hoogland (1994) excavated one 1 m^2 test unit and a 50 x 50 cm unit. The two latter units revealed one layer of loose dark brown (7.5YR;3/3 or 3/2) sand with a very small quantity of ceramics and shell. Bedrock was reached at 30 cm depth.

3.8.3 Archaeological materials

It is not clear to what extent the surface material was indicative for the sub-surface situation in 1984 and 1985. In 1994, however, the surface material suggested richer sub-surface deposits. The pottery collected at the surface and excavated in 1984, 1985 and 1994 was analysed by Hofman and Hoogland (1994). Lithic artefacts were collected and analysed by Bodu.

3.8.3.1 Pottery

A total of 2347 sherds of Morne Cybèle style ceramics, made of finely tempered clays, was found (24,000 g). Part of the sample is decorated (3.5%), mostly by modelling although punctation and incision occur as well. Several *adornos* were found, representing animals, humans and part of human bodies. Six clay discs were discovered, as were two fragments of spindle-whorls. A total of 62 base fragments was discovered as well as 32 griddle fragments (1.3%). Vessel shapes include simple bowls. Lip shapes are often rounded and several have been decorated. Wall thicknesses range between 4-12 mm, with an average of 6.7 mm and vessel diameters range between 6-42 cm, with an average of 23.7 cm. Surfaces are lightly or highly burnished and hardly ever polished (Hofman 1995).

3.8.3.2 Lithic artefacts

Bodu reported a very small number of lithic artefacts, including polishing stone fragments, pebbles and local radiolite and andesite flakes and cores, of which the raw materials can be found at the eastern part of the island.

3.8.3.3 Shell artefacts

Père Guilbert discovered a *Strombus gigas* 'mask' on the surface of the site. This object, which represents a flat human face with a decorated headband, has been stored in the permanent exhibit of the archaeological Edgar Clerc Museum. The mask has been referred to as Taíno style (e.g. Bodu 1985[a]); (see section 4.2.4 for comments). Although other shell masks have been found in the region, for example on the Anse du Coq site on Marie-Galante (Hoogland and Hofman 1999) on the Rendezvous Bay and Sandy Hill sites on Anguilla (Crock 2000; Crock and Petersen 1999), the decoration of the Morne Cybèle-1 mask is unique

(*cf*. section 5.5.1). The artefact has been drilled and it can be used as a large pendant.

3.8.3.4 Shellfish remains

The excavations of 1984, 1985 and 1994 yielded approximately 900 shells. These included more than 800 *Cittarium pica*, eight *Strombus gigas*, and 70 other species, including *Charonia variegata* and *Cypraea* sp. According to Bodu it is possible that as a result of the problematic access to the site, *Strombus gigas* was exploited near the coast and that the meat was transported to the site. *Cittarium pica*, however, was transported to the site.

3.8.4 Chronological assignment

The site was used during the Late Ceramic B. Calibrated radiocarbon dates, from a *Cittarium pica* sample, with a 95.4% confidence level suggest that the site was used around AD 1440-1480. The pottery has been referred to as Morne Cybèle style (Hofman 1995[a]).

3.9 MORNE CYBÈLE-2 (97110-012; SC17)

3.9.1 Site location and preservation

The Morne Cybèle-2 site (x: 710,500; y: 1806,100) is located to the east of and very close to the Morne Cybèle-1 site (fig. 5.2).[5] The site was discovered in 1983 by Bodu (1985[c]) who excavated it in 1984, followed by Hofman and Hoogland (1994). The site was not restudied in 1999, as very little of it has been preserved and sufficient reports exist. According to Bodu the site area measures approximately 150 m^2, but in 1999 site dimensions were estimated at approximately 20 m east-west and 20 m north-south. Most of the material was found in bedrock cavities. Ceramic off-site material has been found directly north-west of the site, in the area leading to the sandy road on the plateau. Shrub lightly covers the soil, which consists of loose dark brown sand. Surface visibility is good. Building activities and erosion seriously destroyed the site.

3.9.2 Test units and stratigraphy

Hofman and Hoogland (1994) excavated one 1 m^2 test unit and two 50 x 50 cm units. The units revealed one layer of loose dark brown (7.5YR; 3/2) sand. Bedrock is reached at depths ranging from 11 to 18 cm. The 1 m^2 unit yielded archaeological material including ceramics and shell in 10-20 cm deep natural bedrock depressions. The other units did not yield any archaeological material at all (Hofman and Hoogland 1994).

3.9.3 Archaeological materials

It is not clear to what extent the surface material was indicative for the sub-surface situation in 1984 and 1985. In 1994, however, the surface material appeared to be quite indicative for the sub-surface deposits. The material described includes the surface collection as well as material from the test units of the 1994 fieldwork and it consists of pottery and shellfish remains. A total of 43 Late Ceramic A (Suazan Troumassoid style) sherds was collected, amounting to 1190 g. No base fragments and no griddle fragments were collected. Decoration includes broad shallow incision. Simple vessel shapes and unmodified lip shapes are dominant in the sample. Diameters range between 20 and 42 cm and wall thicknesses range between 8 and 14 mm. Surfaces are poorly finished and some are scratched (Hofman and Hoogland 1994). Bodu found 300 g of shell, and 2180 g of shells were collected in 1994. These include *Cittarium pica*, *Purpura patula, Chiton* sp. and *Nerita* sp. Bodu found one stone bead as well.

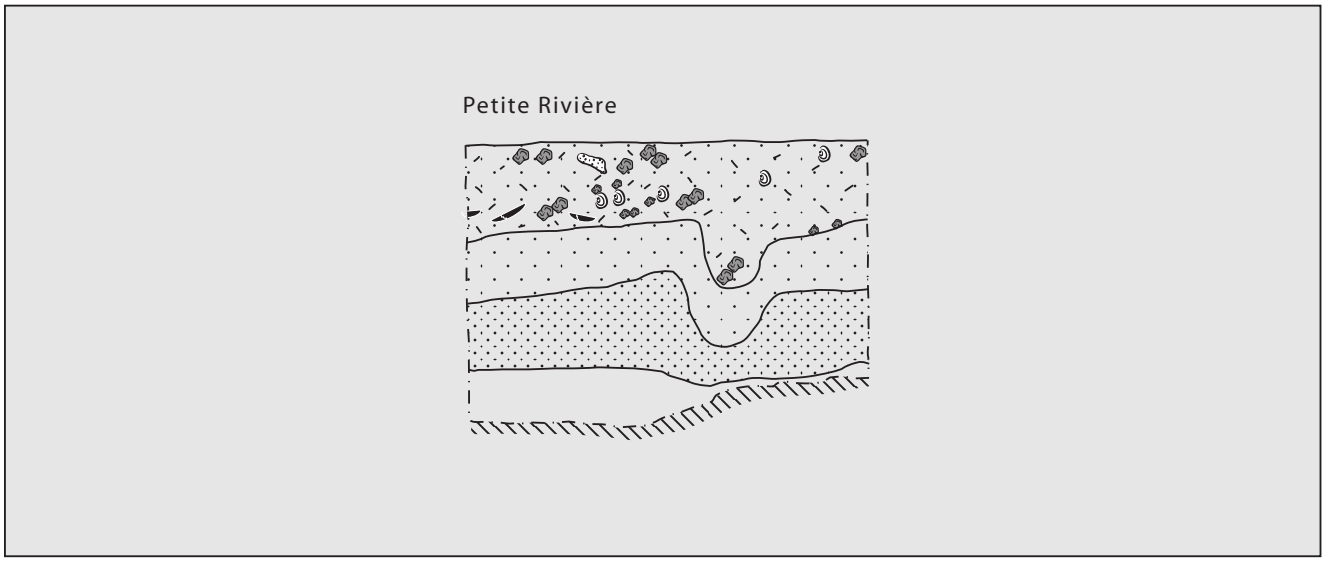
3.9.4 Chronological assignment

The pottery collected at the site is Late Ceramic A and it was labelled Suazan Troumassoid style. A *Cittarium pica* sample from unit 3 (GrN-20876) yielded a date of cal. AD 1230-1326 (Hofman and Hoogland 1994).

3.10 ANSE PETITE RIVIÈRE (97110-013; SC25)

3.10.1 Site location and preservation

The Anse Petite Rivière site (x: 711,800; y: 1806,500) is situated on the southern coastal plain near the Petite Rivière bay in Baie Mahault (fig. 5.2). It was discovered by Barbotin and Clerc in 1950, visited by Petitjean-Roget (1983) and excavated by Bodu in 1984 and De Waal (1996[a-b]) in 1995. The site was not restudied in 1999, as sufficient documentation exists. At the northern end, the Route Départementale borders the site and at the southern end the beach and the sea enclose it. Site dimensions are approximately 400 m from west to east and 160 m from north to south. The site is characterised by an extended concentration of ceramics and shell and lithic, shell and coral artefacts. Very limited amounts of ceramic off-site material have been found. Low grass and some shrub areas cover the soil that consists of compact, heavy reddish-brown clay. Surface visibility is very good for most parts of the site. Significant parts of the site, such as the refuse area and the burial area, have been almost completely destroyed by bulldozing activities that preceded the construction of the two restaurants that are nowadays situated on the Petite Rivière beach. Agricultural



0 to 10-20 cm: Compact dry, dark reddish brown (5YR;3/2) clay with a lot of archaeological material.

10-20 to 15-25 cm: Very compact, dark reddish brown (2.5YR;3/3) clay with a small artefact concentration.

15-25 to 30 cm: Very compact, weak red (2.5YR;4/2) clay without archaeological material.

30 to 35 cm: Very compact, weak red (2.5YR;4/2) clay with chalk nodules from the bedrock, without archaeological material.

> 35 cm: Compact, pinkish grey (5YR;8/2), chalky bedrock.

Pottery

Rock

Cittarium pica

Coral

Fig. A3.12. Anse Petite Rivière, unit 1 (50 x 50 cm), south section.

activities and the construction of houses have been causing damage to the northern part of the site, which is owned by the local Lalanne family. The southern 80 m, which has the densest surface distribution, is state property. Erosion and illegal collection of artefacts further threaten what is left of the site (De Waal 1996[b]).

3.10.2 Test units and stratigraphy

Bodu excavated 11 units measuring 2 x 2 m in the densest midden area of the site in 1984 (1985[c]). Except for photographs, these units have not been documented in detail. In 1995, a Leiden University team excavated 13 units measuring 50 x 50 cm (De Waal 1996[b]); (fig. A3.12).

3.10.3 Archaeological materials

The archaeological material collected at Anse Petite Rivière includes surface collections as well as material from the 1984 and 1995 test units. These were analysed and presented by De Waal (1996[b]). The surface material appeared to be quite indicative for the sub-surface situation, as for quantities and

different categories of material excavated. In 1996, however, the surface situation was less representative than in 1984, as a result of ongoing perturbation of the site.

3.10.3.1 Pottery

A total of 8940 sherds was analysed, mostly body sherds (74.1%), together amounting to a weight of 220,210 g (table A3.55). The appendages/other category represents 1.0% of the sample. This includes handles, lugs, pot-stands, spindle whorls, griddle legs, a spout, a body stamp, an *appliqué*, clay discs and unidentified appendages (table A3.56; fig. A3.13). Part of the pottery (1.4%) has been decorated by polychrome painting, zone-incised-crosshatching, incision, geometric modelling, zoomorphic and anthropomorphic modelled incised decoration, punctation, finger indentation and side lugs (table A3.57; fig. A3.14-A3.15). Most of the base shapes are flat or unidentified (table A3.58), and the griddle shapes are mostly straight, triangular or unidentified (table A3.59).

The morphological description of the pottery has been based on the analysis of 735 rims larger than 5 cm (De Waal 1996[b]:66-101). These demonstrate that the characteristic vessel shapes include jars, bowls and dishes with unrestricted simple contours (70.3%); (table A3.60; fig. A3.16). Dominant rim shapes are rounded (64.9%) and inward thickened (14.8%); (table A3.61). Wall thicknesses range mainly between 6-8 mm (40.5%) and 9-11 mm (39.2%) and most orifice diameters range between 21-30 cm (27.6%), 31-40 cm (19.5%), 1-10 cm (16.1%), 11-20 cm (14.3%) and 41-50 cm (12.9%); (tables A3.62-A3.63). Surface colours are predominantly red (29.2%), reddish brown (27.1%) and dark brown/very dark brown (17.1%); (table A3.64). Firing

	Number	Number %	Weight	Weight %
Rim	1368	15.2	48,457	22.0
Body	6623	74.1	124,004	56.3
Base	435	4.9	22,636	10.3
Griddle	429	4.8	19,842	9.0
Appendage/other	85	1.0	5271	2.4
Total	8940	100.0	220,210	100.0

Table A3.55. Number, percentages and weight (g) of sherds from Anse Petite Rivière.

	Number	Number %
Handle	7	8.2
Lug	20	23.5
Pot-stand	30	35.3
Spindle whorl	4	4.7
Griddle leg	4	4.7
Spout	1	1.2
Body stamp	1	1.2
Appliqué	1	1.2
Clay disc	11	12.9
Unident. appendage	6	7.1
Total	85	100.0

Table A3.56. Number and percentages of sherds within appendages/other categories from Anse Petite Rivière.

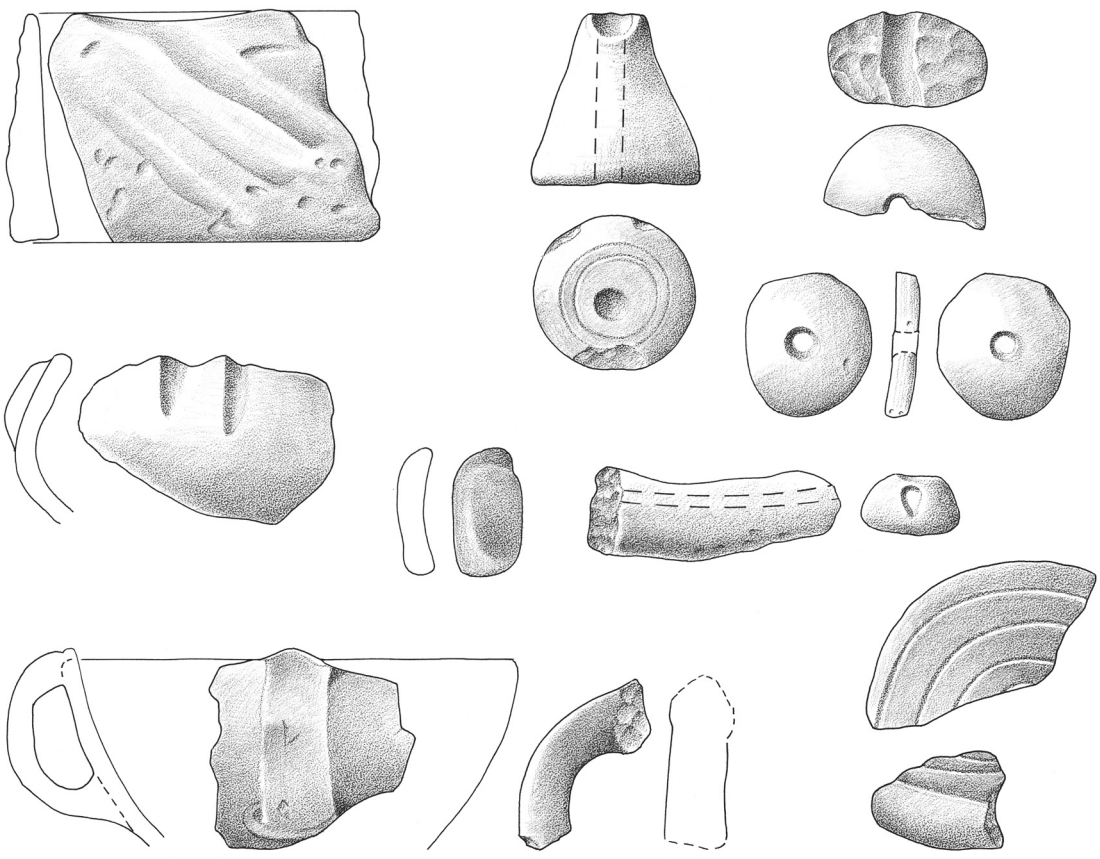


Fig. A3.13. Ceramic pot-stand, spindle whorls, *appliqué*, clay disc, spout, handles and body stamp from Anse Petite Rivière (scale 1:3).

	Number	Number %
Polychrome painting	17	13.3
Zoned-incised crosshatching	1	0.8
Incision	95	74.2
Modelling (geometric)	6	4.6
Modelled incised *appliqué* (anthropomorphic)	1	0.8
Modelled incised *appliqué* (zoomorphic)	3	2.3
Punctation	2	1.6
Finger indentation	1	0.8
Site lug	2	1.6
Total	128	100.0

Table A3.57. Number and percentages of sherds with particular Anse Petite Rivière decoration modes.

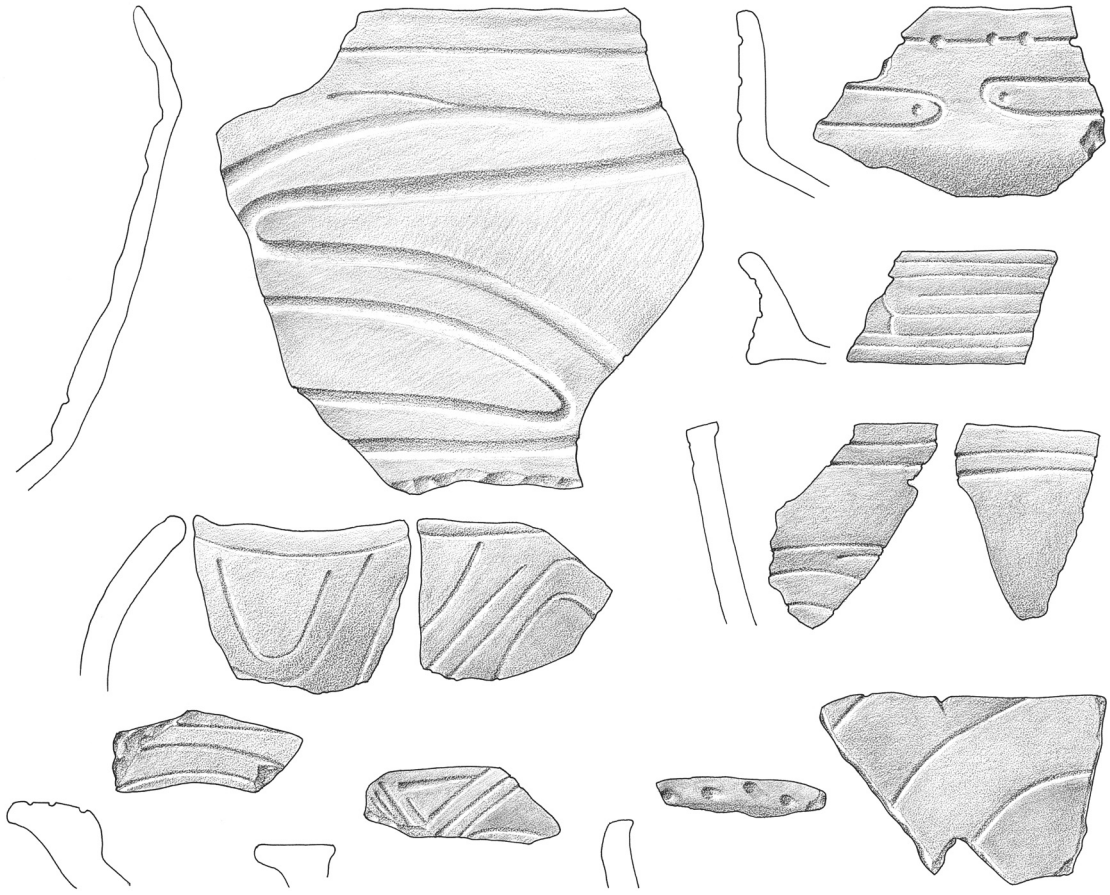


Fig. A3.14. Anse Petite Rivière pottery decorated by broad shallow incision, narrow incision and punctation (scale 1:4; top left scale 1:6).

	Number	Number %
Flat	300	69.0
Convex	14	3.2
Concave	10	2.3
Concave high	7	1.6
Pedestal/annular	2	0.5
Unidentified	102	23.4
Total	435	100.0

Table A3.58. Number and percentages of sherds within base shape categories Anse Petite Rivière.

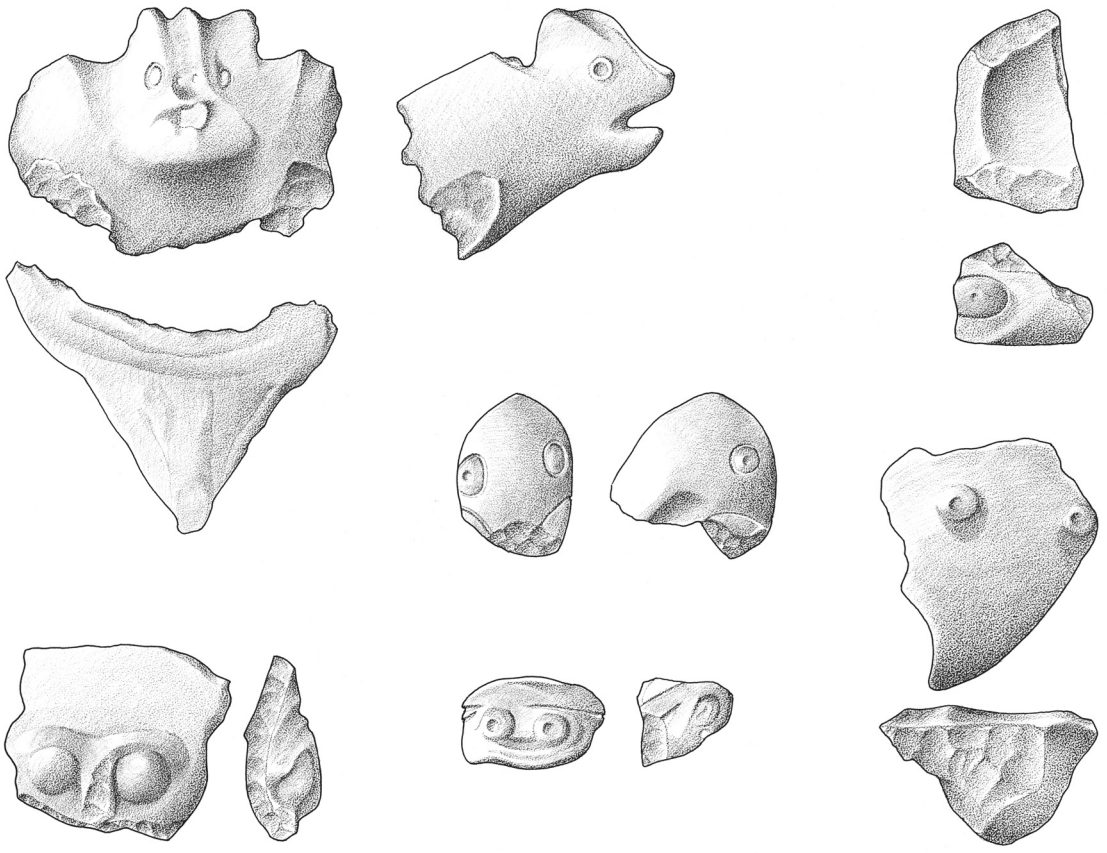


Fig. A3.15. Ceramic zoomorphic and anthropomorphic representations from Anse Petite Rivière (scale 1:4; top left scale 1:6).

	Number	Number %
Straight	69	16.1
Triangular	74	17.3
Overhanging	10	2.3
Rounded	4	0.9
Unthickened	2	0.5
Legged	25	5.8
Unidentified	245	57.1
Total	429	100.0

Table A3.59. Number and percentages of sherds within griddle shape categories from Anse Petite Rivière.

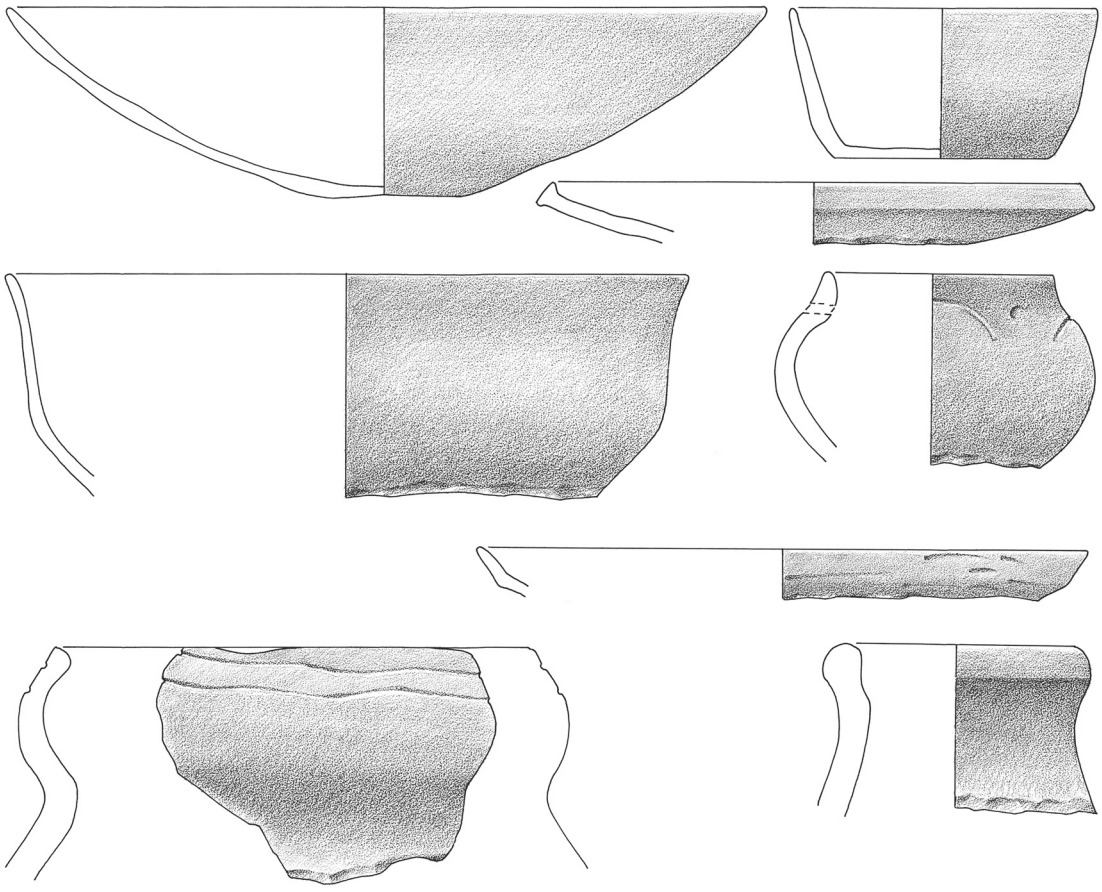


Fig. A3.16. Anse Petite Rivière vessel shapes (scale 1:6; second, third and fifth on the right scale 1:4).

	Number	Number %
Jar with unrestricted simple contour	121	16.5
Bowl with unrestricted simple contour	265	36.1
Dish with unrestricted simple contour	130	17.7
Bowl with restricted simple contour	78	10.6
Dish or bowl with unrestricted composite contour	38	5.2
Jar with unrestricted composite contour	5	0.7
Bowl with unrestricted inflected contour	14	1.9
Bowl or jar with restricted composite contour	5	0.7
Bowl/jar, independent restricted inflected contour	2	0.2
Unidentified	77	10.4
Total	735	100.0

Table A3.60. Number and percentages of sherds within vessel shape categories from Anse Petite Rivière.

	Number	Number %
Rounded	477	64.9
Flattened	44	6.0
Inward thickened	109	14.8
Outward thickened	43	5.9
Double thickened	8	1.1
Bevelled	4	0.5
Unidentified	50	6.8
Total	735	100.0

Table A3.61. Number and percentages of sherds within rim shape categories from Anse Petite Rivière.

	Number	Number %
1-5 mm	19	2.6
6-8 mm	298	40.5
9-11 mm	288	39.2
12-15 mm	55	7.5
Unidentified	75	10.2
Total	735	100.0

Table A3.62. Number and percentages of sherds within Anse Petite Rivière wall thickness categories.

	Number	Number %
1-10 cm	118	16.1
11-20 cm	105	14.3
21-30 cm	203	27.6
31-40 cm	143	19.5
41-50 cm	95	12.9
51-60 cm	27	3.7
61-70 cm	2	0.2
Unidentified	42	5.7
Total	735	100.0

Table A3.63. Number and percentages of sherds within Anse Petite Rivière orifice diameter categories.

	Number	Number %
Gray	47	6.4
Dark gray-black	12	1.6
Brown grey/grey brown	4	0.5
Dark grayish brown	16	2.2
Light brown/brown	29	4.0
Dark brown/very dark brown	126	17.1
Reddish-gray/dark reddish-gray	40	5.4
Reddish brown	199	27.1
Red	214	29.2
Unidentified	48	6.5
Total	735	100.0

Table A3.64. Number and percentages of sherds within Anse Petite Rivière exterior surface colour categories.

	Number	Number %
Complete reduction	84	11.4
Incomplete oxidation or reduction	29	4.0
Incomplete oxidation	3	0.4
Incomplete or relatively good oxidation	572	77.8
Unidentified	47	6.4
Total	735	100.0

Table A3.65. Number and percentages of sherds within Anse Petite Rivière firing colour categories.

	Number	Number %
Crude	6	0.8
Smoothed	78	10.6
Lightly burnished	97	13.2
Highly burnished	287	39.1
Polished	51	6.9
Scratched	69	9.4
Unidentified	147	20.0
Total	735	100.0

Table A3.66. Number and percentages of sherds within Anse Petite Rivière exterior surface finishing categories.

techniques include mainly incomplete or relatively good oxidation (77.8%) and complete reduction (11.4%); (table A3.65). Surface finishing is predominantly characterised by burnishing (52.3%), smoothing (10.6%) and scratching (9.4%); (table A3.66).

3.10.3.2 Lithic artefacts

A total of 70 lithic artefacts was collected (tables A3.67-A3.68). These include, among others, 22 water-worn pebbles (31.4%), nine grinding-stones (12.9%), six pebbles (8.5%), 17 flakes (24.3%), two beads (2.9%), two *zemis* (2.9%) and five unidentified artefacts. Several artefacts were made of basalt (32.9%), flint (27.1%), sandstone (15.7%), while other raw materials were incidentally encountered (De Waal 1996[b]:102-115); (fig. A3.17).

3.10.3.3 Shell artefacts

Anse Petite Rivière shell artefacts include several *Strombus gigas* artefacts, among which 13 axes, two scrapers, one pointed object, four beads, one *zemi* and 12 unidentified objects. A *Cittarium pica* fish hook, three *Cypraea* sp. scrapers, one scraper of unidentified shell and an unidentified *Cypraea* sp. object were found as well (De Waal 1996[b]:125-133); (tables A3.69-A3.70; fig. A3.18).

3.10.3.4 Coral artefacts

Anse Petite Rivière coral artefacts include 37 *Acropora cervicornis* rasp fragments, 52 *Acropora palmata* grinding-stone fragments, three polishing tools and two unidentified artefacts of *Porites porites*, five grinding-stones and one unidentified piece of *Siderastrea siderastrea* and one

	Total
Limestone	2 2.9
Pumice	1 1.4
Basalt	23 32.9
Flint	19 27.1
Sandstone	11 15.7
Diorite	3 4.3
Radiolite	2 2.9
Quartz	1 1.4
Granite	1 1.4
Quartzite	1 1.4
Unidentified	6 8.6
Total	70 100.0

Table A3.67. Number and percentages of Anse Petite Rivière rock types.

	Total
Water-worn pebble	22 31.4
Grinding stone	9 12.9
Pebble	6 8.5
Rubbing stone	1 1.4
Polishing stone	2 2.9
Preform	2 2.9
Flake	17 24.3
Flaked core	1 1.4
Flake tool	1 1.4
Bead	2 2.9
Zemi	2 2.9
Unidentified	5 7.1
Total	70 100.0

Table A3.68. Number and percentages of Anse Petite Rivière lithic artefact types.

Meandrina meandrites grinding object (De Waal 1996[b]:133-143); (table A3.71; fig. A3.19).

3.10.3.5 Shellfish remains

As for total weight counts, shellfish remains consist predominantly of *Cittarium pica* (70.7%) and *Strombus gigas* (17.8%). MNI counts are dominated by *Chiton* sp. (23.9%), *Cittarium pica* (18.9%), *Tegula* sp. (14.1%), *Nerita* sp. (13.5%) and for 11.9% by *Nodilittorina tuberculata* (De Waal 1996[b]:116-125); (table A3.72).

3.10.3.6 Animal remains

Grouard (2001) has studied 35048 faunal remains. Total MNI counts include 790 individuals, among them were fish (69.62%), crustaceans (19.24%), reptiles (3.29%), birds (3.29%), mammals (2.78%) and echinoderms (1.77%). Regarding the MNI counts, the exploited habitats include coral reefs (62%), deep channels (18%), shorelines (9%), terrestrial areas covered by vegetation (6%), bird habitats (4%), and mangrove (1%). The different ecosystems are represented in a balanced way, although the coral reef was slightly more exploited. The sample reflects a generalised subsistence economy and a diversity of catch techniques (Grouard 2001:252-255). The Anse Petite Rivière assemblage shows a large diversity in bird species and a specialisation in fishing and marine reptiles. The subsistence economy appears to be generalised (Grouard 2001:291, 299, 302).

Some worked turtle bone has been found in the

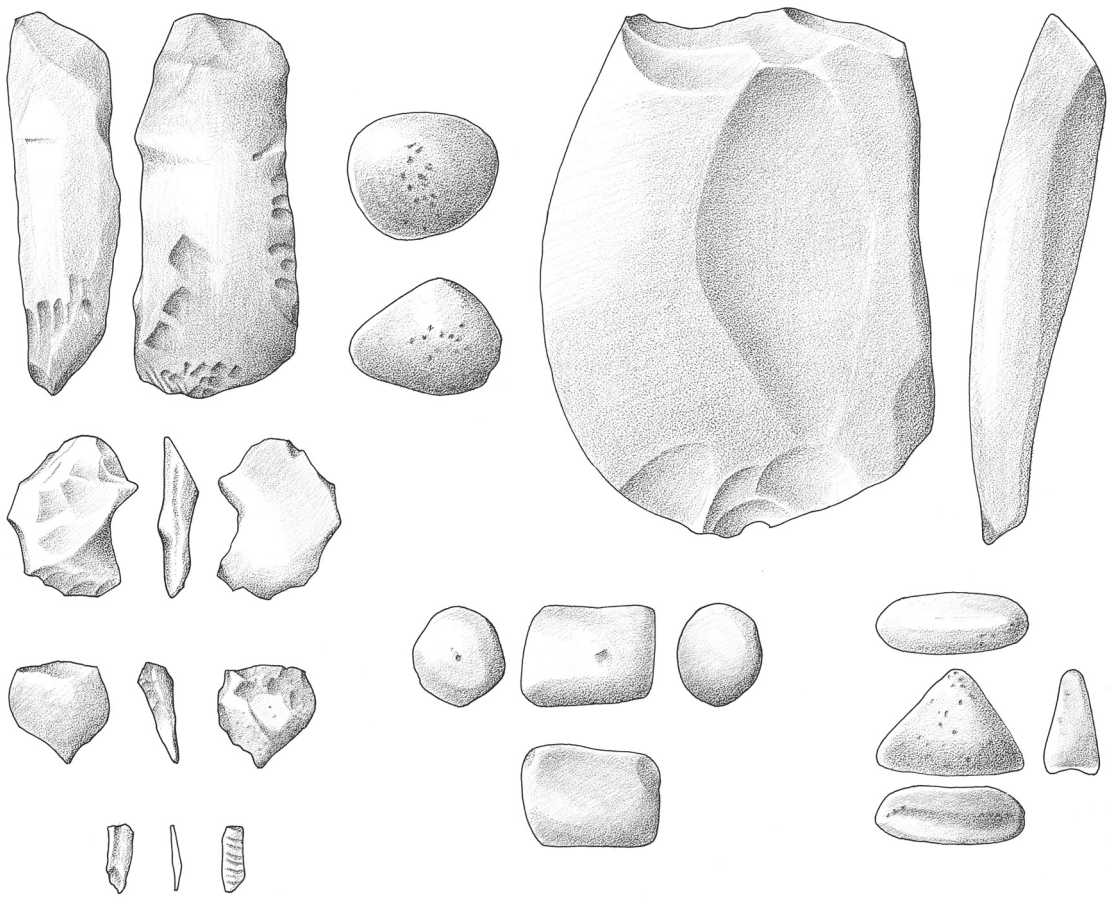


Fig. A3.17. Anse Petite Rivière lithic artefacts, including a quartzite axe preform (scale 1:4), a basalt pebble with hammering use-wear (scale 1:4), a basalt grinding stone (scale 1:6), three flint flakes (scale 1:1), a quartzite bead preform (scale 1:2) and a limestone *zemi* (scale 1:4).

	Total
Strombus gigas	33 84.6
Cittarium pica	1 2.6
Cypraea zebra	3 7.6
Cypraea cinera	1 2.6
Unidentified	1 2.6
Total	39 100.0

Table A3.69. Number and percentages of Anse Petite Rivière shell artefact raw materials.

	Total
Scraper	6 15.4
Axe	13 33.3
Pointed tool	1 2.6
Fish hook	1 2.6
Bead	4 10.2
Zemi	1 2.6
Unidentified	13 33.3
Total	39 100.0

Table A3.70. Number and percentages of Anse Petite Rivière shell artefact types.

	Rasp fragment	Grinding tool fragment	Polishing tool	Unidentified	Total
Acropora cervicornis	37 36.6				37 36.6
Acropora palmata		52 51.4			52 51.4
Porites sp.			3 3.0	2 2.0	5 5.0
Siderastrea siderastrea		5 5.0		1 1.0	6 6.0
Meandrina meandrites		1 1.0			1 1.0
Total	37 36.6	58 57.4	3 3.0	3 3.0	101 100.0

Table A3.71. Number and percentages of Anse Petite Rivière coral species and artefact types.

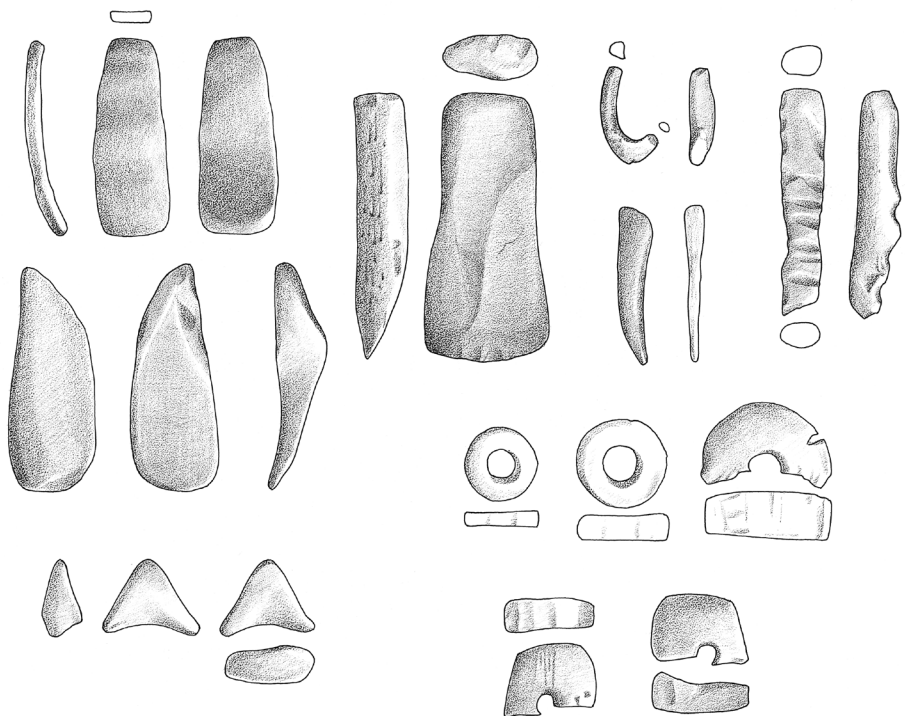


Fig. A3.18. Anse Petite Rivière shell artefacts from St*rombus gigas*, including two scrapers (scale 1:3), a *zemi* (scale 1:2), an adze (scale 1:4), a pointed tool (scale 1:2), an unidentified artefact (scale 1:4), four beads (scale 1:1) and a *Cittarium pica* fishhook (scale 1:2).

	MNI count	Total weight
Strombus gigas	16	6001
	1.5	17.8
Acanthopleura granulata	202	2002
	19.1	6.0
Cittarium pica	200	23,810
	18.9	70.7
Nerita sp.	143	142
	13.5	0.5
Nodilittorina tuberculata	126	32
	11.9	0.1
Tegula sp.	149	448
	14.1	1.3
Other	222	1230
	21.0	3.6
Total	1058	33,665
	100.0	100.0

Table A3.72. MNI counts, total weight (g) and percentages of the Anse Petite Rivière main shell species.

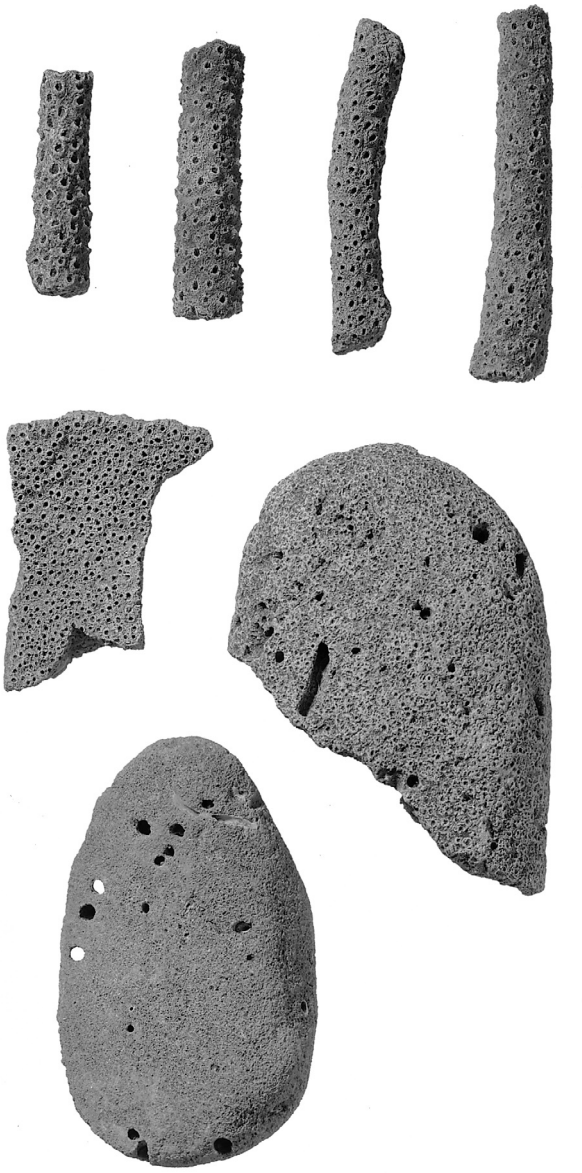


Fig. A3.19. Anse Petite Rivière coral artefacts, including *Acropora cervicornis* rasps and *Acropora palmata* grinding tools (scale 1:2).

Fig. A3.20. Dental pathology of an older woman buried at Anse Petite Rivière.

form of plates with flattened edges (Grouard 2001:298).

3.10.3.7 Human skeletal remains

Although the most important part of the Anse Petite Rivière burial area was completely destroyed just prior to the 1984 excavations, fragments belonging to three human burials that had been found in the midden area were collected at the archaeological depot on Guadeloupe and analysed by Steffen Baetsen in 1995. Burial 1 contained pelvic elements of two individuals, which could both be designated as male. This designation was confirmed by the analysis of the cranium, which also pointed to a male. The age at death of one of the two individuals was estimated around 40 to 50 years. No pathological features were found. Burial 1a contained the skeletal remains of a man, whose age at death was approximately 26 to 46 years. The presence of an *os wormianum* was the only pathological feature found in this burial. The *sutura lambdoidea*, at the back of the cranium, is followed by a double row of extra sutures, filled in with bone. This is not an anomaly but a congenital variation. Burial 1b contained a limited quantity of skeletal material, which had belonged to a rather small, older woman, whose age at death could not be estimated. She had suffered from a severe form of dental pathology (fig. A3.20). Results of these analyses are presented in more detail in De Waal (1996[b]:153-160).

3.10.4 Chronological assignment

The Anse Petite Rivière site can be largely attributed to the Late Ceramic A, although some isolated Early Ceramic B sherds have been encountered as well. Groningen radiocarbon dates (95.4%) for *Cittarium pica* samples of this site range between cal. AD 554 and 662, cal. AD 998 and 1160 and cal. AD 1302 and 1412. These dates coincide well with the ceramics that have been found at the site (De Waal 1996[b]:63).

3.11 POINTE DOUBLÉ (97110-014; SC26)

3.11.1 Site location and preservation

Bodu discovered and surveyed the Pointe Doublé site (x: 713,800; y: 1807,250), which is situated on the south-eastern tip of La Désirade, in 1984 (fig. 5.2). In 1999, the site was resurveyed. Site dimensions are 100 m north to south and 150 m west to east. The site is on a very rocky and relatively steep slope towards the sea. Coastal grassland covers 0-20 percent of the soil, which consists of rather compact, well-drained clayey sand. Surface visibility is very good. The surface distribution is thin and even and is characterised by flint and red chert flakes, hammer-stones and shell fragments including *Cittarium pica* and *Strombus gigas*. Not a single ceramic fragment has been found. As the dispersed distribution, the limited number and the heavy fragmentation of the finds suggested that the site was rather shallow, no test units were excavated. Bodu remarked that the material he collected during his survey appeared to be part of a small concentration next to a large rock situated in the middle of the site. He suggested that this rock provided protection against the wind while working at the site, and it may also have been useful as an anvil during the debitage of the local raw material. The site is very close to the Pointe Séraphine site, which is rather similar. A small amount of lithic off-site material has been found west of the site, in the area leading towards the Pointe Séraphine site (97110-021). The site appears to be very superficial and therefore easily affected by erosion, but is still moderately well preserved.

3.11.2 Archaeological materials

The material described is from surface collections made in 1984 and 1999. It consists mainly of lithic artefacts and one shell artefact was found as well. This is a worked *Strombus gigas* pointed object that may be a fragment of an axe. Although Bodu collected shell fragments and one parrotfish jaw from the surface, these were not available for analysis and have thus not been included in the description below.

Bodu (1984) has provided a description of the 149 stone artefacts he collected. These include two hammering implements, used for flake removal from a core by hard direct percussion, 30 cores (22 are small) used for *ad-hoc*, random production of small flakes, 102 small flakes that are possible grater board teeth for manioc processing, and ten irregularly formed tools, without debitage marks. The mediocre raw material, the direct hard percussion technique, the absence of organised debitage, the deliberate production of small fragments and the disposal of a large quantity of raw material suggest that the site was used for the manufacture of simple tools for groups living nearby. The debitage was determined not by the quality but by the quantity of available raw material. Five artefacts have undergone a real transformation from flakes to actual tools. Production

	Total
Local igneous rock	11 42.3
Light gray chert	1 3.9
Light red/light gray chert	3 11.5
Local red chert	9 34.6
White chert	2 7.7
Total	26 100.0

Table A3.73. Number and percentages of rock types collected at the Pointe Doublé surface in 1999.

	Total
Pebble fragment	7 26.9
Flaked pebble	3 11.5
Flake	8 30.9
Flake core	3 11.5
Hammer-stone	2 7.7
Shatter piece	3 11.5
Total	26 100.0

Table A3.74. Number and percentages of lithic artefact types collected at the Pointe Doublé surface in 1999.

characteristics are very comparable to those of the Morne de Baie Mahault site (97110-011).

In 1999, very few clear lithic artefacts were collected (tables A3.63-A3.74). These include two flaked pebbles, one pebble hammer-stone with pits and scar negatives at both ends, one pebble flake, six pebble fragments, one flaked pebble hammer-stone with pits at one side and one possibly natural unidentified fragment of igneous rock. Seven flakes, one flake core and a flaked pebble of local red chert, two flake cores and a shatter piece of light red/gray chert, a shatter piece and a broken natural piece of white chert, one light gray chert shatter piece and a natural chalcedony piece were collected as well. In addition, natural pieces of red chert were found.

3.11.3 Chronological assignment

The chronological assignment for the site is largely absent, as neither ceramics nor ^{14}C samples could be collected for analysis. Bodu suggested that the inhabitants of the Anse Petite Rivière site exploited Pointe Doublé. It is safer to assume that the site has been exploited on a very small scale from time to time by people living at different sites on La Désirade, and maybe even on Guadeloupe, in pre-Columbian times. No real blades have been found. This suggests that the sites are ceramic, as no pre-ceramic sites have been revealed with similar material (Knippenberg personal communication 2001). Pre-ceramic sites have not been discovered in the research area. In the archaeological Edgar Clerc Museum, however, this site is presented as a pre-ceramic site on the basis of the lack of pottery on the surface.

3.12 TROPIQUE (97110-016; SC13)

3.12.1 Site location and preservation

The Tropique site (x: 708,700; y: 1805,300) was surveyed by Bodu in 1984 (1985[c]) on the basis of information provided by Père Guilbert and it was restudied in 1999. It is located on the highest part of the plateau around a pool on a rather flat terrain (fig. 5.2). The site is located some 100 m from a large drainage channel on the central plateau. Bodu described a site area of approximately 400 m^2 but site dimensions were estimated at 185 m north-south and 50 m east-west in 1999.

	Number	Number %	Weight	Weight %
Rim	10	4.4	68	4.0
Body	212	92.6	1525	89.4
Base	0	0.0	0	0.0
Griddle	0	0.0	0	0.0
Appendage/other	7	3.0	112	6.6
Total	229	100.0	1705	100.0

Table A3.75. Number, percentages and weight (g) of sherds from the 1984 Tropique collection.

	Pebble	Pebble fragment	Active or passive grinding-stone	Active grinding-stone	Flake	Unidentified	Total
Local igneous rock	2 18.2	5 45.4	1 9.1	1 9.1		1 9.1	10 90.9
Local red chert					1 9.1		1 9.1
Total	2 18.2	5 45.4	1 9.1	1 9.1	1 9.1	1 9.1	11 100.0

Table A3.76. Number and percentages of rock types and lithic artefact types from the 1984 Tropique surface collection.

The surface distribution is patchy and three concentrations could be identified in 1999. The surface material consists almost exclusively of ceramics. Some fragments of *Cittarium pica* were found as well, but these may have been transported to the site by soldier crabs. On the highest part of the site several worked stones were found while to the north-west and north-east of this area ceramic sherds were found on gentle slopes. Some ceramic off-site material has been found. As the dispersed distribution, the limited number and the heavy fragmentation of the finds suggested that the site was rather shallow, no test units were excavated. Dense, thorny bush and leaves cover 21-40 percent of the soil, which consists of a loose medium structured, well-drained mixture of sand, gravel and stone in a loamy matrix. Surface visibility is bad and passage across the terrain is troublesome. Bodu described the site to be partially destroyed by erosion and by a sandy road. In 1999, the site appeared to be heavily disturbed as part of the terrain is cultivated.

3.12.2 Archaeological materials

The material described consists of surface collections made in 1984 and 1999, including 1729 g of pottery. The lithic artefacts are from the 1984 and 1999 surface collections. Bodu collected three shell artefacts in 1984.

3.12.2.1 Pottery

Bodu collected 229 sherds in 1984, mostly body sherds (92.6%), weighing 1705 g (table A3.75). The appendages/ other category, including seven handle fragments, represents 3.0% of the sample. No red slipped, decorated sherds, bases nor griddles were found. As it had been decided to use rims larger than 5 cm for further investigation, and no such rims had been found in the 1984 collection, no morphological and technological description could be provided for this sample.

In 1999, two rims and three body fragments were collected, weighing 24 g. No fragments belonging to the appendages/ other category, red slipped, decorated sherds, bases or griddles were found. The morphological description of the pottery could be based on the analysis of one rim larger than 5 cm. This belongs to a jar with an unrestricted simple contour with a rounded rim, a wall thickness between 6-8 mm and an orifice diameter between 21-30 cm. The outer surface colour is reddish brown, the firing technique consists of incomplete or relatively good oxidation and the outer surface is finished by high burnishing.

3.12.2.2 Lithic artefacts

Bodu collected several igneous rock artefacts from the surface in 1984, including a large pebble fragment with pitted areas and abrasion on both faces, one pebble fragment with abrasion on one face (possible active or passive grinding-stone), one fragment with a slightly concave abraded face, one pebble fragment with possible abrasion on one face (possible active grinding-stone), one pebble with possible abrasion on the side edges, one complete pebble with possible active abrasion on one end, three pebble fragments without use wear and one unidentified fragment. One flake core of local red chert was found as well (table A3.76).

The 1999 surface collection consists of five local igneous rock artefacts, including one pebble without use wear, a pebble fragment, one pebble fragment with hammering traces (possible hammer-stone), a large pebble fragment with indistinct abrasion on both faces (passive grinding-stone) and one pebble fragment with abrasion on both faces (active or passive grinding activities).

3.12.2.3 Shell artefacts

Bodu collected one axe and two unidentified objects of *Strombus gigas* from the surface of the site in 1984.

3.12.3 Chronological assignment

The site yielded Late Ceramic A pottery (unidentified style).

3.13 VOÛTE À PIN (97110-018; SC12)

3.13.1 Site location and preservation

The Voûte à Pin site (x: 708,975; y: 1806,025) was discovered by Pères Guilbert and Pinchon and it was partially destroyed by their excavations. Bodu (1985[c]) surveyed the site in 1984 and it was restudied in 1999. The site towers above the riverbed, as it is situated at the base of a steep west slope, some 15 m above the Rivière ravine (fig. 5.2). The site is situated 15 minutes' walk from the northern coast, although this route is not very accessible. The site is easily reached from the plateau though. Voûte à Pin is a cave site, which consists of two main chambers, measuring 6 x 5 m and 8 x 6 m respectively. The cave has two entrances, measuring 2 x 1.5 m, and a small 50 x 50 cm window-like opening. The archaeological material on the surface consists of heavily fragmented ceramics and some human skeletal material was collected at the surface in the back of the cave. The northern cavern contained hardly any archaeological material on the surface and most of the material was collected at the southern cavern. Almost no material was found outside the cave and no off-site material has been found. The soil in the cave consists of loose, coarse sand, covered by bat guano.

Surface visibility is very good. Vegetation surrounding the cave consists of dense trees and shrubby vegetation. The terrain near the cave is claimed by Mr. Etienne Speno (Baie Mahault). The site, and the southern cavern in particular, is seriously damaged as a result of illegal excavation. The archaeological layer has been almost completely destroyed. The northern cavern appears to be less perturbed. Moreover, the site has been known for a long time to the inhabitants of La Désirade and regular visits to the cave may contribute to its perturbation. Some older inhabitants regard the site to be a ritual place and it is even indicated on the IGN topographical map. Others are convinced that buccaneer treasures were hidden in La Désirade caves in colonial times, and the widespread idea that gold is to be found in caves is not very helpful to site preservation either.

3.13.2 Test units and stratigraphy

Two 1 m^2 units were excavated in the largest room of the cave (fig. A3.21). They demonstrated that the archaeological layer had been completely destroyed as a result of prior, non-documented excavations.

3.13.3 Archaeological materials

The material described includes material from the 1984 and 1999 surface collections and material from the 1999 test units. Very small amounts of archaeological material could be collected. The 1984 collection consists of pottery and one lithic artefact, and the 1999 collection includes pottery, shellfish remains, faunal remains, human skeletal remains, lithic artefacts and one coral artefact. The sub-surface material is quite comparable to what was found

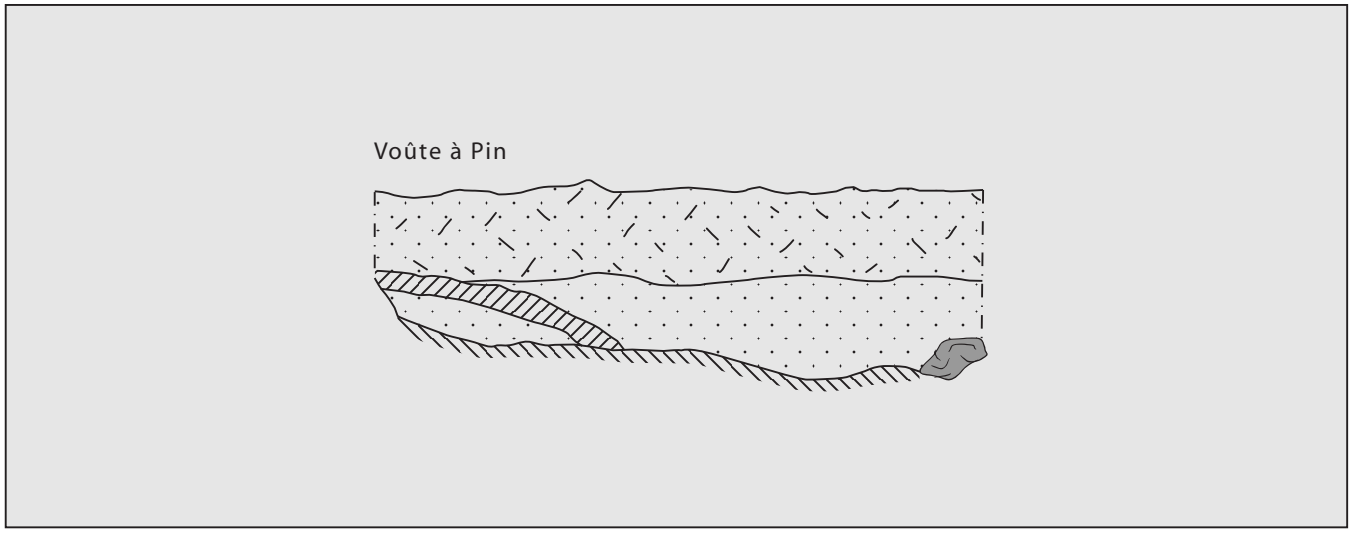


Fig. A3.21. Voûte à Pin, unit 2 (1 m^2), north section.

on the surface in the cave. Both surface and sub-surface information indicates that excavations in the past seriously destroyed the site.

3.13.3.1 Pottery

Bodu collected four remarkably well finished body sherds in 1984, weighing 132 g, without decorations or red slipped surfaces. As it had been decided to use rims larger than 5 cm for further investigation, and no such rims had been found in the 1984 collection, no morphological and technological description could be provided for this sample. Bodu remarks that the ceramics that were collected by Pères Guilbert and Pinchon in particular appear to have been of an extremely high quality. Unfortunately, it is unknown where these fragments have been stored and they were not available for analysis.

In 1999, 44 sherds were collected, mostly body sherds (45.5%), weighing 1240 g (table A3.77). No fragments belonging to the appendages/other category were found. Eight sherds have red slipped surfaces (18.2%) and none of the sherds are decorated. All eight base fragments are flat and all six griddle fragments are unidentified.

The morphological description of the 1999 pottery collection has been based on the analysis of six rims larger than 5 cm. These demonstrate that the characteristic vessel shapes include jars, bowls and dishes with unrestricted simple contours (83.4%); (table A3.78). The dominant rim

	Number	Number %	Weight	Weight %
Rim	10	22.7	447	36.0
Body	20	45.5	328	26.5
Base	8	18.2	251	20.2
Griddle	6	13.6	214	17.3
Appendage/other	0	0.0	0	0.0
Total	44	100.0	1240	100.0

Table A3.77. Number, percentages and weight (g) of sherds from the 1999 Voûte à Pin collection.

	Number	Number %
Jar with unrestricted simple contour	1	16.7
Bowl with unrestricted simple contour	3	50.0
Dish with unrestricted simple contour	1	16.7
Bowl with unrestricted composite contour	1	16.7
Total	6	100.0

Table A3.78. Number and percentages of sherds within vessel shape categories from the 1999 Voûte à Pin collection.

	Number	Number %
Rounded	5	83.3
Inward thickened	1	16.7
Total	6	100.0

Table A3.79. Number and percentages of sherds within rim shape categories from the 1999 Voûte à Pin collection.

	Number	Number %
6-8 mm	4	66.7
9-11 mm	2	33.3
Total	6	100.0

Table A3.80. Number and percentages of sherds within wall thickness categories from the 1999 Voûte à Pin collection.

	Number	Number %
11-20 cm	2	33.3
21-30 cm	2	33.3
31-40 cm	1	16.7
Unidentified	1	16.7
Total	6	100.0

Table A3.81. Number and percentages of sherds within orifice diameter categories from the 1999 Voûte à Pin collection.

	Number	Number %
Reddish-gray/dark reddish-gray	1	16.7
Reddish brown	3	50.0
Red	2	33.3
Total	6	100.0

Table A3.82. Number and percentages of sherds within exterior surface colour categories from the 1999 Voûte à Pin collection.

	Number	Number %
Complete reduction	1	16.7
Incomplete or relatively good oxidation	5	83.3
Total	6	100.0

Table A3.83. Number and percentages of sherds within firing colour categories from the 1999 Voûte à Pin collection.

	Number	Number %
Lightly burnished	2	33.3
Highly burnished	1	16.7
Polished	3	50.0
Total	6	100.0

Table A3.84. Number and percentages of sherds within exterior surface finishing categories from the 1999 Voûte à Pin collection.

shape is rounded (83.3%); (table A3.79). Wall thicknesses are mainly 6-8 mm (66.7%) and orifice diameters range between 11-20 cm (33.3%), 21-30 cm (33.3%) and 31-40 cm (16.7%) and 16.7% remains unidentified (tables A3.80-A3.81). Most of the outer surfaces are reddish brown (50%) or red (33.3%), the dominant firing technique is incomplete or relatively good oxidation (83.3%) and the outer surfaces are burnished (50%) or polished (50%); (tables A3.82-A3.84).

3.13.3.2 Lithic artefacts

Bodu collected one igneous rock pebble with very smooth faces, one of which had been used for active grinding/abrading activities, from the surface of the site in 1984.

The 1999 surface collection included igneous rock pieces such as one fragment, which looks like a passive abrading stone with one face with an abraded area, one pebble, one fragment, and one pebble with flake removals, one face with abrasion, which could have functioned as a passive grinding/abrading stone. One red chert shatter piece and one limestone rock fragment, which could be a flake, with one edge part which has been abraded although its usage remains indistinct, were found as well (table A3.85).

3.13.3.3 Coral artefacts

One heavily used *Acropora palmata* active grinding tool fragment was collected in 1999.

3.13.3.4 Shellfish remains

A very limited amount of shell was found in 1999, *Cittarium pica* being most abundant (table A3.86). Other shell species, including *Acanthopleura granulata*, *Astraea* sp., *Bulimulus guadalupensis*, *Pleurodonte* sp., *Purpura patula*, *Sleurodonta nux*, and *Strombus gigas*, were found to a far lesser extent.

3.13.3.5 Animal remains

A very small sample of faunal remains was collected (total

	Pebble	Fragment	Passive grinding-stone	Possible flake	Shatter	Total
Local igneous rock	1	1	2			4
	16.7	16.7	33.2			66.6
Local red chert					1	1
					16.7	16.7
Limestone				1		1
				16.7		16.7
Total	1	1	2	1	1	6
	16.7	16.7	33.2	16.7	16.7	100.0

Table A3.85. Number and percentages of rock types and lithic artefact types from the 1999 Voûte à Pin surface collection.

	MNI count	MNI weight	Fragment weight	Total weight
Cittarium pica	15	330	64	394
	42.9	57.7	85.3	60.9
Other	20	242	8	250
	57.1	42.3	10.7	38.6
Unidentified	0	0	3	3
	0.0	0.0	4.0	0.5
Total	35	572	75	647
	100.0	100.0	100.0	100.0

Table A3.86. MNI counts, MNI weights (g), fragment weight (g), total weight (g) and percentages of the main shell species from the 1999 Voûte à Pin collection.

MNI 5, total weight 13 g). MNI counts, excluding intrusive species, show that the 2/5 inch sample has a terrestrial component (83.2%) consisting of land hermit crab, mountain crab and land crab. Without land hermit crab included the terrestrial component makes up 49.9% of the total sample (Nokkert in appendix 5).

3.13.3.6 Human skeletal remains

Some human skeletal remains were found, including four fragments consisting of a proximal part of the first phalanx of a right foot, and fragments of a right clavicle, a rib, a sacrum and nine unidentified fragments (12 g in total). In the back of the northern cavern two fragments of a left radius, one fragment of a left ulna and five unidentified fragments were found on the surface (26 g in total). Unfortunately, because of the fragmentation and bad conservation of the material it provides a very limited amount of information (Nokkert personal communication 2001).

3.13.4 Chronological assignment

The site yielded early Late Ceramic A pottery, which can be dated to approximately AD 800-1000.

3.14 POINTE SÉRAPHINE (97110-021; SC01)

3.14.1 Site location and preservation

The Pointe Séraphine site (x: 713,500; y: 1807,125) was discovered on the southern coastal plain of La Désirade, at approximately 50 m west of the lighthouse, during the 1999 surveys (fig. 5.2). The terrain is rather flat and the slope leading to the sea borders it in the south. Site dimensions are 170 m from east to west and 85 m from north to south. The archaeological material appears to be limited to the surface and consists of an even distribution of flakes and hammer-stones fashioned from locally available rocks and *Strombus gigas* fragments. A very limited amount of lithic off-site material has been encountered east of the site, in the area leading to the Pointe Doublé site (97110-014), and west of the site, in the area leading to the Morne de Baie Mahault site (97110-011). Very little vegetation consisting of some small shrub and coastal grassland, covers 0-20 percent of the soil, which consists of compact, well-drained sand with a moderate structure. Surface visibility is very good. As the terrain is not level and hardly any vegetation protects the soil, it is deemed that erosion may have exerted an important effect on the artefact distribution. Moreover, steep erosion

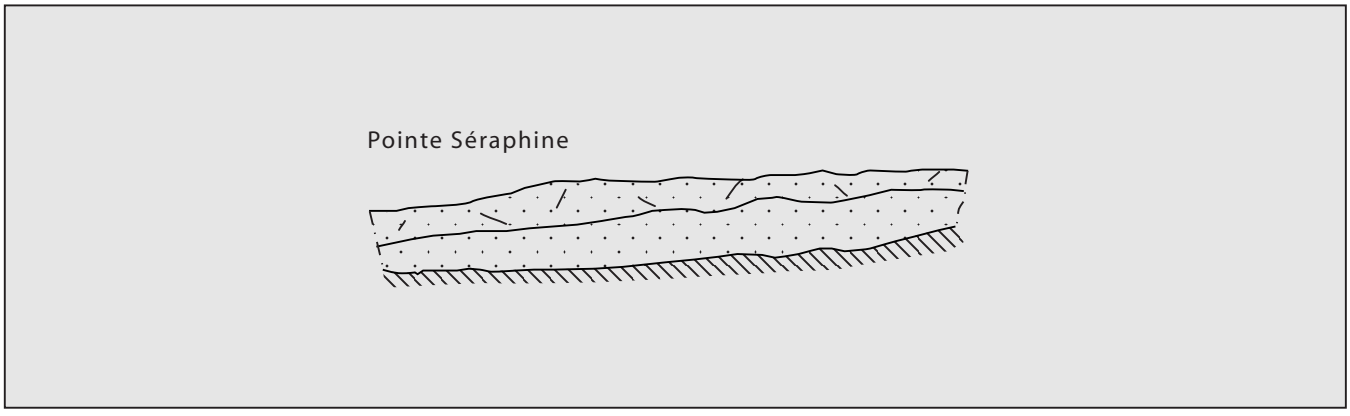


Fig. A3.22. Pointe Séraphine, unit 2 (1 m^2), north section.

channels are present nowadays, reinforcing the rate and impact of this process.

3.14.2 Test units and stratigraphy

Two test units measuring 1 m^2 were excavated (fig. A3.22). No real archaeological layer has been identified and most artefacts were collected at the surface. For both units, a 20 x 20 cm sample in the north-west corner has been sieved over 2 mm screens. The north-west corner unit 1 was located at 713464.290; 1807056.802; 14.44 (Guadeloupe - Ste. Anne system) or 16°19′56.8552″; -61°0′20.9039″; -29.42 (WGS84). The north-west corner unit 2 was located at 713432.010; 1807030.967; 9.69 (Guadeloupe - Ste. Anne system) or 16°19′56.0252″; -61°0′21.9997″; -34.16 (WGS84).

3.14.3 Archaeological materials

The material described includes surface collections and material from the test units from the 1999 fieldwork. Several lithic artefacts were collected, together with two shell artefacts. These are mostly from the surface of the site.

3.14.3.1 Lithic artefacts

During the 1999 fieldwork, several igneous rock artefacts were collected (tables A3.87-A3.88). These include two hammer-stone pebbles (pits at both ends, a side and one face), four pebble flakes, two pebble fragments, a flake core, three small probably natural pebbles, 14 unidentified probably natural fragments and one non-modified large pebble (one completely pecked face, the other face has pecked sides). One modified sharp edged limestone pebble fragment and 17 flakes, five flake cores from a pebble (few negatives), four shatter pieces (of which one is a possible flake from reddish unidentified material with white chert veins) and more than 215 natural non-modified fragments of red chert were found. One red chert flake core of another variety of rock type was found as well. This is more flint-like chert, slightly translucent and, although it may be local, it is different from what is generally found at the lithic exploitation sites on La Désirade. One flake and one large shatter piece of dark gray chert (similar to Morne de Baie Mahault site material and slightly different from Pointe Doublé site material) were collected as well.

3.14.3.2 Shell artefacts

One pointed object and one heavily polished adze of *Strombus gigas* were collected in 1999 and 2000.

3.14.4 Chronological assignment

The chronological assignment for the site remains largely

	Total
Local igneous rock	29 49.2
Local red chert	26 44.1
Red chert	1 1.7
Local dark gray chert	2 3.3
Limestone	1 1.7
Total	59 100.0

Table A3.87. Number and percentages of Pointe Séraphine rock types.

	Total
Pebble	4 6.8
Pebble fragment	3 5.1
Flake	22 37.3
Flake core	7 11.9
Hammer-stone	2 3.3
Fragment	16 27.1
Shatter piece	5 8.5
Total	59 100.0

Table A3.88. Number and percentages of Pointe Séraphine lithic artefact types.

undetermined, as neither ceramics nor ^{14}C samples could be collected for analysis. The Morne de Baie Mahault (97110-011) and Pointe Doublé sites (97110-014) were probably exploited on a very small scale from time to time by people living at different sites on La Désirade, and maybe even on Guadeloupe, in pre-Columbian times. No real blades have been found. This suggests that the sites are ceramic, as no pre-ceramic sites have been discovered yielding similar material (Knippenberg personal communication 2001). Pre-ceramic sites have not been found in the research area.

3.15 AU VENT (97110-022; SC02)

3.15.1 Site location and preservation

The Au Vent site (x: 713,125; y: 1807,150) was discovered on top of a small hill, north-east of the lighthouse of La Désirade, during the 1999 surveys (fig. 5.2). Site dimensions are 60 m east-west and 50 m north-south. The archaeological material on the surface consists of small pottery sherds and flakes of locally available rocks, associated with colonial and sub-recent material. As the dispersed distribution, the limited number and the heavy fragmentation of the finds suggested that the site was rather shallow, no test units were excavated. Some off-site material, consisting of pre-Columbian ceramics, was found south-west of the site. Cactaceous savannah vegetation covers 0-20 percent of the soil, which consists of medium textured, well-drained compact sand. Surface visibility is very good. Erosion and cultivation of the terrain in the past appear to have disturbed the find distribution. The terrain is not in use nowadays.

3.15.2 Archaeological materials

The material described includes surface collections made in 1999. A very limited amount of pottery was collected. Fragments of *Cittarium pica* and *Strombus gigas* were observed on the surface of the site, but they were not collected. The pottery sample includes two rims and 15 body sherds, weighing 170 g. No red slipped or decorated sherds were collected, and no fragments belonging to the appendage/other category or bases or griddles were found. One rim larger than 5 cm was found. This is part of a bowl with an unrestricted composite contour with a rounded rim. Wall thickness is between 9-11 mm and orifice diameter is between 21-30 cm. The outer surface colour is dark brown/very dark brown, firing technique consists of incomplete or relatively good oxidation and the outer surface is highly burnished.

3.15.3 Chronological assignment

The site yielded Late Ceramic A pottery (unidentified style).

3.16 GRANDE RAVINE (97110-023; SC03)

3.16.1 Site location and preservation

The Grande Ravine site (x: 712,750; y: 1807,250) was discovered on a hilltop on the eastern plateaus of La Désirade, to the south of the road leading to the rubbish-dump, during the 1999 surveys (fig. 5.2). The site is located on a terrain bordered by agaves. Site dimensions are 150 m east-west and 50 m north to south. The archaeological material is rather dispersed on the surface and consists of small pottery sherds and flakes of locally available rock, associated with colonial and sub-recent material. As the dispersed distribution, the limited number and the heavy fragmentation of the finds suggested that the site was rather shallow, no test units were excavated. Grass covers 21-40 percent of the soil, which consists of well drained, coarse sand in a clayey matrix. Surface visibility is bad. Some ceramic off-site material was found north-west of the site. Erosion and cultivation of the terrain in the past appear to have disturbed the find distribution. The terrain is used from time to time to herd goats nowadays.

3.16.2 Archaeological materials

The material described includes the 1999 surface collection. Three rims and 42 heavily fragmented and weathered body sherds, weighing 534 g, were collected. Two sherds (4.4%) had red slipped surfaces and no decorated sherds were found. As it had been decided to use rims larger than 5 cm for further investigation, and no such rims had been found, no morphological and technological description could be provided for the ceramics of this site.

3.16.3 Chronological assignment

The site yielded Late Ceramic A pottery (unidentified style).

3.17 SITE 4 (97110-024; SC04)

3.17.1 Site location and preservation

Site 4 (x: 712,900; y: 1807,075) was discovered at the foot of a hill on the eastern plateaus of La Désirade, north of the road leading to the lighthouse, during the 1999 surveys (fig. 5.2). Site dimensions are 40 m east to west and 35 m

north to south. The archaeological material on the surface consists of small pottery sherds and flakes of local rocks. No archaeological material has been found on the hilltop and almost no off-site material was found. As the dispersed distribution, the limited number and the heavy fragmentation of the finds suggested that the site was rather shallow, no test units were excavated. Cactaceous savannah vegetation covers 0-20 percent of the soil, which consists of coarse, well-drained, sand in a clayey matrix. Surface visibility is very good. Erosion and cultivation of the terrain in the past appear to have disturbed the find distribution, but very serious perturbation is caused by some deep erosion gullies running across the site. The terrain is not used nowadays.

3.17.2 Archaeological materials

The material described includes the 1999 surface collection, which comprises 746 g of pottery, one unidentified flaked artefact of local volcanic rock and one pointed *Strombus gigas* object with an unidentified function. Four probably naturally occurring red chert fragments were collected as well. A total of 32 sherds was collected, including three rims and 29 body sherds, weighing 746 g. No fragments belonging to the appendages/other category, or bases or griddles were found. Two red slipped sherds (6.3%) were decorated with fine, narrow incisions. Three rims larger than 5 cm have been revealed. These were all part of dishes with unrestricted simple contours and two rims are inward thickened and the other is rounded. Wall thicknesses range between 6-8 mm for two fragments and 9-11 mm for the other and orifice diameters are 21-30 cm and for two rims orifice diameters could not be identified. The three rims have reddish brown outer surfaces, firing technique consists of incomplete or relatively good oxidation (one of the sherds is irregularly fired) and the finishing of the outer surfaces includes polishing and the finishing of two rims could not be identified as a result of heavily weathered surfaces.

3.17.3 Chronological assignment

The site yielded Late Ceramic A pottery (unidentified style).

3.18 SITE 5 (97110-025; SC05)

3.18.1 Site location and preservation

Site 5 (x: 712,525; y: 1807,875) was discovered on a flat terrain on the eastern plateaus of La Désirade, to the west of a sandy road leading to Grand Abaque, during the 1999 surveys (fig. 5.2). Site dimensions are 40 m east to west and 40 m north to south. The archaeological material on the surface consists of a very small number of heavily fragmented pottery sherds. As the dispersed distribution, the limited number and the heavy fragmentation of the finds suggested that the site was rather shallow, no test units were excavated. No off-site material was found. Grass covers 21-40 percent of the soil, which consists of well drained, coarse sand in a clayey matrix. Surface visibility is very bad. Erosion and cultivation of the terrain in the past appear to have disturbed the find distribution. The terrain is not in use nowadays.

3.18.2 Archaeological materials

The material described includes the 1999 surface collection, which consists exclusively of eight sherds (36 g) of pottery. As it had been decided to use rims larger than 5 cm for further investigation, and no such rims had been found, no morphological and technological description could be provided for the ceramics of this site.

3.18.3 Chronological assignment

The site yielded Late Ceramic A pottery (unidentified style).

3.19 GRAND ABAQUE 1 (97110-026; SC06)

3.19.1 Site location and preservation

The Grand Abaque 1 site (x: 712,375; y: 1808,425) was discovered in the north-eastern part of La Désirade, on a plain extending between Pointe à Adrien and Pointe à Mombin, during the 1999 surveys (fig. 5.2). Mr. René Berchel (Baie Mahault) claims ownership of the site terrain. Site dimensions are 150 m from east to west and 100 m from north to south. The archaeological material on the surface consists of a dense and even distribution of heavily fragmented pottery sherds, shellfish remains and lithic and shell artefacts. A small isolated concentration of heavily fragmented and weathered sherds is located quite close to the site and a limited amount of ceramic off-site material was found north-east of the site. Grass and thorny brushwood with acacias cover 61-80 percent of the soil, which consists of loose, fine and well-drained, reddish brown clayey sand. Passage across the terrain is very problematic but surface visibility is good. The site appears to have been badly disturbed as a result of erosion processes and small-scale horticulture. Part of the terrain is used for cultivation and the herding of goats nowadays.

3.19.2 Test units and stratigraphy

Two 2 x 2 m test units were excavated, which demonstrated

the existence of a thin archaeological layer between 0-10/15 cm below the surface (fig. A3.23). Smaller amounts of archaeological material were found up to 30 cm depth. In level 3 of unit 2 (20-30 cm) seven features were identified. After sectioning these, features 001, 002, 004 and 006 appeared to be natural. Features 003, 005 and 007 were identified as possible post-holes. It remains to be debated, however, if these post-holes date from the pre-Columbian or the colonial period. Feature 003 (maximum depth 7 cm, 12 cm diameter) consisted of a reddish brown (5YR;4/3) sandy clay with a small sand component. The first 12 cm of feature 005 (maximum depth 26 cm, 23 cm diameter) consisted of a reddish brown (5YR;4/3) sandy clay with a small sand component. The second half of this feature consists of dark reddish brown (5YR;3/4) sandy clay with a small sand component. Feature 007 (maximum depth 11 cm, 12 cm diameter) is characterised by a dark reddish brown (5YR;3/3) compact sandy clay with a small sand component. The northwest corner of unit 1 was located at 712388.808; 1808295.469; 91.14 (Guadeloupe - Ste. Anne system) or 16°20′37.4845″; -61°0′56.7234″; 47.30 (WGS84). The northwest corner of unit 2 was located at 712382.466; 1808292.469; 91.14 (Guadeloupe - Ste. Anne system) or 16°20′37.3766″; -61°0′56.9381″; 47.30 (WGS84).

3.19.3 Archaeological materials

The material described includes the 1997 and 1999 surface collections and material from the 1999 test units.

3.19.3.1 Pottery

A total of 495 weathered sherds was collected, mostly body sherds (80.7%), weighing 4093 g (table A3.89). No fragments belonging to the appendages/other category were found. A total of 53 sherds has red slipped surfaces (10.7%) and 11 sherds (2.2 %) are decorated, mainly by incision, although punctation and nubbins occur as well (fig. A3.24); (table A3.90). Most of the bases are flat, although concave high and unidentified fragments have been found as well, and

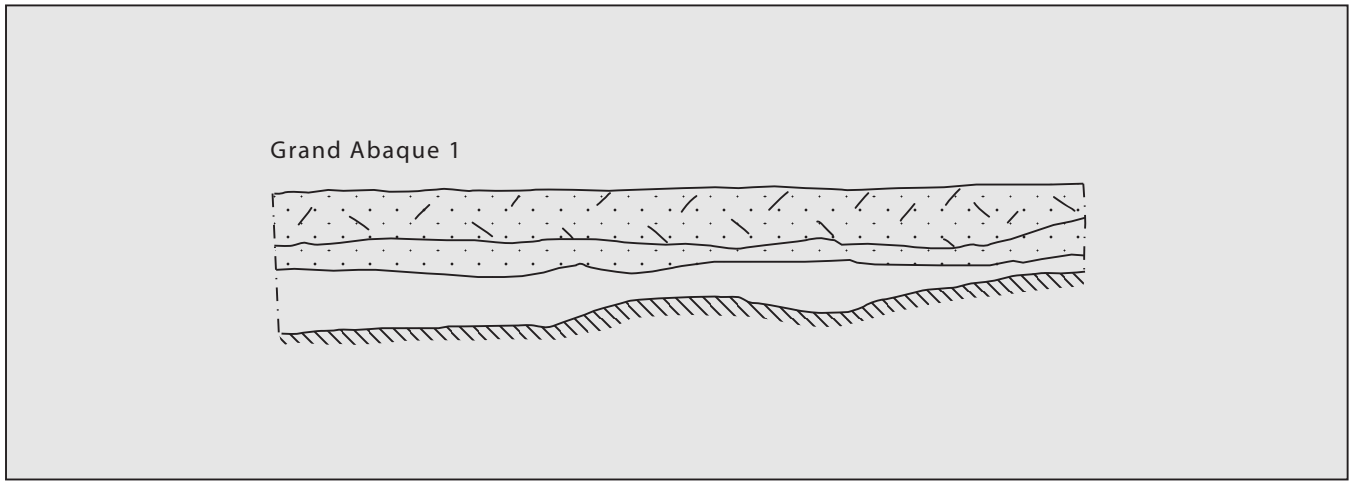


Fig. A3.23. Grand Abaque 1, unit 2 (2 x 2 m), north section.

griddles are straight or legged, although the shape of most fragments could not be identified (tables A3.91-A3.92).

The morphological description of the pottery has been based on the analysis of seven rims larger than 5 cm. These demonstrate that the characteristic vessel shapes include jars and bowls with unrestricted simple contours

	Number	Number %	Weight	Weight %
Rim	61	12.3	603	14.7
Body	399	80.7	2697	65.9
Base	18	3.6	439	10.7
Griddle	17	3.4	354	8.7
Appendage/other	0	0.0	0	0.0
Total	495	100.0	4093	100.0

Table A3.89. Number, percentages and weight (g) of sherds collected at Grand Abaque 1 in 1997 and 1999.

	Number	Number %
Incision	9	81.8
Punctation	1	9.1
Nubbins	1	9.1
Total	11	100.0

Table A3.90. Number and percentages of sherds with particular decoration modes collected at Grand Abaque 1 in 1997 and 1999.

	Number	Number %
Flat	16	88.8
Concave high	1	5.6
Unidentified	1	5.6
Total	18	100.0

Table A3.91. Number and percentages of sherds within base shape categories collected at Grand Abaque 1 in 1997 and 1999.

	Number	Number %
Straight	3	17.6
Legged	1	5.9
Unidentified	13	76.5
Total	17	100.0

Table A3.92. Number and percentages of sherds within griddle shape categories collected at Grand Abaque 1 in 1997 and 1999.

	Number	Number %
Jar with unrestricted simple contour	2	28.6
Bowl with unrestricted simple contour	2	28.6
Bowl with restricted simple contour	2	28.6
Jar with independent restricted inflected contour	1	14.2
Total	7	100.0

Table A3.93. Number and percentages of sherds within vessel shape categories collected at Grand Abaque 1 in 1997 and 1999.

	Number	Number %
Rounded	5	71.6
Flattened	1	14.2
Outward thickened	1	14.2
Total	7	100.0

Table A3.94. Number and percentages of sherds within rim shape categories collected at Grand Abaque 1 in 1997 and 1999.

	Number	Number %
1-5 mm	1	14.3
6-8 mm	1	14.3
9-11 mm	4	57.1
12-15 mm	1	14.3
Total	7	100.0

Table A3.95. Number and percentages of sherds within wall thickness categories collected at Grand Abaque 1 in 1997 and 1999.

	Number	Number %
11-20 cm	2	28.6
21-30 cm	1	14.3
Unidentified	4	57.1
Total	7	100.0

Table A3.96. Number and percentages of sherds within orifice diameter categories collected at Grand Abaque 1 in 1997 and 1999.

(57.2%) and bowls with restricted simple contours (28.6%); (table A3.93). The dominant rim shape is rounded (71.6%); (table A3.94). Wall thicknesses range mainly between 9-11 mm (57.1%) and orifice diameters range between 11-20 cm (28.6%) and 21-30 cm (14.3%), while 57.1% remains unidentified (tables A3.95-A3.96). Surface colours are predominantly light brown-yellow (28.6%) and red (28.6%); (table A3.97). The main firing technique includes incomplete or relatively good oxidation (85.7%); (table A3.98). Surface finishing is predominantly characterised by light burnishing (42.8%) and for 28.6% the surface finishing could not be identified (table A3.99).

3.19.3.2 Lithic artefacts

The 1997 surface collection includes two pebbles and five pebble fragments without use wear of local igneous rock, five indistinct red chert pieces (two possibly local and three non-local) and one passive grinding-stone fragment from possibly local layered tuff or volcanic rock with relatively large inclusions. Several igneous rock artefacts were excavated as well, including seven pebbles, 30 pebble fragments without use wear, one large (possibly natural) pebble fragment, with a localised pitted area on one side, six small unidentified (probably natural) fragments and one possible passive grinding-stone fragment. The excavated sample further

	Number	Number %
Brown-gray/gray-brown	1	14.3
Light brown-yellow	2	28.6
Dark brown/very dark brown	1	14.3
Reddish brown	1	14.3
Red	2	28.6
Total	7	100.0

Table A3.97. Number and percentages of sherds within exterior surface colour categories collected at Grand Abaque 1 in 1997 and 1999.

	Number	Number %
Incomplete or relatively good oxidation	6	85.7
Unidentified	1	14.3
Total	7	100.0

Table A3.98. Number and percentages of sherds within firing colour categories collected at Grand Abaque 1 in 1997 and 1999.

	Number	Number %
Crude	1	14.3
Smoothed	1	14.3
Lightly burnished	3	42.8
Unidentified	2	28.6
Total	7	100.0

Table A3.99. Number and percentages of sherds within exterior surface finishing categories collected at Grand Abaque 1 in 1997 and 1999.

includes one possible polishing stone pebble with polish, one possible hammer-stone pebble fragment and one pebble fragment, with one used broken face which is smoother than the other face. A natural rock fragment, which may not be an artefact, one small pebble flake, one small flake, a flaked pebble and one unidentified rock shatter piece were found as well. It should be remarked that the lithic artefacts found at this site are clearly different from the volcanic material found at the Pointe Colibri site (97110-030). It consists of more Basse-Terre like material, and it is not clear whether this occurs locally on La Désirade (Knippenberg personal communication 2001); (tables A3.100-A3.101).

3.19.3.3 Shell artefacts
One small *Strombus gigas* adze was collected in 1999.

3.19.3.4 Shellfish remains
Hardly any shell was found. Most of it consisted of *Cittarium pica* (table A3.102).

3.19.3.5 Animal remains
The 2/5 inch sample (MNI 1, 1 g) of Grand Abaque 1 consists exclusively of unidentified vertebrate remains (Nokkert in appendix 5).

3.19.4 Chronological assignment

The pottery collected has been assigned to the Late Ceramic A (probably around AD 800-1200). The material is rather similar to the Pointe Colibri (97110-030) material.

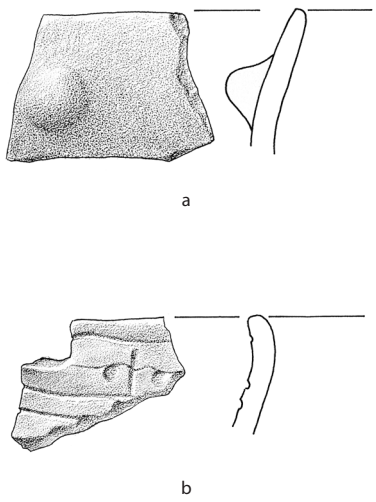


Fig. A3.24. Ceramics from Grand Abaque 1, decorated by a nubbin (a: unit 1, level 1, scale 1:2) and by incision and punctation (b: unit 1, level 2, scale 1:2).

	Total
Igneous rock	59 89.4
Local red chert	2 3.0
Non-local red chert	3 4.6
Tuff/volcanic rock	1 1.5
Unidentified	1 1.5
Total	66 100.0

Table A3.100. Number and percentages of rock types collected at Grand Abaque 1 in 1997 and 1999.

	Total
Pebble	10 15.2
Pebble fragment	38 57.6
Passive grinding-stone	2 3.0
Polishing stone	1 1.5
Hammer-stone	1 1.5
Flake	1 1.5
Shatter piece	1 1.5
Unidentified	12 18.2
Total	66 100.0

Table A3.101. Number and percentages of lithic artefact type collected at Grand Abaque 1 in 1997 and 1999.

	MNI count	MNI weight	Fragment weight	Total weight
Cittarium pica	0	0	204	204
	0.0	0.0	95.4	93.6
Astraea caelata	1	4	8	12
	100.0	100.0	3.7	5.5
Unidentified	0	0	2	2
	0.0	0.0	0.9	0.9
Total	1	4	214	218
	100.0	100.0	100.0	100.0

Table A3.102. MNI counts, MNI weights (g), fragment weight (g), total weight (g) and percentages of all the shell species from the 1999 Grand Abaque 1 collection.

3.20 GRAND ABAQUE 2 (97110-027; SC07)

3.20.1 Site location and preservation

The Grand Abaque 2 site (x: 712,575; y: 1808,275) was discovered on a flat terrain at approximately 25 m south-east of the Grand Abaque 1 site during the 1999 surveys (fig. 5.2). Site dimensions are 30 m from east to west and 35 m from north to south. As the dispersed distribution, the limited number and the heavy fragmentation of the finds suggested that the site was rather shallow, no test units were excavated. It consists of a small and even concentration of heavily fragmented pottery sherds and lithic artefacts, associated with colonial and sub-recent material. Almost no off-site material was found. Dry and thorny vegetation covers the soil, which consists of loose medium structured well-drained sand. Passage across the terrain, which is claimed by Mr. René Berchel (Baie Mahault), is complicated but surface visibility is good. Erosion and cultivation of the terrain in the past appear to have disturbed the find distribution. The terrain is not used nowadays.

3.20.2 Archaeological materials

The material described includes the 1999 surface collection, consisting of a small amount of pottery (290 g) and five lithic artefacts.

3.20.2.1 Pottery

The pottery sample includes three rims and 14 body sherds, together representing 290 g. No fragments belonging to the appendage/other category were found nor bases or griddles. One sherd (5.9%) was red slipped. One rim larger than 5 cm was found. This was part of a jar with an unrestricted simple contour with a rounded rim. Wall thickness of the vessel is between 9-11 mm and orifice diameter is between 11-20 cm. The colour of the outer surface is dark brown/very dark brown, firing technique consists of complete reduction and the finishing of the outer surface is unidentified as a result of weathering.

3.20.2.2 Lithic artefacts

Four flaked igneous rock pebbles without use wear and one unidentified igneous rock artefact were collected.

3.20.3 Chronological assignment

The site yielded Late Ceramic A pottery (unidentified style).

3.21 SITE 8 (97110-028; SC08)

3.21.1 Site location and preservation

Site 8 (x: 712,375; y: 1807,875) was discovered at the foot of La Montagne on a flat terrain during the 1999 surveys (fig. 5.2). Site dimensions are 30 m from east to west and 85 m from north to south. The distribution of archaeological material on the surface is thin but even and it is characterised by heavily fragmented pottery sherds. As the dispersed distribution, the limited number and the heavy fragmentation of the finds suggested that the site was rather shallow, no test units were excavated. A lot of ceramic off-site material was found north-east of the site, leading to Site 28 (97110-044), and south of the site. Rather open vegetation covers 0-20 percent of the soil, which consists of coarse, well-drained loose sand. Surface visibility is very good. Erosion and past

cultivation of the terrain, which is claimed by Mr. Berno Berchel (Baie Mahault), appear to have disturbed the find distribution. The terrain is not used nowadays.

3.21.2 Archaeological materials

The material described includes the 1999 surface collection. This consists of a very small number of pottery sherds and lithic artefacts.

3.21.2.1 Pottery

A total of 57 sherds was collected, mostly body sherds (92.9%), weighing 570 g (table A3.103). The appendages/other category, including one spout, represents 1.8% of the sample. No sherds have red slipped surfaces and one rim (1.8%) is decorated by punctation, which is combined with small, narrow incision. No base or griddle fragments have been found. As it had been decided to use rims larger than 5 cm for further investigation, and no such rims had been found, no morphological and technological description could be provided for the ceramics of this site.

3.21.2.2 Lithic artefacts

Four local igneous rock artefacts were collected. These include one hammer-stone fragment, one axe fragment and two unidentified objects.

3.21.3 Chronological assignment

The site yielded Late Ceramic A pottery (unidentified style).

3.22 PIED DE LA MONTAGNE (97110-029; SC09)

3.22.1 Site location and preservation

The Pied de la Montagne site (x: 712,200; y: 1807,450) was discovered on a flat terrain at the foot of the central plateau of La Désirade during the 1999 surveys (fig. 5.2). Site dimensions are 585 m east to west and 100 m north to south. Grass covers 21-40 percent of the soil, which consists of medium clay in a sandy matrix that is moderately well drained. Surface visibility is good. The surface distribution is characterised by a patchy distribution of complete *Cittarium pica* and *Charonia variegata*, and a very small amount of pottery, associated with colonial and sub-recent material. Two *Strombus gigas* axes were found and Mr. Berno Berchel had collected another. Some shell off-site material was found west and east of the site. The site, of which the terrain is claimed by Mr. Berno Berchel and Mr. Etienne Speno (both from Baie Mahault), has been severely damaged as a result of erosion and long-term cultivation.

3.22.2 Test units and stratigraphy

Three 1 m^2 test units have been excavated. A very small amount of archaeological material was found, mainly consisting of small amounts of shell. In the sections of the test units, ploughing traces were clearly visible (fig. A3.25). The northwest corner of unit 1 was located at 712211.512; 1807458.703; 69.88 (Guadeloupe - Ste. Anne system) or 16°20′10.3248″; -61°1′2.9701″; 26.07 (WGS84). The northwest corner of unit 2 was located at 712168.937; 1807488.447; 73.78 (Guadeloupe - Ste. Anne system) or 16°20′11.3057″; -61°1′4.3945″; 29.98 (WGS84). The northwest corner of unit 3 was located at 712231.775; 1807584.304; 73.43 (Guadeloupe - Ste. Anne system) or 16°20′14.4036″; -61°1′2.2464″; 29.63 (WGS84).

	Number	Number %	Weight	Weight %
Rim	3	5.3	18	3.2
Body	53	92.9	522	91.6
Base	0	0.0	0	0.0
Griddle	0	0.0	0	0.0
Appendage/other	1	1.8	30	5.2
Total	57	100.0	570	100.0

Table A3.103. Number, percentages and weight (g) of sherds collected at the Site 8 surface.

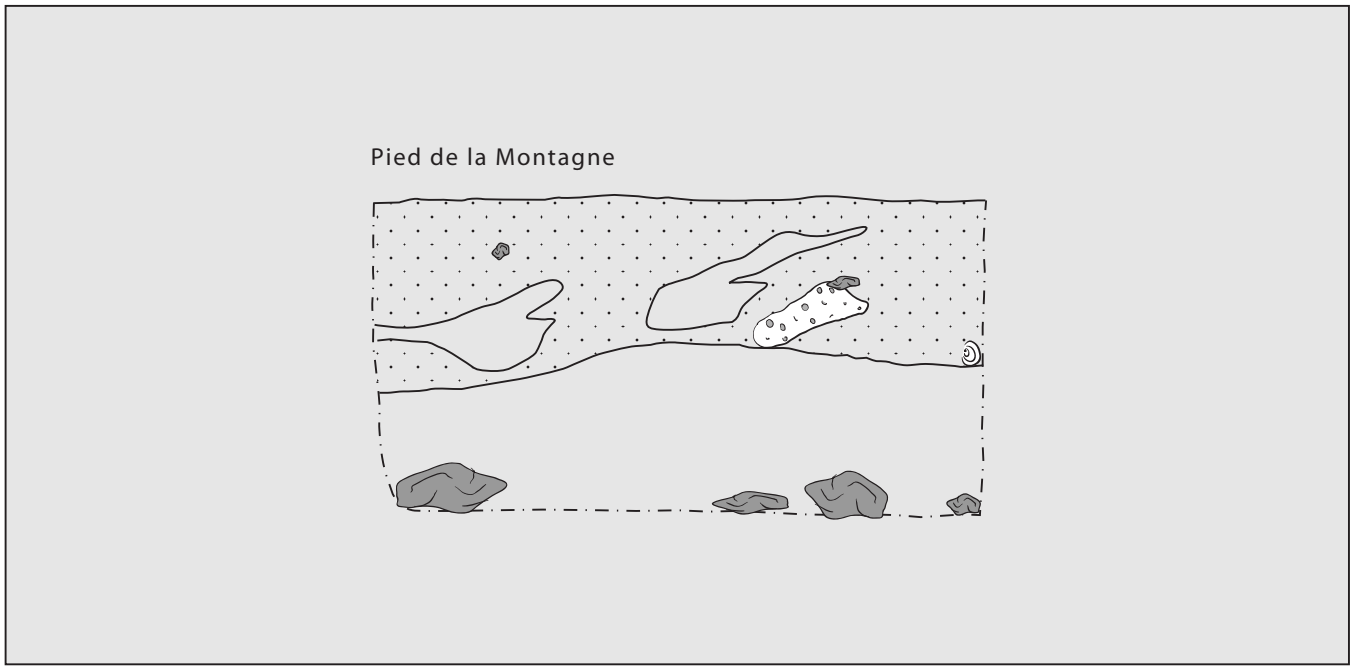


Fig. A3.25. Pied de la Montagne, unit 2 (1 m^2), north section.

3.22.3 Archaeological materials

The material described includes the 1999 surface collection and materials from the 1999 test units.

3.22.3.1 Pottery

A total of 27 sherds was collected, mostly body sherds (92.6%), weighing 340 g (table A3.104). No fragments belonging to the appendages/other category, no sherds with red slipped or decorated surfaces or griddle fragments were found. One flat base was collected. As it had been decided to use rims larger than 5 cm for further investigation, and no such rims had been found, no morphological and technological description could be provided for the ceramics of this site.

3.22.3.2 Lithic artefacts

Four lithic artefacts were collected in 1999. One fragment of a local igneous pebble, with one concave abraded face, which may have been used as a passive grinding/abrading stone, was found on the surface. The test units yielded one flaked fragment of local igneous rock, one local red chert flake and one local igneous rock pebble flake.

3.22.3.3 Shell artefacts

Two *Strombus gigas* adzes were collected. One has been reworked with an angular edge; the other is a small,

beautifully polished tool.

3.22.3.4 Coral artefacts
One axe-shaped *Acropora palmata* active grinding tool fragment and one unidentified object of an unidentified coral species were found.

3.22.3.5 Shellfish remains
The main shellfish remains consisted of *Cittarium pica*, *Charonia variegata* and *Nerita* sp. (table A3.105). Other shell species represented in very low numbers and weights at the site included *Astraea* sp., *Bulimulus guadalupensis*, *Nodilittorina tuberculata*, *Tectarius muricatus*, *Thais* sp., and *Tonna maculosa*. No *Acanthopleura granulata* and *Codakia orbicularis* were found, and hardly any *Strombus gigas*.

3.22.3.6 Animal remains
MNI counts of the 2/5 inch sample (MNI 6, 16 g) of Pied de la Montagne include mainly land hermit crab and some black land crab remains as well (Nokkert in appendix 5).

3.22.4 Chronological assignment
The date of the site is undetermined. No samples for ^{14}C analysis have been collected.

3.23 POINTE COLIBRI (97110-030; SC10)

3.23.1 Site location and preservation
The Pointe Colibri site (x: 703,900; y: 1802,725) was discovered on the coastal plain of Pointe des Colibris

	Number	Number %	Weight	Weight %
Rim	1	3.7	40	11.8
Body	25	92.6	260	76.4
Base	1	3.7	40	11.8
Griddle	0	0.0	0	0.0
Appendage/other	0	0.0	0	0.0
Total	27	100.0	340	100.0

Table A3.104. Number, percentages and weight (g) of sherds collected at the Pied de la Montagne surface in 1999.

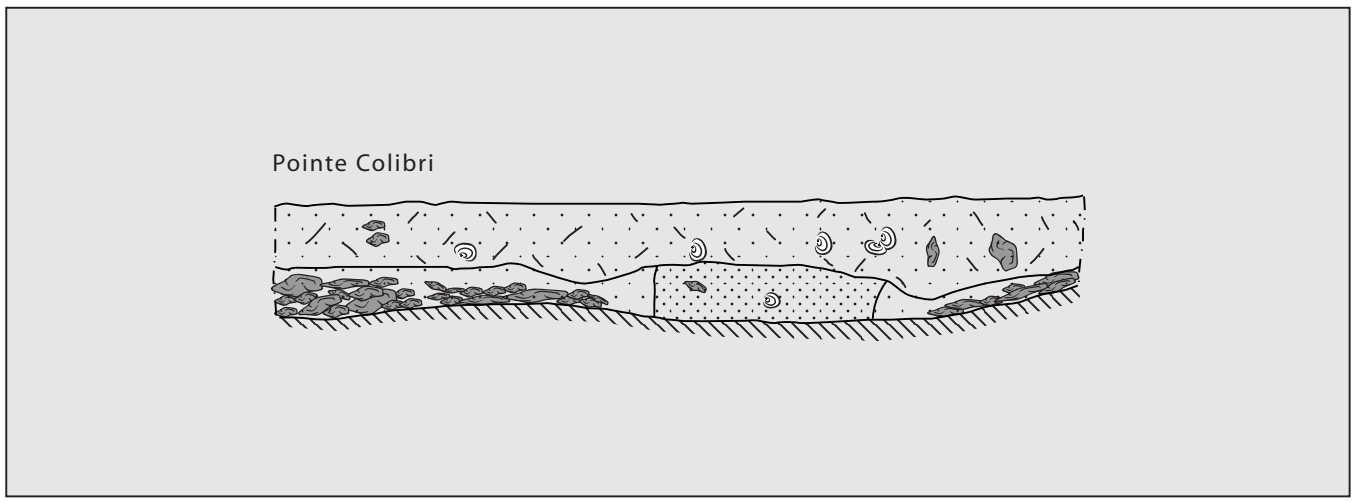
	MNI count	MNI weight	Fragment weight	Total weight
Cittarium pica	86	4202	1287	5489
	39.8	85.7	98.8	88.4
Charonia variegata	3	582	0	582
	1.4	11.9	0.0	9.4
Nerita sp.	18	13	1	14
	8.3	0.2	0.1	0.2
Other	109	109	12	121
	50.5	2.2	0.9	1.9
Unidentified	0	0	2	2
	0.0	0.0	0.2	< 0.1
Total	216	4906	1302	6208
	100.0	100.0	100.0	100.0

Table A3.105. MNI counts, MNI weights (g), fragment weight (g), total weight (g) and percentages of the main shell species from the 1999 Pied de la Montagne collection.

during the 1999 surveys (fig. 5.2). Site dimensions are 110 m from east to west and 125 m from north to south. The archaeological material on the surface consists of an even distribution of ceramics, lithic and coral artefacts and shellfish remains, including *Cittarium pica*, *Strombus gigas* and *Charonia variegata*. Two concentrations of surface material could be identified and test units were excavated there. A lot of ceramic off-site material was found. Thorny brushwood with acacias covers 10-30 percent of the soil, which consists of loose, medium-structured and well-drained sand. Passage across the terrain, which is owned by Mrs. Patrice St. Auret (Les Galets), is easy and surface visibility is very good. The uppermost layer may have disappeared as a result of cultivation in the past. The site is presently used for goat herding.

3.23.2 Test units and stratigraphy

Two 2 x 2 m units were excavated (fig. A3.26). They revealed the presence of a 30 cm thick archaeological layer, containing a very limited quantity of archaeological material. The upper layer of the site may have been removed as a result of cultivation and erosion. The northwest corner of unit 1 was located at 703827.456; 1802711.923; 6.12 (Guadeloupe - Ste. Anne system) or 16°17′38.5295″; -61°5′46.8817″; -37.06 (WGS84). The northwest corner of unit 2 was located at 703808.709; 1802711.202; 6.54 (Guadeloupe - Ste. Anne system) or 16°17′38.5117″; -61°5′47.5133″; -36.64 (WGS84).



0 to 15-25 cm: Fine, dark grayish brown (10YR;4/2) clayey sand containing many plant roots and most archaeological material, including pottery, shell and some lithic and coral artefacts.

15-25 to 23-30 cm: White (10YR;8/1) eroded chunks of chalky bedrock with cracks filled with material from the upper layer, containing less archaeological material.

15-20 to 30 cm: Very fine, brownish yellow (10YR;6/6) powdery clayey sand, containing less archaeological material. This feature, probably pre-Columbian, was not recognised in the excavated level thus it was not sampled separately.

At a depth of 23-30 cm calcareous bedrock was reached.

Cittarium pica

Rock

Fig. A3.26. Pointe Colibri, unit 2 (2 x 2 m), north section.

3.23.3 Archaeological materials

The material described includes the 1999 surface collection and material from the test units.

3.23.3.1 Pottery

A total of 419 sherds was collected, mostly body sherds (65.4%), weighing 6478 g (table A3.106). The appendages/other category, consisting of one lug, represents 0.2% of the sample. A total of 90 sherds has slipped surfaces (21.5%), of which four sherds are beige and the others are red. Ten sherds (2.4%) are decorated by incision on red slip, geometric modelling in the form of an *appliqué* and finger indentation (fig. A3.27; table A3.107). Broad and shallow as well as thin, narrow incision occurs. Almost all bases are

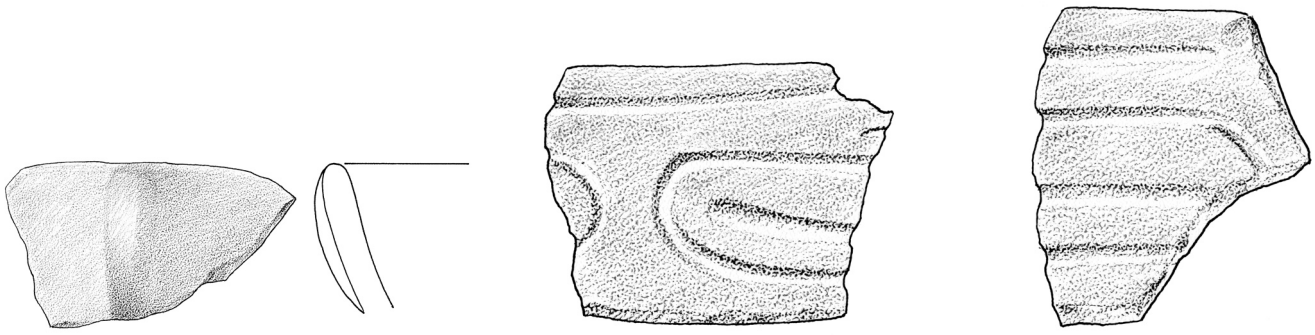


Fig. A3.27. Ceramics from the surface of Pointe Colibri, decorated by an *appliqué* and by incisions (scale 1:2).

	Number	Number %	Weight	Weight %
Rim	75	17.9	1408	21.7
Body	274	65.4	3694	57.0
Base	40	9.6	624	9.6
Griddle	29	6.9	709	11.0
Appendage/other	1	0.2	43	0.7
Total	419	100.0	6478	100.0

Table A3.106. Number, percentages and weight (g) of sherds from Pointe Colibri.

	Number	Number %
Incision	6	60.0
Modelling (geometric)	2	20.0
Finger indentation	2	20.0
Total	10	100.0

Table A3.107. Number and percentages of sherds with particular Pointe Colibri decoration modes.

flat, while straight or unidentified rims dominate the griddles (tables A3.108-A3.109).

The morphological description of the pottery has been based on the analysis of 27 rims larger than 5 cm. These demonstrate that the characteristic vessel shapes include jars, bowls and dishes with unrestricted simple contours (70.4%), bowls with restricted simple contours (14.8%) and bowls with unrestricted inflected contours (11.1%); (table A3.110). Most of the rim shapes are rounded (63.0%), flattened (14.8%) and inward thickened (11.1%); (table A3.111). Most of the wall thicknesses are between 6-8 mm (48.2%) and 9-11 mm (48.2%) and orifice diameters range between 11-20 cm (14.8%), 21-30 cm (33.3%), 31-40 cm (14.8%) and 41-50 cm (14.8%), while 22.3% remains unidentified (tables A3.112-A3.113). Surface colours are predominantly reddish brown (44.5%) and red (33.3%); (table A3.114). Most of the firing techniques include incomplete or relatively good oxidation (74.0%), and complete reduction (22.3%); (table A3.115). Surface finishing is predominantly characterised by burnishing (48.1%). For 44.5% the surface finishing could not be identified, as the sherds are so heavily weathered (table A3.116).

	Number	Number %
Flat	34	85.0
Concave	1	2.5
Unidentified	5	12.5
Total	40	100.0

Table A3.108. Number and percentages of sherds within base shape categories from Pointe Colibri.

	Number	Number %
Straight	11	37.9
Triangular	1	3.5
Legged	3	10.3
Unidentified	14	48.3
Total	29	100.0

Table A3.109. Number and percentages of sherds within griddle shape categories from Pointe Colibri.

	Number	Number %
Jar with unrestricted simple contour	9	33.3
Bowl with unrestricted simple contour	7	26.0
Dish with unrestricted simple contour	3	11.1
Bowl with restricted simple contour	4	14.8
Bowl with unrestricted inflected contour	3	11.1
Jar with independent restricted inflected contour	1	3.7
Total	27	100.0

Table A3.110. Number and percentages of sherds within vessel shape categories from Pointe Colibri.

	Number	Number %
Rounded	17	63.0
Flattened	4	14.8
Inward thickened	3	11.1
Outward thickened	2	7.4
Double thickened	1	3.7
Total	27	100.0

Table A3.111. Number and percentages of sherds within rim shape categories from Pointe Colibri.

	Number	Number %
1-5 mm	1	3.6
6-8 mm	13	48.2
9-11 mm	13	48.2
Total	27	100.0

Table A3.112. Number and percentages of sherds within Pointe Colibri wall thickness categories.

	Number	Number %
11-20 cm	4	14.8
21-30 cm	9	33.3
31-40 cm	4	14.8
41-50 cm	4	14.8
Unidentified	6	22.3
Total	27	100.0

Table A3.113. Number and percentages of sherds within Pointe Colibri orifice diameter categories.

	Number	Number %
Dark gray-black	2	7.4
Dark grayish-brown	1	3.7
Light brown-yellow	1	3.7
Dark brown/very dark brown	2	7.4
Reddish brown	12	44.5
Red	9	33.3
Total	27	100.0

Table A3.114. Number and percentages sherds within exterior surface colour categories from Pointe Colibri.

	Number	Number %
Complete reduction	6	22.3
Incomplete oxidation or reduction	1	3.7
Incomplete or relatively good oxidation	20	74.0
Total	27	100.0

Table A3.115. Number and percentages of sherds within Pointe Colibri firing colour categories.

	Number	Number %
Smoothed	1	3.7
Lightly burnished	3	11.1
Highly burnished	10	37.0
Polished	1	3.7
Unidentified	12	44.5
Total	27	100.0

Table A3.116. Number and percentages of sherds within Pointe Colibri exterior surface finishing categories.

3.23.3.2 Lithic artefacts

Several local volcanic rock artefacts were collected (tables A3.117-A3.118). These include 15 pebbles without traces, four pebble fragments (two with pits and abrasion), a possible grinding/abrasive stone pebble fragment, one pitted hammer-stone pebble fragment, one burnt hammer-stone pebble, six polishing stone pebbles, two flaked pebbles with negatives and one complete pitted pebble hammer-stone. One non-local (similar to Martinique jasper) red chert flake core, one Long Island fire-cracked flint flake, an unidentified pebble without traces, one probably calcite pebble and a shatter piece of local red chert were found as well. In addition, eight non-modified, probably natural, conglomerate pebbles and one fragment and 12 natural limestone pieces were collected. The latter are not listed in the tables below.

3.23.3.3 Coral artefacts

A total of 12 coral artefacts was collected (table A3.119). The artefacts include ten, mostly heavily used, *Acropora cervicornis* rasp fragments, and two lightly used *Acropora palmata* passive grinding tool fragments.

3.23.3.4 Shellfish remains

The main shellfish remains consist of *Cittarium pica* and *Strombus gigas* (table A3.120). Other shell species represented in very low numbers and weights at the site included *Acanthopleura granulata, Acmaea leucopleura*, *Astraea* sp., *Bulimulus guadelupensis*, *Chiton tuberculatus*, *Codakia orbicularis*, *Conus* sp., *Cypraea zebra*, *Cypraecassis testiculus*, *Littorina angustior*, *Murex (phyll.) pomum*, *Nerita* sp., *Nodilittorina tuberculata*, *Tectarius muricatus* and *Tellina* sp.

3.23.4 Chronological assignment

The site yielded Late Ceramic A pottery (probably dated around AD 800-1200) that is rather similar to the material of the Grand Abaque site (97110-026). The ceramic lug shows Suazan Troumassoid style influence and the *appliqué* has rounded forms.

3.24 RAVINE CÉSAR (97110-031; SC14)

3.24.1 Site location and preservation

The Ravine César site (x: 709,075; y: 1806,025) was discovered on a terrain bordered by the slopes of the Rivière ravine and the César ravine during the 1999 surveys (fig.

	Total
Long Island flint	1 2.8
Local volcanic rock	31 86.0
Calcite	1 2.8
Local red chert	1 2.8
Non-local red chert	1 2.8
Unidentified	1 2.8
Total	36 100.0

Table A3.117. Number and percentages of Pointe Colibri rock types.

	Total
Pebble	19 52.7
Pebble fragment	4 11.1
Active polishing stone	6 16.7
Flake/flake core	2 5.6
Hammer-stone	3 8.3
Grinding-stone	1 2.8
Shatter piece	1 2.8
Total	36 100.0

Table A3.118. Number and percentages of Pointe Colibri lithic artefact types.

	Rasp fragment	Grinding tool fragment	Total
Acropora cervicornis	10 83.3		10 83.3
Acropora palmata		2 16.7	2 16.7
Total	10 83.3	2 16.7	12 100.0

Table A3.119. Number and percentages of Pointe Colibri coral species and artefact types.

	MNI count	MNI weight	Fragment weight	Total weight
Cittarium pica	57 73.1	2754 91.9	3199 87.7	5953 89.6
Strombus gigas	1 1.3	76 2.5	388 10.6	464 7.0
Other	20 25.6	166 5.6	58 1.6	224 3.4
Unidentified	0 0.0	0 0.0	3 < 0.1	3 < 0.1
Total	78 100.0	2996 100.0	3648 100.0	6644 100.0

Table A3.120. MNI counts, MNI weights (g), fragment weight (g), total weight (g) and percentages of the main shell species collected at Pointe Colibri.

5.2). It was found by accident while traversing the central plateau, looking for a way to get to the Voûte à Pin site (97110-018). Site dimensions are 20 m from east to west and 25 m from north to south. The archaeological material on the surface consists of a small and patchy distribution of moderately fragmented pottery sherds and a limited number of *Cittarium pica* fragments. As the dispersed distribution, the limited number and the heavy fragmentation of the finds suggested that the site was rather shallow, no test units were excavated. A surface collection was made instead. Almost no off-site material was found. Dense shrub and cultivated plants covers 60-80 percent of the soil, which consists of coarse, well drained, clayey sand with many stones. Surface visibility is not very good as dense vegetation hinders observation. Archaeological material was found at places with good visibility, such as the cultivated area and the sandy path. The site is seriously damaged as a result of erosion and cultivation of the terrain, which is claimed by Mr. Etienne Speno (Baie Mahault). It appears to have been ploughed often, which probably resulted in erosion and the displacement of artefacts.

3.24.2 Archaeological materials

The material described consists of the 1999 surface collection. This comprises one fragment of a local volcanic rock pebble with a pitted area on one face, suggesting that it had been used as hammering instrument or as anvil, and a very small amount of pottery. Five rim sherds, four body sherds and one flat base fragment were collected, weighing 196 g. No fragments belonging to the appendages/other category and no griddles were found. Four sherds have red slipped surfaces. The morphological description of the pottery has been based on the analysis of four rims larger than 5 cm. Three of these are part of one and the same vessel but they could not be fitted. The rims belong to bowls and dishes with unrestricted simple contours with rounded and inward thickened rims. Wall thicknesses range between 6-8 mm and 12-15 mm and orifice diameters range between 11-20 cm and 31-40 cm. Surface colours are reddish brown and red, firing technique includes incomplete or relatively good oxidation and surface finishing is crude or polished.

3.24.3 Chronological assignment

The site yielded Late Ceramic A pottery (unidentified style).

3.25 MORNE À MARTHE (97110-032; SC18)

3.25.1 Site location and preservation

The Morne à Marthe site (x: 704,300; y: 1803,850) was discovered at the foot of Morne à Marthe hill, north of the Latanier trail, during the 1999 surveys (fig. 5.2). Site dimensions are 100 m from east to west and 250 m from north to south. The archaeological material on the surface consists of an even distribution of small pottery sherds, and shell fragments including *Cittarium pica*, *Strombus gigas* and *Chiton* sp., associated with colonial and sub-recent material. As the dispersed distribution, the limited number and the heavy fragmentation of the finds suggested that the site was rather shallow, no test units were excavated. A very limited amount of ceramic off-site material was found, most of it west of the site. Leaves of the local shrubby vegetation cover 21-40 percent of the soil, which consists of loose, coarse, poorly drained clayey sand. Surface visibility is rather good. The site terrain, which is not in use nowadays, appears to have been perturbed to an important degree as a result of erosion and cultivation in the past. Rainwater runs down the site towards the sandy road and appears to cause serious erosion and artefact displacement.

	Number	Number %	Weight	Weight %
Rim	9	11.3	192	20.2
Body	69	86.3	690	72.6
Base	1	1.2	16	1.7
Griddle	1	1.2	52	5.5
Appendage/other	0	0.0	0	0.0
Total	80	100.0	950	100.0

Table A3.121. Number, percentages and weight (g) of sherds from Morne à Marthe.

3.25.2 Archaeological materials

The material described consists of the 1999 surface collection. This comprises one unidentified artefact of local volcanic rock and a small amount of pottery. A total of 80 weathered sherds was collected, mostly body sherds (86.3%), weighing 950 g (table A3.121). No fragments belonging to the appendages/other category were found. One flat base and one unidentified griddle fragment were collected. No red slipped or decorated sherds were found.

The morphological description of the pottery has been based on the analysis of three rims larger than 5 cm. These are from two bowls with unrestricted simple contours and one bowl with an unrestricted inflected contour. Two of the rims are rounded and the other is inward thickened. Wall thicknesses range between 6-8 mm for two sherds and between 9-11 mm for the other. The orifice diameters are between 21-30 cm but for two rims the orifice diameters remain unidentified. The colour of the outer surfaces of the rims is reddish brown, the firing technique consists of incomplete or relatively good oxidation and the finishing of the outer surfaces is unidentified.

3.25.3 Chronological assignment

The site yielded Late Ceramic A pottery (unidentified style).

3.26 AÉROPORT (97110-033; SC19A, SC19B)

3.26.1 Site location and preservation

The Aéroport site (x: 705,125; y: 1803,050) was discovered at the La Désirade airport, on the southern coastal plain, during the 1999 surveys (fig. 5.2). It extends out from both sides of the airstrip. Site dimensions are 450 m east to west and 75 m north to south. The archaeological material on the surface is characterised by an even distribution of moderately fragmented pottery, shellfish remains, including *Cittarium pica*, *Strombus gigas*, *Codakia orbicularis*, *Purpura patula*, *Chiton* sp., *Nerita* sp. and lithic and coral artefacts. Two large concentrations of archaeological material on the surface can be identified (SC19a and SC19b), belonging to one single site but as a result of regular bulldozer activities aimed at the levelling of the terrain, the central part of the site appears to have been destroyed. The densest concentration is found in the south-western part of the site. The northern part of the site, which is situated north of the airstrip, has the lowest number of artefacts on the surface. A lot of ceramic off-site material was found north and east of the site, in the area leading towards the Les Sables site (97110-010) in particular. Coastal vegetation, which consists of ground lianas and sea grape, covers 21-40 percent of the soil, which consists of loose, coarse, well-drained beach sand. Surface visibility is very good. Sand from the site has been used for the concrete that was used to build the airstrip, which is evidenced by several sherds and shells that are included. The site appears to be seriously destroyed as a result of bulldozing activities aimed at levelling parts of the site and removing vegetation, in the central part of the site in particular. This area is in between the two concentrations that were distinguished on the surface. Bulldozing works even hindered relocation of the second test unit that had been excavated in 1999. The upper layers of the central part of the site were simply too disturbed.

3.26.2 Test units and stratigraphy

Three test units were excavated (fig. A3.28). Unit 1 (2 x 2 m) was situated in SC19a in the western part of the site, unit 3 (1 x 2 m) in SC19b in the eastern part of the site and unit 2 (1 x 2 m) was excavated in between these two surface concentrations. Excavation of unit 2 was stopped at a depth of 50 cm as sterile layers were being excavated. Auger tests made in the corners and the centre of the unit demonstrated the presence of ground water at a depth of 145 cm. At 170 cm depth, bedrock had not been reached but further testing was impossible due to the water level. Unit 3 was started as a 1 x 2 m unit. From 70 cm depth onwards a 1 m^2 unit was excavated in the eastern part of the unit as sterile layers were being excavated. At a depth of 105 cm auger tests were made in the corners and the centre of the unit. These revealed the presence of groundwater at a depth of 190 cm. The northwest corner of unit 1 was located at 704917.022; 1802969.738; 1.78 (Guadeloupe - Ste. Anne system) or 16°17′46.5840″; -61°5′10.1052″; -41.47 (WGS84). Unit 2 could not be relocated for topographic measuring, as the area had been destroyed as a result of bulldozing activities. The northwest corner of unit 3 was located at 705310.903; 1803109.569; 1.35 (Guadeloupe - Ste. Anne system) or 16°17′51.0120″; -61°4′56.7955″; -41.92 (WGS84).

3.26.3 Archaeological materials

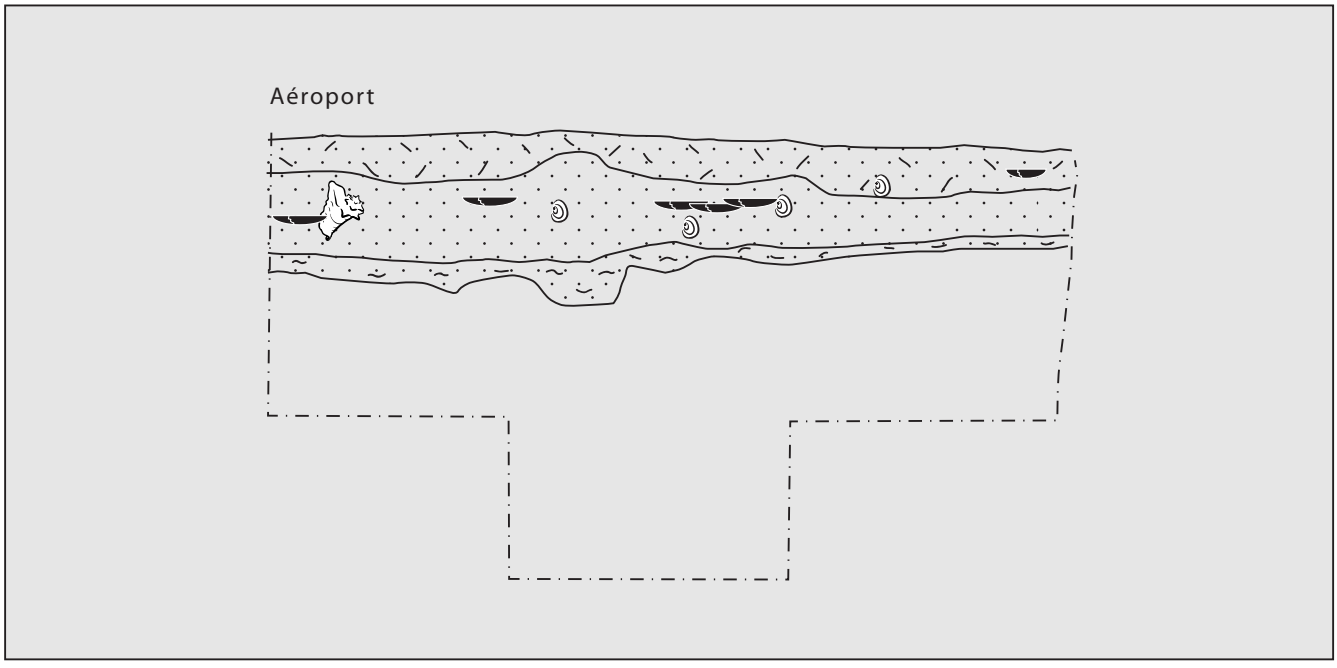
The material described consists of the 1999 surface collections and the material from the test units.

3.26.3.1 Pottery

A total of 998 weathered sherds was collected, mostly body sherds (72.3%), weighing 27,395 g (table A3.122). The appendages/other category represents 0.8% of the sample. This includes a handle, a lug, a spindle whorl, griddle legs and unidentified appendages (fig. A3.29; table A3.123). A total of 182 sherds has slipped surfaces (18.2%), of which three rims larger than 5 cm had beige slipped surfaces, and

seven sherds (0.7%) are decorated by incision and nubbins (table A3.124; fig. A3.30). Incision is usually associated with red slip, and small and deep as well as broad and shallow incision occurs. A rim with 5-double incision emphasised the coil manufacturing of the pottery. Most of the bases are flat and straight and legged griddles were found as well. The shape of most griddle fragments could not be identified, however (tables A3.125-A3.126).

The morphological description of the pottery has been based on the analysis of 101 rims larger than 5 cm. These demonstrate that the characteristic vessel shapes include jars, bowls and dishes with unrestricted simple contours (79.2%); (table A3.127; fig. A3.31). Dominant rim shapes are rounded (70.3%) and inward thickened (15.8%); (table A3.128).



0 to 5-16 cm: Fine, grayish brown (10YR;5/2) clayey sand with root disturbance and a lot of archaeological material, consisting of pottery, shell, some faunal remains and lithic and coral artefacts.

5-16 to 27-32 cm: Fine, gray (7.5YR;5/1) clayey sand with root disturbance and a lot of archaeological material, consisting of pottery, shell, some faunal remains and lithic and coral artefacts.

27-32 to 32-44 cm: Fine, pale brown (10YR;6/3) sand, with a small amount of shell.

32-44 to 112 cm: Loose, fine, very pale brown (10YR;8/2) sterile beach sand, with two shell and two lithic artefacts and a very small amount of shell. At a depth of 60-70 cm it was decided to continue digging a 1 x 1 m unit, situated in the centre of the 2 x 2 m unit, since only sterile material was excavated. At 112 cm depth, excavation was stopped since no archaeological material had been found. Auger tests were made in the corners and the centre of the unit up to a depth of 240 cm. At this depth, bedrock had not yet been reached but the groundwater level was reached instead. One single sterile layer could be identified.

Pottery

Strombus gigas

Cittarium pica

Fig. A3.28. Aéroport, unit 1 (2 x 2 m), north section.

Wall thicknesses range between 6-8 mm (32.7%), 9-11 mm (51.5%) and 12-15 mm (11.8%) and orifice diameters range between 11-20 cm (20.8%), 21-30 cm (27.7%) and 31-40 cm (12.9%), while 29.7% remains unidentified (tables A3.129-A3.130). Surface colours are predominantly reddish brown (43.5%), dark brown/very dark brown (21.8%) and red (11.8%); (table A3.131). Most firing techniques include complete reduction (28.7%) and incomplete or relatively good oxidation (63.4%), the latter having 11 irregularly fired sherds (table A3.132). Surface finishing is predominantly characterised by burnishing (73.2%). For 13.9% the surface finishing could not be identified (table A3.133). One of the

	Number	Number %	Weight	Weight %
Rim	180	18.0	6378	23.3
Body	721	72.3	16,833	61.5
Base	41	4.1	1925	7.0
Griddle	48	4.8	1755	6.4
Appendage/other	8	0.8	504	1.8
Total	998	100.0	27,395	100.0

Table A3.122. Number, percentages and weight (g) of sherds from Aéroport.

	Number	Number %
Handle	1	12.5
Lug	1	12.5
Spindle whorls	1	12.5
Griddle leg	2	25.0
Appendage (unident.)	3	37.5
Total	8	100.0

Table A3.123. Number and percentages of sherds within appendages/other categories from Aéroport.

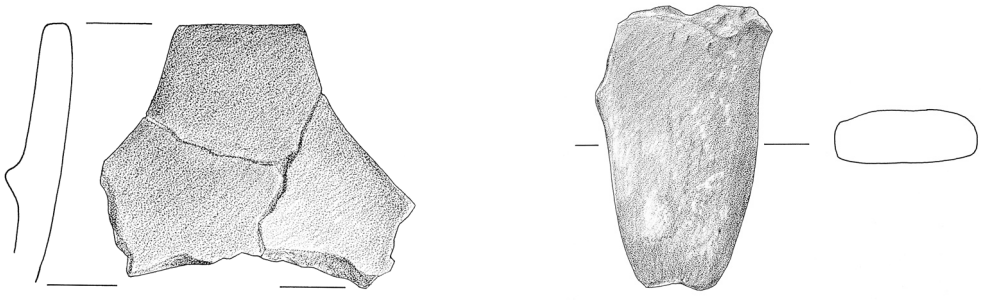


Fig. A3.29. Lug (surface, scale 1:2) and griddle leg (unit 1, level 2, scale 1:3) from Aéroport.

rims is part of a mini vessel, that is a simple open bowl.

3.26.3.2 Lithic artefacts

A total of 85 lithic artefacts was found in the 1999 test units and many are of volcanic rock (table A3.134-A3.135). These include six core tools (one local), four non-modified flake artefacts (two local), two flake fragments (one local), four core artefact fragments (one probable hammer-stone), five pebbles and two pebble fragments (no use wear), one *metate*-like fragment and one complete, flaked active grinding tool. Hypabyssal rock pieces include five flakes without retouch, two core artefacts of local water-worn pebbles, ten core artefact fragments (five local), ten shatter pieces and one modified flint flake fragment. Local plutonic rock pieces include one core artefact, one complete hammer-stone, 11 core artefacts, nine core artefact fragments (among which four grinding-stones), one unidentified core artefact fragment and one modified flake fragment. One complete non-modified limestone/chalk grinding tool was found, together with two sedimentary rock artefacts (one active abrading tool and one La Désirade polishing stone) and the jasper pieces consist of one La Désirade core artefact and

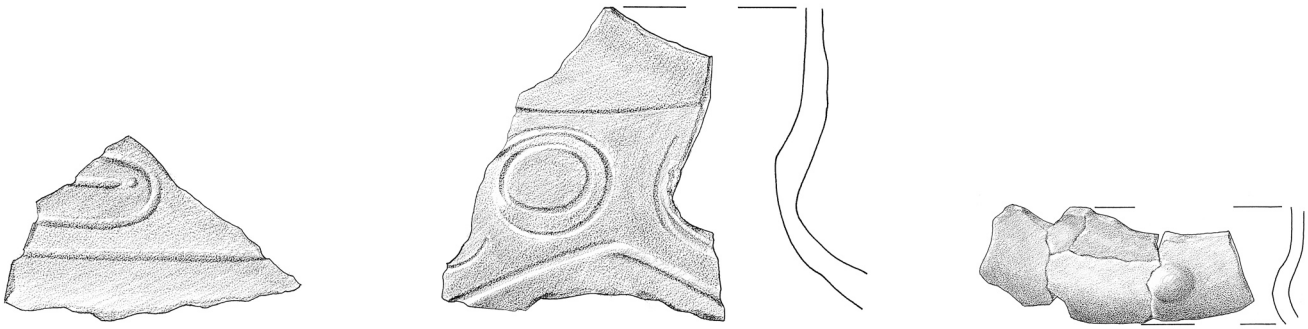


Fig. A3.30. Ceramics from Aéroport, decorated by incision (both from unit 1, level 2, scale 1:2) and by a nubbin (unit 1, level 1, scale 1:3).

	Number	Number %
Incision	6	85.7
Nubbin	1	14.3
Total	7	100.0

Table A3.124. Number and percentages of sherds with particular Aéroport decoration modes.

	Number	Number %
Flat	37	90.2
Concave high	1	2.5
Unidentified	3	7.3
Total	41	100.0

Table A3.125. Number and percentages of sherds within base shape categories from Aéroport.

	Number	Number %
Straight	8	16.6
Overhanging	2	4.2
Unthickened	2	4.2
Legged	7	14.6
Unidentified	29	60.4
Total	48	100.0

Table A3.126. Number and percentages of sherds within griddle shape categories from Aéroport.

	Number	Number %
Jar with unrestricted simple contour	32	31.7
Bowl with unrestricted simple contour	36	35.6
Dish with unrestricted simple contour	12	11.9
Bowl with restricted simple contour	6	5.9
Bowl with unrestricted composite contour	2	2.0
Bowl with unrestricted inflected contour	6	5.9
Jar with independent restricted inflected contour	2	2.0
Bowl with independent restricted complex contour	2	2.0
Unidentified	3	3.0
Total	101	100.0

Table A3.127. Number and percentages of sherds within vessel shape categories from Aéroport.

	Number	Number %
Rounded	71	70.3
Flattened	10	9.9
Inward thickened	16	15.8
Outward thickened	2	2.0
Double thickened	1	1.0
Unidentified	1	1.0
Total	101	100.0

Table A3.128. Number and percentages of sherds within rim shape categories from Aéroport.

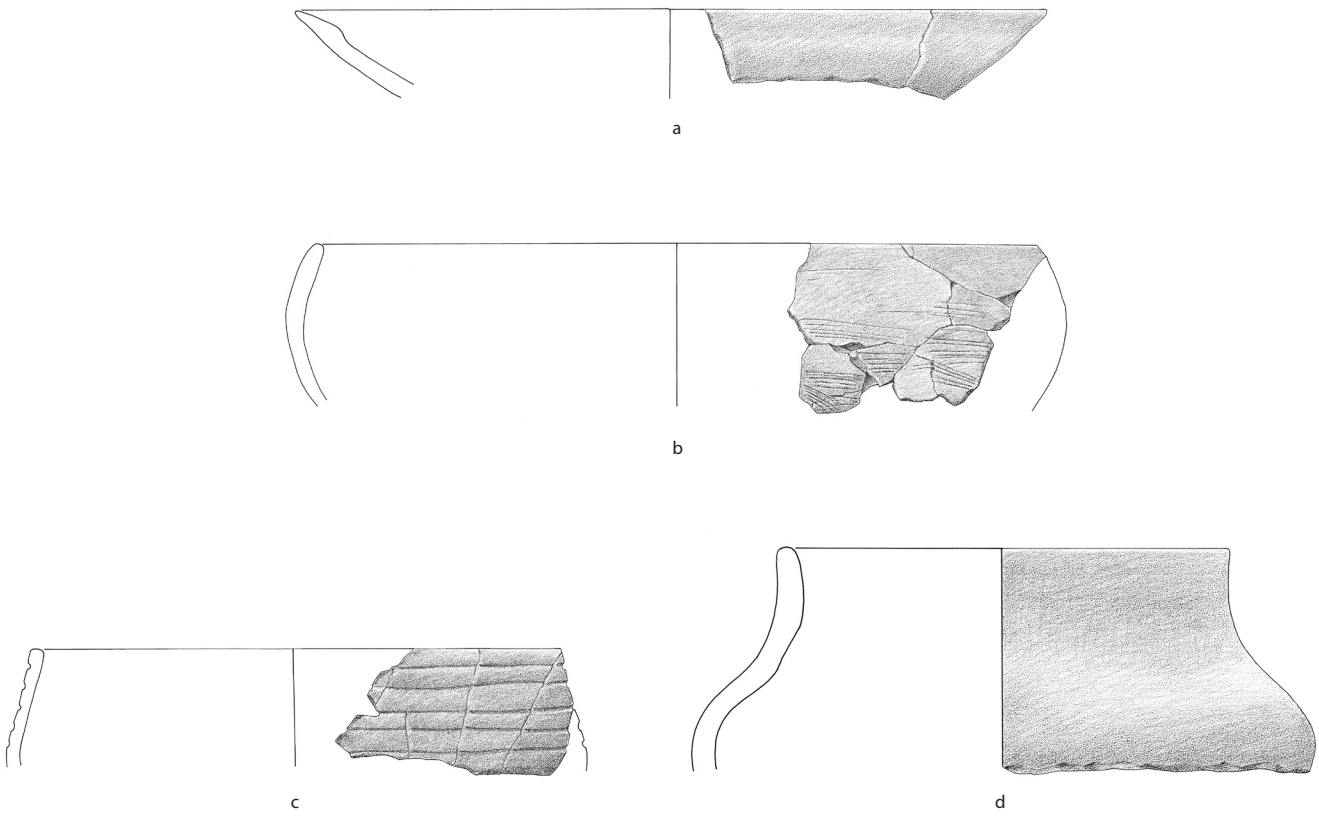


Fig. A3.31. Aéroport vessel shapes (a: unit 1, level 1, scale 1:3; b: unit 1, level 1, scale 1:4; c: unit 1, level 1, scale 1:4; d: unit 1, level 2, scale 1:3).

	Number	Number %
1-5 mm	4	4.0
6-8 mm	33	32.7
9-11 mm	52	51.5
12-15 mm	12	11.8
Total	101	100.0

Table A3.129. Number and percentages of sherds within Aéroport wall thickness categories.

	Number	Number %
11-20 cm	21	20.8
21-30 cm	28	27.7
31-40 cm	13	12.9
41-50 cm	6	5.9
51-60 cm	3	3.0
Unidentified	30	29.7
Total	101	100.0

Table A3.130. Number and percentages of sherds within Aéroport orifice diameter categories.

	Number	Number %
Gray	2	2.0
Dark gray-black	7	6.9
Dark grayish-brown	2	2.0
Light brown-yellow	4	4.0
Light brown/brown	4	4.0
Dark brown/very dark brown	22	21.8
Reddish-gray/dark reddish-gray	3	3.0
Reddish brown	44	43.5
Red	12	11.8
Unidentified	1	1.0
Total	101	100.0

Table A3.131. Number and percentages of sherds within exterior surface colour categories from Aéroport.

	Number	Number %
Complete reduction	29	28.7
Incomplete oxidation or reduction	7	6.9
Incomplete or relatively good oxidation	64	63.4
Unidentified	1	1.0
Total	101	100.0

Table A3.132. Number and percentages of sherds within Aéroport firing colour categories.

	Number	Number %
Crude	1	1.0
Smoothed	2	2.0
Lightly burnished	14	13.9
Highly burnished	60	59.3
Polished	10	9.9
Unidentified	14	13.9
Total	101	100.0

Table A3.133. Number and percentages of sherds within Aéroport exterior surface finishing categories.

one possible Martinique or St. Martin shatter piece. Three shatter pieces of unidentified rock were found as well.

3.26.3.3 Shell artefacts

Two shell artefacts were found, including an unidentified object with polished edges from *Strombus gigas* and a possible *Oliva* sp. bead with worked and polished edges.

3.26.3.4 Coral artefacts

A total of 188 coral artefacts was discovered in the 1999 units (table A3.136). The *Acropora cervicornis* artefacts include 102 rasp fragments (11 with a ground tip, five without use wear, 43 lightly used and 43 heavily used), two heavily used grinding tool fragments and one unidentified object (no use-wear). The *Acropora palmata* artefacts include 12 active grinding tool fragments (11 heavily used) and 68 passive grinding tool fragments (one with a ground tip, one without use wear and most of the remaining fragments were heavily used). One rasp fragment, one heavily used passive grinding tool fragment and one unidentified object of an unidentified coral species were found as well.

3.26.3.5 Shellfish remains

The main shellfish remains consisted of *Cittarium pica*, *Strombus gigas*, and *Nerita* sp. (table A3.137). Other shell species, represented in very low numbers and weights, included *Acanthopleura granulata*, *Arca zebra*, *Astraea* sp., *Bulimulus guadalupensis*, *Chama* sp., *Charonia variegata*, *Chiton tuberculatus*, *Codakia orbicularis*, *Columbella mercatoria*, *Conus* sp., *Cymatium femorale*, *Cypraea zebra*, *Diadora dysoni, Fissurella* sp., *Linga pensylvanica*, *Lucina pectinata*, *Nodilittorina tuberculata*, *Pisiano pusio*, *Polia aritula*, *Purpura patula*, *Tectarius muricatus*, *Thais* sp., *Tonna maculosa* and *Turbo casteana*.

	Total
La Désirade volcanic rock	4 4.7
Volcanic rock	21 24.7
La Désirade hypabyssal rock	7 8.2
Hypabyssal rock	21 24.7
La Désirade plutonic rock	24 28.2
Limestone/chalk	1 1.2
La Désirade sedimentary rock	1 1.2
Sedimentary rock	1 1.2
La Désirade jasper	1 1.2
St. Martin/Martinique jasper	1 1.2
Unidentified	3 3.5
Total	85 100.0

Table A3.134. Number and percentages of Aéroport rock types.

3.26.3.6 Animal remains

MNI counts show that the Aéroport 2/5 inch faunal sample (total MNI 47, total weight 118 g) consists of crab (74.5%), fish (16.9%), mammal (6.4%) and reptile (2.1%). It has a terrestrial component (78.9%) that consists of agouti, unidentified mammal, land hermit crab, black land crab and land crab. A particularly large amount of black land crab has been found. Without land hermit crab included the terrestrial component makes up 44.9% of the total sample. The majority of invertebrate remains may be explained by small sample size or by unrecognized recent intrusive fragments. Several reef herbivores/omnivores (10.6%) have been found, including parrotfish and surgeonfish, while reef carnivores (4.2%) consisting of grouper and Spanish hogfish, make a smaller contribution. Inshore (4.2%) species are represented by sea turtle and porcupinefish (Nokkert in appendix 5).

3.26.4 Chronological assignment

Three unmodified *Cittarium pica* shell samples were obtained from the 1999 test units. They were sent to the Laboratory for Isotopic Research in Groningen (The Netherlands). The BP dates have been calibrated using CALIB 4.2 by M. Stuiver, P.J. Reimer and R. Reimer using the calibration curve for marine shell.[6] Calibrated radiocarbon dates with a 68.3% confidence level suggest that the site was in any case occupied between cal. AD 1074-1136 or 1147-1151, between cal. AD 1049-1112, and between cal. AD 1001-1036 and at a 95.4% confidence level calibrated dates range between cal. AD 1057-1167, cal. AD 1036-1155 and cal. AD 976-1053 (table A3.138).

The pottery collected suggests Late Ceramic A site occupation around AD 1100-1200.

	Total
Core artefact (fragment)	40 47.0
Hammer-stone	2 2.4
(Modified) flake fragment	13 15.2
Grinding-stone (passive or active)	7 8.3
Pebble	5 5.9
Pebble fragment	2 2.4
Passive grinding-stone (fragment)	1 1.2
Shatter piece	14 16.4
Polishing stone	1 1.2
Total	85 100.0

Table A3.135. Number and percentages of Aéroport lithic artefact types.

	Rasp fragment	Active grinding tool fragment	Passive grinding tool fragment	Unidentified	Total
Acropora cervicornis	102 54.3		2 1.0	1 0.5	105 55.8
Acropora palmata		12 6.5	68 36.2		80 42.7
Unidentified	1 0.5		1 0.5	1 0.5	3 1.5
Total	103 54.8	12 6.5	71 37.7	2 1.0	188 100.0

Table A3.136. Number and percentages of Aéroport coral species and artefact types.

3.27 SITE 17 (97110-034; SC20)

3.27.1 Site location and preservation

Site 17 (x: 703,900; y: 1803,050) was discovered on a non-cultivated terrain south of the Route Départementale 207, very close to the western coast of La Désirade, during the 1999 surveys (fig. 5.2). Site dimensions are 85 m east to west and 20 m north to south. The archaeological material on the surface is thinly but evenly distributed all over the terrain and consists exclusively of very small pottery sherds. As the dispersed distribution, the limited number and the heavy fragmentation of the finds suggested that the site was rather shallow, no test units were excavated. No off-site material was found. Vegetation lightly covers the soil, which consists of compact clayey sand. Surface visibility is good. The site appears to have been largely destroyed as a result of the construction of the road.

3.27.2 Archaeological materials

A very small amount of non-diagnostic pottery was collected. This included 17 sherds, weighing 198 g.

3.27.3 Chronological assignment

The site yielded Late Ceramic A pottery (unidentified style).

3.28 LA RAMÉE (97110-035; SC21)

3.28.1 Site location and preservation

The La Ramée site (x: 704,350; y: 1803,375) was discovered at La Ramée, at the western part of La Désirade, during the 1999 surveys (fig. 5.2). Site dimensions are 100 m east to west and 75 m north to south. The archaeological material consists of heavily fragmented pottery sherds. As

	MNI count	MNI weight	Fragment weight	Total weight
Strombus gigas	202	32,735	3570	36,305
	25.9	59.8	29.7	54.4
Cittarium pica	364	20,413	7905	28,318
	46.7	37.3	65.9	42.4
Nerita sp.	44	32	10	42
	5.6	< 0.1	0.1	0.1
Other	170	1550	491	2041
	21.8	2.8	4.1	3.0
Unidentified	0	0	18	18
	0.0	0.0	0.2	< 0.1
Total	780	54,730	11,994	66,724
	100.0	100.0	100.0	100.0

Table A3.137. MNI counts, MNI weights (g), fragment weight (g), total weight (g) and percentages of the main shell species from Aéroport.

Sample ID	Provenance (unit, level)	Material	BP date	Cal. AD 2σ (95.4%)	Cal. AD 1σ (68.3%)
GrN-26811	Unit 1, level 2	*Cittarium pica*	1290 ± 20	1057-1167	1074-1136, 1147-1151
GrN-26812	Unit 1, level 4	*Cittarium pica*	1315 ± 25	1036-1155	1049-1112
GrN-26813	Unit 1, level 7	*Cittarium pica*	1390 ± 25	976-1053	1001-1036

Table A3.138. Aéroport radiocarbon dates.

the dispersed distribution, the limited number and the heavy fragmentation of the finds suggested that the site was rather shallow, no test units were excavated. A limited amount of ceramic off-site material was found. Vegetation lightly covers the soil, which consists of compact, clayey sand. Surface visibility is rather good. The site appears to have been destroyed as a result of cultivation of the terrain and of constructions at La Ramée.

3.28.2 Archaeological materials

A small surface collection was made at the site consisting of 25 non-diagnostic sherds, weighing 202 g.

3.28.3 Chronological assignment

The site yielded Late Ceramic A pottery (unidentified style).

3.29 SITE 19 (97110-036; SC22)

3.29.1 Site location and preservation

Site 19 (x: 704,600; y: 1803,600) was discovered east of the Ramée site across several fenced properties in the western part of La Désirade during the 1999 surveys (fig. 5.2). The La Ramée inhabitants own the site terrain. Site dimensions are approximately 200 m east to west and 85 m north to south. The archaeological material consists of a thin and even distribution of small pottery sherds. As the dispersed distribution, the limited number and the heavy fragmentation of the finds suggested that the site was rather shallow, no test units were excavated. A limited amount of ceramic off-site material was found. Vegetation lightly covers the soil, which consists of compact clayey sand. Passage across the terrain is hindered as a result of the many fences but surface visibility is rather good. The site appears to have been perturbed as a result of cultivation of the terrain.

3.29.2 Archaeological materials

A small surface collection was made at the site consisting of 32 pottery sherds, together weighing 302 g, and one local volcanic rock hammer-stone.

3.29.3 Chronological assignment

The site yielded Late Ceramic A pottery (unidentified style).

3.30 CHEMIN DE LA MONTAGNE (97110-037; SC27)

3.30.1 Site location and preservation

The Chemin de la Montagne site (x: 710,575; y: 1806,775) was discovered on a flat terrain, north of the sandy road that crosses the central plateau of La Désirade, during the 1999 surveys (fig. 5.2). Site dimensions are 225 m east to west and 135 m north to south. The archaeological material on the surface is characterised by a thin and even distribution of heavily fragmented non-diagnostic pottery sherds. As the dispersed distribution, the limited number and the heavy fragmentation of the finds suggested that the site was rather shallow, no test units were excavated. Some ceramic off-site material was found south of the site. Vegetation densely covers the soil, which consists of loose clayey sand. It is not difficult to traverse the terrain, though, as vegetation is not thorny. Surface visibility is rather good. The site appears to be seriously eroded and disturbed as a result of cultivation in the past.

3.30.2 Archaeological materials

A surface collection has been made at the site, including one rim, 35 body sherds, together weighing 444 g, and three local volcanic rock grinding-stone fragments. As it had been decided to use rims larger than 5 cm for further investigation, and no such rims had been found, no morphological and technological description could be provided for the ceramics of this site.

3.30.3 Chronological assignment

The site yielded Late Ceramic A pottery (unidentified style).

3.31 POINTE GROS REMPART (97110-038; SC28)

3.31.1 Site location and preservation

The Pointe Gros Rempart (x: 712,600; y: 1806,625) was discovered on a protruding coastal plateau on the southern plain of La Désirade, just west of Baie Mahault bay, during the 1999 surveys (fig. 5.2). Site dimensions are 75 m from west to east and 60 m north to south. The archaeological material on the surface consists of an even distribution of mainly lithic artefacts of local raw materials such as chert and igneous rock. Lithic artefacts include flakes, cores, a small quantity of hammer-stones and flaking waste material. In addition, some pottery sherds and shell and coral artefacts were collected as well. Shell fragments, including *Cittarium*

pica, *Strombus gigas* and *Chiton* sp., and some coral fragments were observed but not collected. A small concentration of artefacts, measuring 10 x 25 m, was identified at the centre of the site. Two test units were excavated there. No off-site material was found. Low shrubby vegetation covers 0-20 percent of the soil, which consists of loose, medium-structured, well-drained clayey sand with exposed bedrock at many locations. Surface visibility is very good. The site, which is presently used for goat herding, and which appears to be rather superficial, and is slightly disturbed as a result of erosion.

3.31.2 Test units and stratigraphy

Two test units measuring 1 m^2 were excavated (fig. A3.32). The north-west corners of the units, measuring 20 x 20 cm, were sieved over 2 mm screens. The units demonstrated that the archaeological material is mostly restricted to the surface and that the site is very shallow. The northwest corner of unit 1 was located at 712581.719; 1806612.033; 5.82 (Guadeloupe - Ste. Anne system) or 16°19′42.6695″; -61°0′50.7781″; -37.98 (WGS84). The northwest corner of unit 2 was located at 712570.502; 1806612.394; 5.85 (Guadeloupe - Ste. Anne system) or 16°19′42.6848″; -61°0′51.1558″; -37.95 (WGS84).

3.31.3 Archaeological materials

The material described includes the 1999 surface collections as well as material from the test units.

3.31.3.1 Pottery

One rim and seven body sherds, weighing 108 g, were collected. No fragments belonging to the appendage/other category, bases or griddles were found. No red slipped or decorated sherds were collected. As it had been decided to use rims larger than 5 cm for further investigation, and no such rims had been found, no morphological and technological

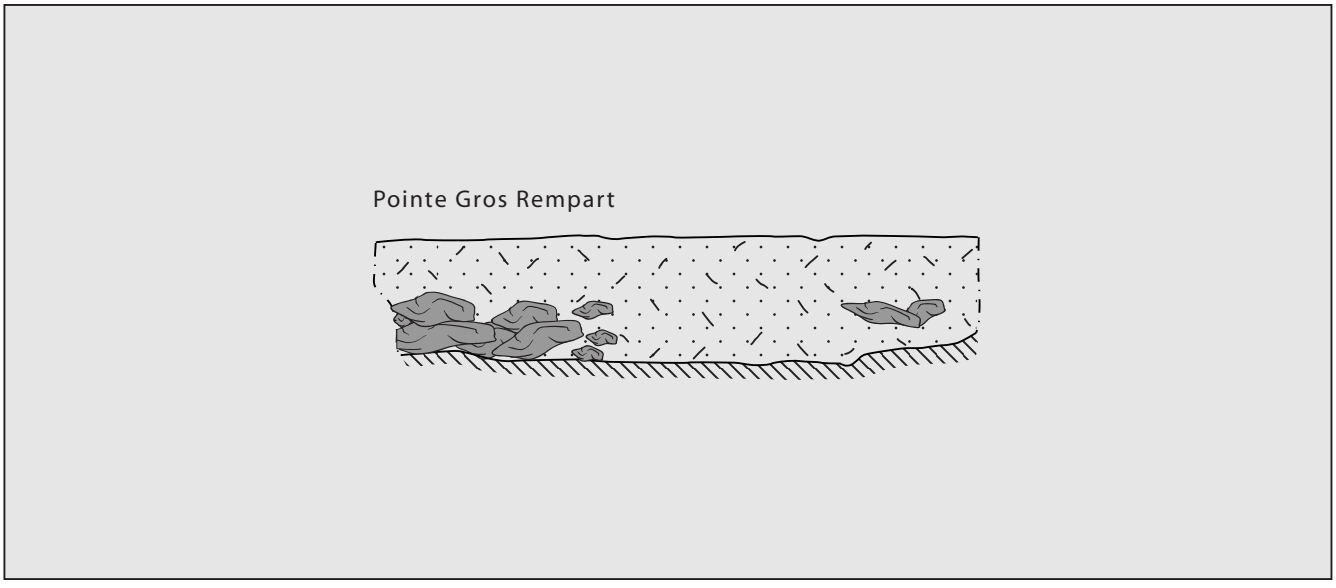


Fig. A3.32. Pointe Gros Rempart, unit 2 (1 m^2), south section.

description could be provided for the ceramics of this site.

3.31.3.2 Lithic artefacts
A total of 63 lithic artefacts was collected (tables A3.139-A3.140). These include several igneous rock pieces such as one unidentified piece (possibly a flake), one pebble, a burnt and broken pebble, one flaked pebble fragment, two pitted hammer-stone pebbles and one fragment, three pebble fragments, one flaked pebble (possibly a flake core), six flakes and two pebble flakes. One flake core, five flakes, one indistinct flake core and four shatter pieces of dark gray chert were collected as well, as were 20 flakes, three flake cores and one shatter piece of local red chert, two small white chert flakes and three shatter pieces of a non-local red chert. One burnt unidentified flint flake, two Long Island flint flakes and one dark gray-brown flake of a chert or flint pebble, were found as well. The cortex of the latter artefact suggests that it is chert. The material is dissimilar to the other dark chert found at the site. It uncertain whether this material is local. The dark gray chert artefacts are very similar to those from the Pointe Doublé site, although the material is more flint-like there. This further confirms the local origin of the material. Although no red chert has surfaced at the site, the material appears to actually have been worked there.

3.31.3.3 Shell artefacts
Two *Strombus gigas* artefacts, possibly gouges with a sharpened edge, were discovered.

3.31.3.4 Coral artefacts
Very few coral artefacts were found. Three unidentified *Acropora palmata* objects were collected at the surface and the units yielded nine heavily used *Acropora palmata* passive grinding tool fragments.

3.31.4 Chronological assignment
The chronological assignment for the site is largely undetermined, as neither ceramics nor ^{14}C samples could be collected for analysis. The site was probably used on a very limited scale from time to time by people living at different sites on La Désirade in pre-Columbian times. The archaeological material does not suggest pre-ceramic use of the site.

3.32 RAVINE À MOKO (97110-039; SC29)

3.32.1 Site location and preservation
The Ravine à Moko site (x: 711,000; y: 1806,700) was

	Total
Igneous rock	19 30.2
Long Island flint	2 3.2
Unidentified flint	1 1.6
Local dark gray chert	12 19.0
White chert	2 3.2
Local red chert	24 38.1
Non-local red chert	3 4.7
Total	63 100.0

Table A3.139. Number and percentages of Pointe Gros Rempart rock types.

	Total
Pebble	2 3.2
Pebble fragment	4 6.4
Hammer-stone	3 4.7
Flake	39 61.9
Flake core	6 9.5
Shatter piece	8 12.7
Unidentified	1 1.6
Total	63 100.0

Table A3.140. Number and percentages of Pointe Gros Rempart lithic artefact types.

discovered during the 1999 surveys on the western border of the Moko ravine and east of the trail leading to Morne Cybèle (fig. 5.2). Site dimensions are 170 m east to west and 230 m north to south. The archaeological material on the surface consists of five patches characterised by small pottery fragments, which are linked by areas with fewer artefacts. Shell fragments, including *Cittarium pica* and *Strombus gigas*, have been observed on the surface but these have not been collected. The material in the concentrations is not evenly distributed neither. The concentrations measure 60 x 40 m (SC29a), 8 x 20 m (SC29b), 10 x 10 m (SC29c), 20 x 40 m (SC29d) and 15 x 40 m (SC29e). SC29a and SC29b have the densest find densities, while SC29d contains very few artefacts. A lot of ceramic off-site material was found. No test units were excavated. Dense thorny bush covers 21-40 percent of the soil, which consists of fine, moderately well drained sandy clay with many stones. Several open patches facilitate passage across the terrain and surface visibility. The terrain is not used at present but it appears to have been moderately disturbed as a result of erosion.

3.32.2 Archaeological materials

The material described includes the 1999 surface collection, which consists of 540 g of pottery and four lithic artefacts.

3.32.2.1 Pottery

A total of 20 sherds was collected, together weighing 540 g (table A3.141). No fragments belonging to the appendages/other category were collected. Six red slipped and two sherds decorated by incision were found. One red slipped rim larger than 5 cm was decorated by an elaborate scroll-motif incision (fig. A3.33). One flat base and a legged griddle fragment were found as well.

The morphological description of the pottery has been based on the analysis of four weathered rims larger than 5 cm. Vessel shapes include one jar and two bowls with unrestricted simple contours and one remains unidentified. Rim shapes are rounded, inward and double thickened and unidentified. The wall thickness of all rims is 9-11 mm and orifice diameters are 21-30 cm and 31-40 cm and the orifice diameter of two rims remains unidentified. Surface colours are reddish brown for two sherds, dark brown/very dark brown and unidentified. Incomplete or relatively good oxidation is the firing technique and for one sherd it remains unidentified. One of the sherds has been irregularly fired. The finishing of the outer surfaces of all four rims is unidentified.

3.32.2.2 Lithic artefacts

Three flaked pebbles and one flake of local volcanic rock were collected.

3.32.3 Chronological assignment

The site yielded Late Ceramic A pottery (unidentified style).

Fig. A3.33. Sherd from the surface of Ravine à Moko (scale 1:2) decorated by an elaborate scroll-motif incision.

	Number	Number %	Weight	Weight %
Rim	10	50.0	276	51.1
Body	8	40.0	152	28.2
Base	1	5.0	34	6.3
Griddle	1	5.0	78	14.4
Appendage/other	0	0.0	0	0.0
Total	20	100.0	540	100.0

Table A3.141. Number, percentages and weight (g) of sherds from Ravine à Moko.

3.33 LES ÉOLÉENS (97110-040; SC30)

3.33.1 Site location and preservation

The Les Éoléens site (x: 708,825; y: 1804,900) was discovered on the terrain of the windmills that were built above Souffleur on the southern part of the central plateau on La Désirade, during the 1999 surveys (fig. 5.2). Site dimensions are 200 m east to west and 30 m north to south. The archaeological material on the surface consists of an even distribution of moderately fragmented ceramics. Shell fragments, including *Cittarium pica* and *Chiton* sp., were observed but not collected. The western part of the site appears to have a slightly denser concentration of archaeological material. A very limited amount of ceramic off-site material was found north of the site. No test units were excavated. Low thorny shrub covers 21-40 percent of the soil, which consists of loose, fine, moderately well drained, dusty sandy clay. Surface visibility is very good. The biggest part of the site has been destroyed as a result of windmill constructions on the site. The surface distribution is further negatively influenced by cultivation in the past and by continuing erosion as the site is virtually without protection of vegetation.

3.33.2 Archaeological materials

The material described consists of the 1999 surface collection that includes two lithic artefacts and a small amount (1150 g) of pottery.

3.33.2.1 Pottery

A total of 88 rather weathered sherds was collected, mostly body sherds (71.6%), together weighing 1150 g (table A3.142). No fragments belonging to the appendages/other category were found. A total of 30 sherds has red slipped surfaces (34.1%) and four red slipped sherds (4.5%) have been decorated by small, narrow incision. Three flat and one unidentified base fragment and four unidentified griddle fragments were found as well. The morphological description of the pottery has been based on the analysis of two rims larger than 5 cm. These belong to a jar and a bowl with unrestricted simple contours. Rim shapes are rounded and flattened. Wall thicknesses range between 6-8 mm and 9-11 mm and orifice diameters range between 11-20 cm and 21-30 cm. Surface colours are reddish brown and red. Firing techniques include complete reduction and incomplete or relatively good oxidation. The finishing of the outer surfaces includes light burnishing or unidentified finishing.

3.33.2.2 Lithic artefacts

Two local volcanic rock artefacts were collected. These include one pebble fragment, with hammering pits on the edge and sides, and one complete pebble with clear use wear. The latter is probably an axe-preform with lightly pecked sides and ends, which are the result of hammering activities.

3.33.3 Chronological assignment

The site yielded Late Ceramic A pottery (unidentified style).

3.34 MORNE SOUFFLEUR (97110-041; SC31A, SC31B)

3.34.1 Site location and preservation

The Morne Souffleur site (SC31a; x: 708,725; y: 1804,800) was discovered during the 1999 surveys on the southern border of the central plateau of La Désirade, west of the terrain of the windmills (fig. 5.2). Site dimensions are 90 m east to west and 35 m north to south. The archaeological

	Number	Number %	Weight	Weight %
Rim	17	19.2	250	21.7
Body	63	71.6	602	52.4
Base	4	4.6	170	14.8
Griddle	4	4.6	128	11.1
Appendage/other	0	0.0	0	0.0
Total	88	100.0	1150	100.0

Table A3.142. Number, percentages and weight (g) of sherds from Les Éoléens.

material on the surface consists of an even distribution of moderately fragmented Morne Cybèle style ceramics. Some shell fragments, including *Cittarium pica*, *Strombus gigas*, *Codakia orbicularis* and *Chiton* sp., were found as well. A 30 x 50 m concentration was identified near the border of the plateau. Another small concentration (SC31b), with hardly any shell material on the surface, was identified 15 m west of the Éoléens site (97110-040) and 15 m east of SC31a. This 10 x 10 m concentration is also situated right on the border of the plateau and it is deemed to be part of the Morne Souffleur site. Both concentrations are linked by a very small amount of ceramic surface material. A lot of unidentified Late Ceramic A ceramic off-site material was found. Vegetation covers 41-60 percent of the soil, which consists of loose, fine, moderately well drained dusty clay with a small sand component. Passage across the terrain is very easy and surface visibility is good. Mr. Jean De l'Orme (La Montagne) claims the site terrain that is presently used for cultivation as it probably was in the past. Parts of the site are seriously disturbed as a result of cultivation. During the 2000 fieldwork campaign, it turned out to be complicated to find the exact 1999 test unit locations as a result of recent digging activities. Moreover, the part of the site that is at the edge of the plateau is eroded. As was also reported for the Morne Cybèle site (97110-012), archaeological material appears to be present in bedrock cavities. Other parts of the archaeological deposits and the midden area, which are located in the interior part of the site, appear to be intact. However, archaeological intervention is highly recommendable!

3.34.2 Test units and stratigraphy

Two 2 x 2 m test units were excavated (fig. A3.34). These demonstrated the existence of an archaeological layer at 0-20 cm below the surface. The northwest corner of unit 1 was located at 708666.459; 1804733.933; 274.62 (Guadeloupe - Ste. Anne system) or 16°18′42.8127″; -61°3′3.2616″; 231.10 (WGS84). The northwest corner of unit 2 was located at 708666.797; 1804739.472; 274.43 (Guadeloupe - Ste. Anne system) or 16°18′42.9927″; -61°3′3.2484″; 230.92 (WGS84).

3.34.3 Archaeological materials

The material described includes the 1999 surface collections as well as the material from the test units.

3.34.3.1 Pottery

A total of 385 sherds was collected, mostly body sherds (74.6%), together weighing 4723 g (table A3.143). The appendages/other category represents 1.3% of the sample. This includes a lug, vessel-legs, an *adorno* and an unidentified appendage (table A3.144). The legs may also belong to a figurine, however. A total of 31 sherds has red slipped surfaces (8.1%) and eight sherds (2.1%) are decorated by incision, geometric modelling decorated by punctation, anthropomorphic modelled incised *appliqué* and punctation (table A3.145; fig. A3.35). One lug and one small leg are decorated by a combined decoration of incision and punctation. The anthropomorphic modelled incised *adorno* is also embellished by punctation. A total of 19 flat bases was found, as were eight unthickened griddles. All griddle fragments are part of one griddle but they could not be fitted. A significant share of the pottery has rather weathered surfaces.

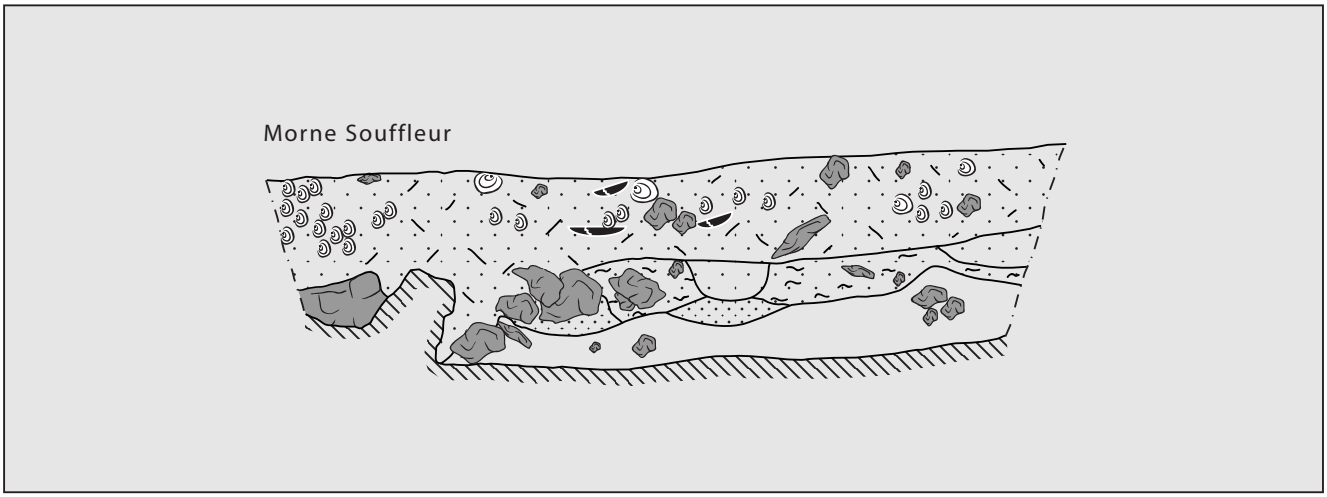
The morphological description of the pottery has been based on the analysis of 19 rims larger than 5 cm. These belong to jars and bowls with unrestricted simple contours (79.0%) and bowls with restricted simple contours (21.0%); (table A3.146; fig. A3.36). Dominant rim shapes are rounded (68.4%) and flattened (21.0%); (table A3.147). Wall thicknesses range between 1-5 mm (26.4%), 6-8 mm (36.8%) and 9-11 mm (36.8%) and orifice diameters range between 11-20 cm (21.0%), 21-30 cm (21.0%), 31-40 cm (21.0%) and 41-50 cm (10.6%), while 26.4% remains unidentified (tables A3.148-A3.149). Surface colours are predominantly reddish brown (47.4%), dark gray-black (15.5%), dark brown/very dark brown (10.6%), reddish-gray/dark reddish-gray (10.6%) and red (10.6%); (table A3.150). Firing techniques include incomplete or relatively good oxidation (47.4%), complete reduction (36.8%), as well as incomplete oxidation or reduction (15.8%); (table A3.151). One incomplete or relatively well oxidised rim and one incomplete oxidised rim had been irregularly fired. Surface finishing is predominantly characterised by burnishing (52.6%) and polishing (10.6%). For 36.8% the surface finishing could not be identified (table A3.152).

3.34.3.2 Lithic artefacts

The Morne Souffleur lithic artefacts include a lot of igneous pieces (tables A3.153-A3.154). These include three pebble fragments without use wear, four flakes, one angular abraded active or passive grinding/abrading stone pebble fragment, two large abraded pebble fragments (possible passive grinding/abrading stones), two complete pitted hammer-stones and 12 unidentified (possibly natural) fragments. In addition, one flaked pebble, three flakes and two shatter pieces of local red chert and one non-local red chert shatter piece, two conglomerate rock passive grinding-stone fragments, one complete and heavily weathered St. Martin chert petaloid celt (fig A3.37), unidentified green chert-like flake core and one limestone flake were found.

3.34.3.3 Shell artefacts

Three shell artefacts were found. These include two perforated unidentified *Cittarium pica* objects and a carved and heavily polished *Strombus costatus* shell mask (fig. A3.38). This 12 cm long mask, representing a human face adorned with a headband decorated by punctation, appears to be more or less three-dimensional as it follows the rounded structure of the complete shell. Somewhat similar shell masks, referred to as Taíno style (e.g. Bodu 1985[a]; see section 4.2.4 for comments), have been found in the region, for example at the Anse du Coq site on Marie-Galante (Hoogland and Hofman 1999) and at the Rendezvous Bay and Sandy Hill sites on Anguilla (Crock 2000; Crock and Petersen 1999); (*cf*. section 5.5.1). The style of the shell mask from the Morne Cybèle-1 site (97110-012) is slightly different.



0 to 19-52 cm: Fine, very dark brown (10YR;2/2) sandy clay with a humus component, a lot of plant roots and almost all the archaeological material, consisting of pottery, shell food remains, and lithic, shell and coral artefacts. At 15 cm depth, a beautifully decorated shell mask was found in the western part of the section.

19 to 29 cm and 26 to 36 cm: Sterile, dark brown (10YR;3/3) sandy clay with several rocks.

25 to 28-41 cm: Sterile, brown (10YR;4/3) sandy clay with a small humus component, intersected by patches of dark brown (10YR;3/3) and dark yellowish brown (10YR;4/6) sandy clay. This layer contained one lithic artefact, two coral artefacts and a very small amount of shell.

35 to 44 cm and 36 to 42 cm: Sterile, dark yellowish brown (10YR;4/6) sandy clay (maximum length 30 cm).

28-42 to 55 cm: Sterile, light gray (10YR;7/2) very powdery sandy clay with a lot of lithic bedrock nodules.

In the western part of the section, light-brownish gray (10YR;6/2) calcareous bedrock was reached at a depth of approximately 55 cm.

Pottery

Rock

Cittarium pica

Fig. A3.34. Morne Souffleur, unit 2 (2 x 2 m), south section.

	Number	Number %	Weight	Weight %
Rim	66	17.1	1272	26.9
Body	287	74.6	2651	56.1
Base	19	4.9	164	3.5
Griddle	8	2.1	580	12.3
Appendage/other	5	1.3	56	1.2
Total	385	100.0	4723	100.0

Table A3.143. Number, percentages and weight (g) of sherds from Morne Souffleur.

	Number	Number %
Lug	1	20.0
Vessel leg	2	40.0
Adorno	1	20.0
Unidentified appendage	1	20.0
Total	5	100.0

Table A3.144. Number and percentages of sherds within appendages/other categories from Morne Souffleur.

	Number	Number %
Incision	3	37.5
Modelling (geometric)	1	12.5
Modelled incised *appliqué* (anthropomorphic)	1	12.5
Punctation	3	37.5
Total	8	100.0

Table A3.145. Number and percentages of sherds with particular Morne Souffleur decoration modes.

	Number	Number %
Jar with unrestricted simple contour	6	31.6
Bowl with unrestricted simple contour	9	47.4
Bowl with restricted simple contour	4	21.0
Total	19	100.0

Table A3.146. Number and percentages of sherds within vessel shape categories from Morne Souffleur.

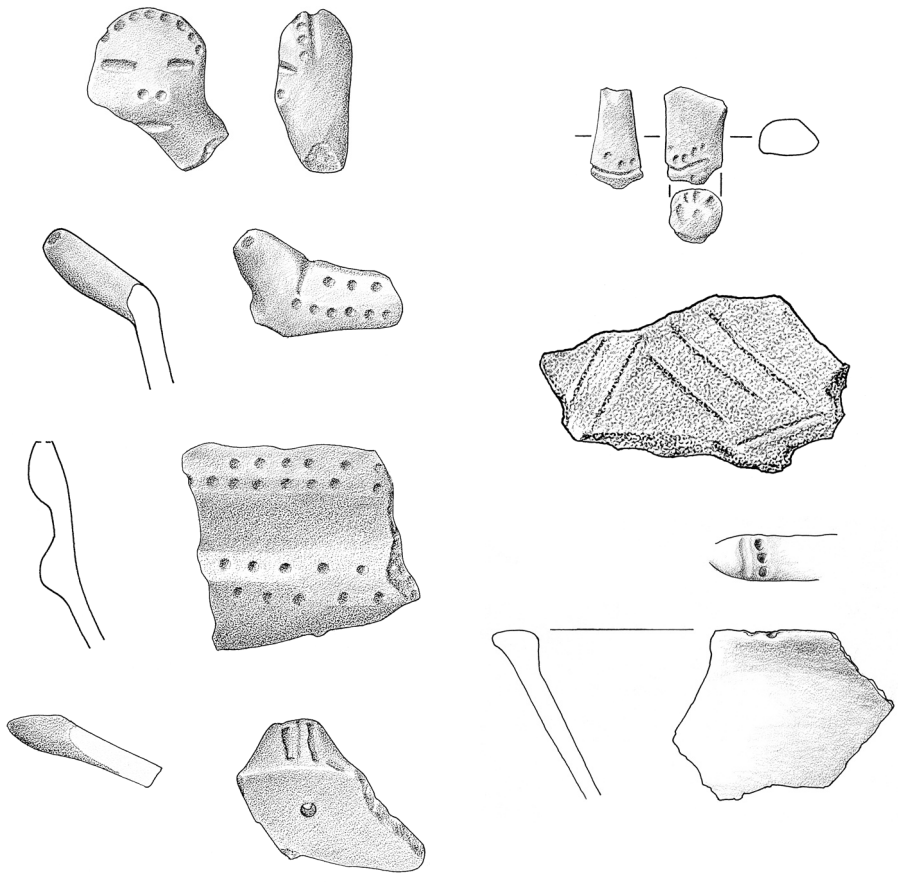


Fig. A3.35. Morne Cybèle style ceramics from the surface of Morne Souffleur (scale 1:2), decorated by incision and punctation.

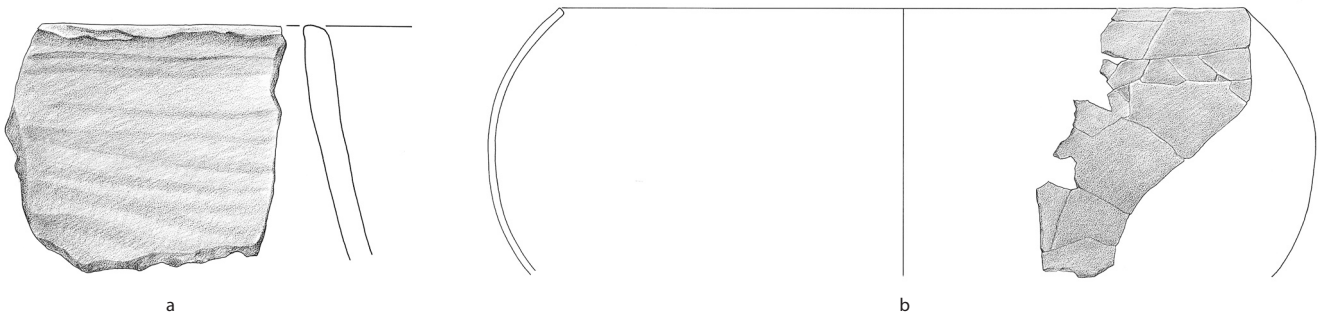


Fig. A3.36. Morne Souffleur ceramic vessels (a: surface, scale 1:3; b: unit 2, level 1, scale 1:4).

	Number	Number %
Rounded	13	68.4
Flattened	4	21.0
Inward thickened	1	5.3
Outward thickened	1	5.3
Total	19	100.0

Table A3.147. Number and percentages of sherds within rim shape categories from Morne Souffleur.

	Number	Number %
1-5 mm	5	26.4
6-8 mm	7	36.8
9-11 mm	7	36.8
Total	19	100.0

Table A3.148. Number and percentages of sherds within Morne Souffleur wall thickness categories.

	Number	Number %
11-20 cm	4	21.0
21-30 cm	4	21.0
31-40 cm	4	21.0
41-50 cm	2	10.6
Unidentified	5	26.4
Total	19	100.0

Table A3.149. Number and percentages of sherds within Morne Souffleur orifice diameter categories.

	Number	Number %
Dark gray-black	3	15.5
Light brown/brown	1	5.3
Dark brown/very dark brown	2	10.6
Reddish-gray/dark reddish-gray	2	10.6
Reddish brown	9	47.4
Red	2	10.6
Total	19	100.0

Table A3.150. Number and percentages of sherds within Morne Souffleur exterior surface colour categories.

	Number	Number %
Complete reduction	7	36.8
Incomplete oxidation or reduction	3	15.8
Incomplete or relatively good oxidation	9	47.4
Total	19	100.0

Table A3.151. Number and percentages of sherds within Morne Souffleur firing colour categories.

	Number	Number %
Lightly burnished	1	5.2
Highly burnished	9	47.4
Polished	2	10.6
Unidentified	7	36.8
Total	19	100.0

Table A3.152. Number and percentages of sherds within Morne Souffleur exterior surface finishing categories.

	Total
Igneous rock	24 66.6
Local red chert	6 16.7
Non-local red chert	1 2.8
St. Martin chert	1 2.8
Unidentified green chert	1 2.8
Limestone	1 2.8
Conglomerate rock	2 5.5
Total	36 100.0

Table A3.153. Number and percentages of Morne Souffleur rock types.

	Total
Pebble	1 2.8
Pebble fragment	3 8.3
Axe	1 2.8
Active or passive grinding-stone	1 2.8
Passive grinding-stone	4 11.1
Hammer-stone	2 5.5
Flake	8 22.3
Flake core	1 2.8
Shatter piece	3 8.3
Unidentified	12 33.3
Total	36 100.0

Table A3.154. Number and percentages of Morne Souffleur lithic artefact types.

3.34.3.4 Coral artefacts
Coral artefacts include 14 heavily used *Acropora palmata* passive grinding tool fragments, seven heavily used *Acropora palmata* active grinding tool fragments and one *Acropora palmata* unidentified object.

3.34.3.5 Shellfish remains
The main shellfish remains consisted of *Cittarium pica* (table A3.155). Other shell species represented in very low numbers and weights at the site included *Acanthopleura granulata*, *Astraea* sp., *Codakia orbicularis*, *Columbella mercatoria*, *Nerita* sp., *Nodilittorina tuberculata*, *Polia aritula*, *Polynisus lacteus*, *Strombus gigas, Tectarius muricatus*, *Tellina* sp., *Thais* sp., and *Tonna maculosa*.

3.34.3.6 Animal remains
The very small 2/5 inch sample (MNI 2, 6 g) of Morne Souffleur consists of the inshore species of porcupine fish and land hermit crab (Nokkert in appendix 5).

3.34.4 Chronological assignment
The Morne Souffleur site was frequented during the Late Ceramic B. The archaeological materials found at the site are rather identical to those found at the Morne Cybèle-1 site (97110-012). The style of the pottery is typically Morne Cybèle and it is quite a coincidence that both sites yielded a shell mask. The period of use of both sites may be similar as well. Calibrated radiocarbon dates, from a *Cittarium pica* sample, with a 95.4% confidence level suggest that Morne Cybèle was used around AD 1440-1480.

3.35 MORNE FRÉGULE (97110-042; SC36)

3.35.1 Site location and preservation
The Morne Frégule site (x: 703,850; y: 1803,750) was discovered at the slope descending from Morne Frégule towards the Anse des Galets site, in the western part of La Désirade, during the 1999 surveys (fig. 5.2). Morne Frégule is a small cave site where a small amount of heavily fragmented pre-Columbian pottery and two shell artefacts were found on the surface. Shell fragments were observed on the surface of the site, but they were not collected. No test units have been excavated. Almost no off-site material was found. The site has been almost completely destroyed as a result of the collapsing of an important part of the cave.

3.35.2 Archaeological materials
The material described includes the 1999 surface collection. This consists of a very small amount of pottery and two unidentified pointed artefacts from *Strombus gigas*. A total of

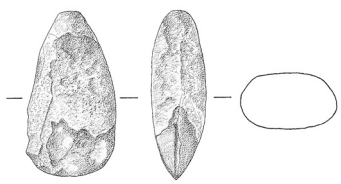


Fig. A3.37. St. Martin chert petaloid celt from the surface of Morne Souffleur (scale 1:3).

Fig. A3.38. *Strombus costatus* mask from Morne Souffleur (unit 2, level 2, scale 1:3).

	MNI count	MNI weight	Fragment weight	Total weight
Cittarium pica	165	6032	7183	13,215
	73.7	94.2	95.9	95.1
Nerita sp.	13	7	0	7
	5.8	0.1	0.0	< 0.1
Other	46	362	303	665
	20.5	5.7	4.1	4.7
Unidentified	0	0	5	5
	0.0	0.0	< 0.1	< 0.1
Total	224	6401	7491	13,892
	100.0	100.0	100.0	100.0

Table A3.155. MNI counts, MNI weights (g), fragment weight (g), total weight (g) and percentages of the main shell species collected at Morne Souffleur.

14 sherds, weighing 82 g, has been collected. As it had been decided to use rims larger than 5 cm for further investigation, and no such rims were found, no morphological and technological description could be provided for the ceramics of this site.

3.35.3 Chronological assignment

The site yielded Late Ceramic A pottery (unidentified style).

3.36 GROTTE DE MORNE BLANC (97110-043; SC37)

3.36.1 Site location and preservation

The Grotte de Morne Blanc site (x: 705,200; y: 1803,800) was discovered at Morne Blanc during the 1999 surveys (fig. 5.2). The site is on a terrain that was cultivated in the past, but which has recently been abandoned. It is a cave site, of which the greater part has collapsed, making it difficult to estimate the dimensions and the importance of this site. In the cave, a very small concentration of heavily fragmented non-diagnostic ceramics was encountered, associated with small shell and lithic fragments. No test units were excavated. Limited amounts of ceramic off-site material were found. As the cave has partly collapsed, a substantial part of the site cannot be studied.

3.36.2 Archaeological materials

A surface collection was made at the site, consisting of 13 sherds, representing 174 g of pottery. As it had been decided to use rims larger than 5 cm for further investigation, and no such rims were found, no morphological and technological description could be provided for the ceramics of this site.

3.36.3 Chronological assignment

The site yielded Late Ceramic A pottery (unidentified style).

3.37 SITE 28 (97110-044; SC38)

3.37.1 Site location and preservation

Site 28 (x: 712,325; y: 1807,975) was discovered at the foot of the central plateau of La Désirade, between Site 8 (97110-028) and the sites of Grand Abaque 1 (97110-026) and Grand Abaque 2 (97110-027) during the 1999 surveys (fig. 5.2). Site dimensions are 60 m east to west and 40 m north to south. The distribution of archaeological material on the surface is thin but even and it is characterised by heavily fragmented pottery sherds. As the dispersed distribution, the limited number and the heavy fragmentation of the finds suggested that the site was rather shallow, no test units were excavated. A lot of ceramic off-site material was found, in the area leading towards Site 8 to the south-west of the site in particular. Rather open vegetation covers 0-20 percent of the soil, which consists of coarse, well-drained loose sand. Surface visibility is very good. Although the terrain is not used nowadays, the site seems to have been disturbed by cultivation in the past.

3.37.2 Archaeological materials
A surface collection was made at the site consisting of 21 non-diagnostic sherds, weighing 224 g.

3.37.3 Chronological assignment
The site yielded Late Ceramic A pottery (unidentified style).

3.38 SITE 29 (97110-045; SC39)

3.38.1 Site location and preservation
Site 29 (x: 705,375; y: 1803,425) was discovered in an abandoned terrain at the southern plain of La Désirade, east of the saline and at the foot of Morne Blanc, during the 1999 surveys (fig. 5.2). Site dimensions are 70 m east to west and 50 m north to south. Grass covers 41-60 percent of the soil, which consists of rather loose, medium structured, moderately well drained sand. Surface visibility is rather good. The site is situated very close the north-western border of the Les Sables site (97110-010). The distribution of archaeological material on the surface is even and consists of small non-diagnostic pottery sherds. No off-site material was found. No test units were excavated. The site appears to be eroded as a result of cultivation in the past.

3.38.2 Archaeological materials
A surface collection was made, consisting of a small amount of heavily fragmented, non-diagnostic, ceramics. A total of 13 sherds was collected, mostly body sherds (76.9%), weighing 324 g (table A3.156). No fragments belonging to the appendages/other category, griddle fragments or decorated sherds were found. Four sherds with red slipped surfaces (30.8%) and one flat base were collected. As it had been decided to use rims larger than 5 cm for further investigation, and no such rims were found, no morphological and technological description could be provided for the ceramics of this site.

3.38.3 Chronological assignment
The site yielded Late Ceramic A pottery (unidentified style).

3.39 TROU MADAME (97110-046; SC40)

3.39.1 Site location and preservation
The Trou Madame site (x: 708,500; y: 1804,575) was discovered on the southern border of the central plateau of La Désirade during the 1999 surveys (fig. 5.2). Site dimensions are 175 m east to west and 60 m north to south. The archaeological material on the surface consists of a small, even distribution of heavily fragmented, non-diagnostic, pottery sherds. As the dispersed distribution, the limited number and the heavy fragmentation of the finds suggested that the site was rather shallow, no test units were excavated. No off-site material was found. Dense vegetation covers the soil, which consists of loose clayey sand. Although the vegetation is not thorny, it was quite difficult to traverse the terrain. Surface visibility is very good. The site appears to have eroded as a result of cultivation in the past.

3.39.2 Archaeological materials
A surface collection was made, consisting of four rims and 42 body sherds, weighing 410 g. No fragments belonging to the appendages/other category, bases, griddles, red slipped or decorated sherds were found. The morphological description of the pottery has been based on the analysis of two rims, with weathered surfaces, larger than 5 cm. These belong to a jar and a bowl with unrestricted simple contours

	Number	Number %	Weight	Weight %
Rim	2	15.4	44	13.6
Body	10	76.9	222	68.5
Base	1	7.7	58	17.9
Griddle	0	0.0	0	0.0
Appendage/other	0	0.0	0	0.0
Total	13	100.0	324	100.0

Table A3.156. Number, percentages and weight (g) of sherds from Site 29.

with rounded rims. Wall thicknesses range between 9-11 mm and orifice diameters are between 21-30 cm or unidentified. Surface colours are reddish brown, firing techniques include incomplete or relatively good oxidation and surface finishing is unidentified.

3.39.3 Chronological assignment
The site yielded Late Ceramic A pottery (unidentified style).

3.40 PARC À JOJO (97110-047; SC41)

3.40.1 Site location and preservation
The Parc à Jojo cave site (x: 705,125; y: 1803,475) was discovered on the slope of Morne Blanc during the 1999 surveys (fig. 5.2). Site dimensions are 10 x 10 m and the cave is approximately 4 m high. A very thin distribution of heavily fragmented, non-diagnostic ceramics was found on the surface of the cave floor. As the dispersed distribution, the limited number and the heavy fragmentation of the finds suggested that the site was rather shallow, no test units were excavated. Ceramic off-site material was found in limited quantities at a large distance from the site, in the area leading towards the salina. The soil in and just outside the cave consists of loose, coarse, moderately well-drained sand with stones. The site appears to have been rather well preserved.

3.40.2 Archaeological materials
A small surface collection was made, consisting of seven sherds, representing 252 g of pottery.

3.40.3 Chronological assignment
The site yielded Late Ceramic A pottery (unidentified style).

3.41 CHEMIN DU LATANIER (97110-048; SC42)

3.41.1 Site location and preservation
The Chemin du Latanier site (x: 704,150; y: 1803,875) was discovered on an abandoned terrain between Morne Frégule and Morne à Marthe, at the north-western part of La Désirade, during the 1999 surveys (fig. 5.2). Site dimensions are 30 m east to west and 30 m north to south. The archaeological material on the surface consists of a small and even distribution of heavily fragmented, non-diagnostic, pottery sherds associated with colonial and sub-recent material. As the dispersed distribution, the limited number and the heavy fragmentation of the finds suggested that the site was rather shallow, no test units were excavated. A very limited amount of ceramic off-site material was found. Leaves of the local shrubby vegetation cover 21-40 percent of the soil, which consists of loose, coarse, poorly drained clayey sand. Surface visibility is rather good.

3.41.2 Archaeological materials
A small surface collection was made, consisting of 15 sherds, representing 78 g of pottery.

3.41.3 Chronological assignment
The site yielded Late Ceramic A pottery (unidentified style).

3.42 CHEMIN DE M. DE L'ORME (97110-049; SC43)

3.42.1 Site location and preservation
The Chemin de M. De l'Orme site was discovered in the middle of a dirt track, leading to the gardens of Mr. De l'Orme on the central plateau, during the 1999 surveys (fig. 5.2). It was revealed by accident while traversing the plateau for a tourist walk. The site is a small isolated depot, consisting of a complete vessel, decorated with an elaborate pelican motif, in which a small stone axe and an adze of non-local material had been deposited (fig. A3.39). The surroundings of the find-spot have been intensively investigated but no off-site material was discovered, except for seven small sherds (653 g) and two small lithic artefacts close to the depot, and no evidence was found for a burial or a house-construction with which the deposition may have been associated. No test units were excavated. No vegetation covers the soil, which consists of clayey sand with limestone bedrock nodules. Surface visibility is very good. A very thin layer of sediment covers bedrock. Before deposition of the vessel, a small hole had been dug in the bedrock layer to provide a snug fit and protection. The base of the vessel was firmly placed in this cavity, while only the rim of the vessel was visible on the surface. A 12 cm deep sediment layer hid the rest of the vessel from view. As the find-spot is situated in the middle of a dirt track, slight erosion influenced the find spot.

The vessel was located at 707544.554; 1804749.133; 269.41 (Guadeloupe - Ste. Anne system) or 16°18′43.6548″; -61°3′41.0437″; 225.96 (WGS84).

3.42.2 Archaeological materials
The site consists of one complete pelican-decorated vessel,

in which two lithic artefacts were deposited. The complete vessel is red slipped and pelican-formed. Although the decoration as a whole is quite impressive, the incisions appear to have been applied quite carelessly. The vessel is a jar with an independent restricted inflected contour with an inward thickened rim shape. Wall thickness is between 6-8 mm and orifice diameter is between 11-20 cm. The colour of the outer surface is reddish brown, the vessel is incompletely or relatively well oxidised and the outer surface is highly burnished. The lithic artefacts found in the vessel are a finely made small axe and adze of non-local material. They appear not to have been used prior to deposition. A small local red chert flake core and a shatter piece of an unknown chert variety were found in the vicinity of the site.

3.42.3 Chronological assignment

The site dates to the Late Ceramic A.

3.43 POINTE À GODARD (97110-051; SC35)

3.43.1 Site location and preservation

Although Bodu reported the Pointe à Godard site (x: 707,000; y: 1803,775) in 1984, on the basis of information provided by Père Guilbert, it was not registered in the DRAC site inventory. The site was restudied in 1999. It is situated in a cultivated field close to the sea on the southern coastal plain of La Désirade, south of the easternmost salina in Grande

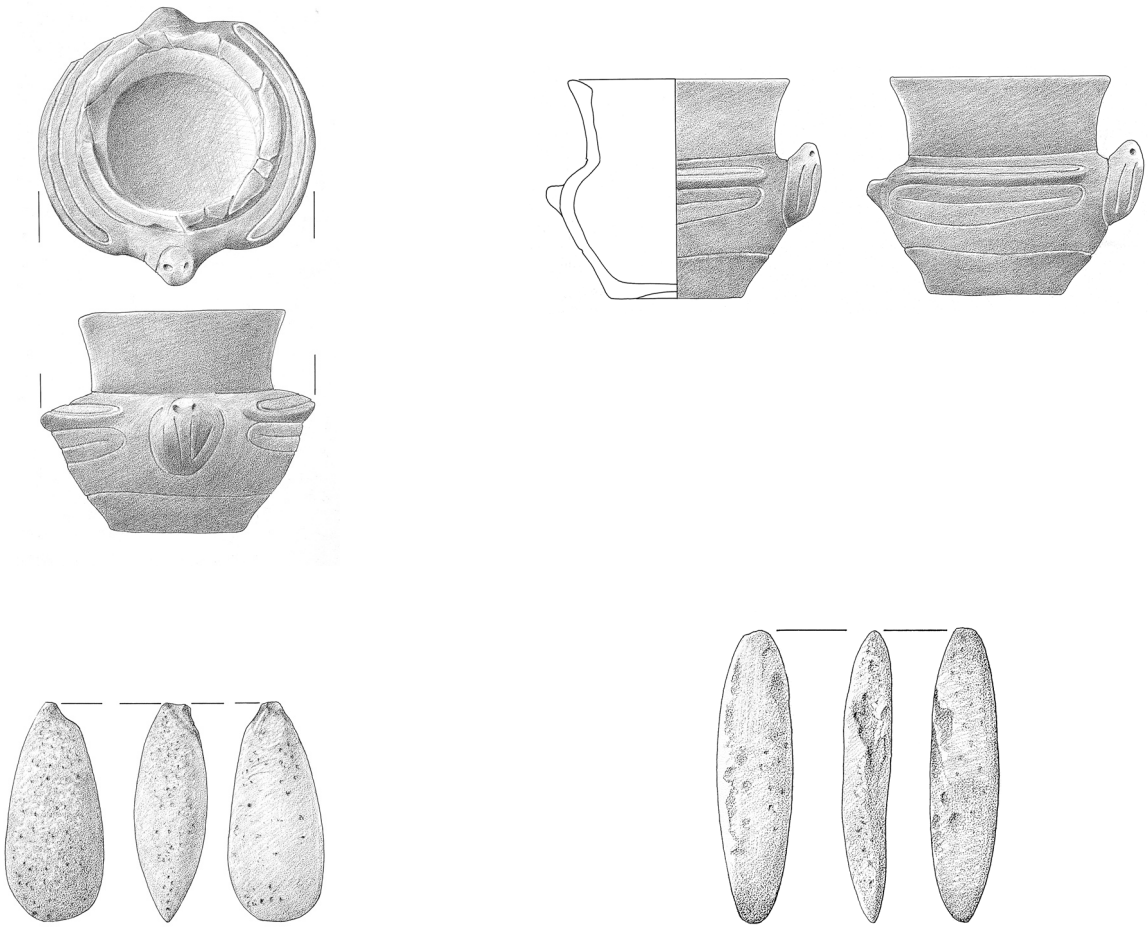


Fig. A3.39. Pelican vessel (scale 1:4) from Chemin de M. de l'Orme and its contents: a stone axe (scale 1:3) and an adze (scale 1:4) of non-local material.

Anse (fig. 5.2). Bodu mentions that a lot of ceramic material could be collected in 1984. Unfortunately, this material was not available for study and almost no new surface material could be collected as the 1999 survey revealed that the site has been almost completely destroyed. The dimensions of the area where nowadays a very small amount of archaeological material can be found, are 25-50 m from north to south and 475 m from west to east. The surface material consists of an even distribution of moderately fragmented ceramics and fragments of *Cittarium pica* and *Strombus gigas*. Some ceramic and shell off-site material was found north and east of the site. Leaves of the local mancenilla tree and sea grape cover 0-20 percent of the soil, which consists of loose, coarse, well-drained sand. Surface visibility is good. The road appears to have destroyed an important part of the northern site area, and coastal erosion has demolished the southern part of the site. The site terrain is currently used for gardening, sand pillage and constructions, impacting negatively on what is left of the site. A large part of the site appears to have been bulldozed. No test units were excavated.

3.43.2 Archaeological materials

The material described includes the 1999 surface collection. This consists of two weathered rims, two body sherds and two griddle fragments, representing 182 g of pottery. No fragments belonging to the appendage/other category and no base fragments were collected. Two of the collected sherds have red slipped surfaces and one sherd is decorated by small narrow incision on red slip. Two straight griddle fragments were found as well. The morphological description of the pottery has been based on the analysis of two rims larger than 5 cm. These are part of a jar with an unrestricted simple contour and of a jar with an independent restricted inflected contour with rounded rims. Wall thicknesses are between 6-8 mm and orifice diameters range between 11-20 cm and 21-30 cm. Surface colours are dark brown/very dark brown and reddish brown, the firing technique includes incomplete or relatively good oxidation and surface finishing is polished and unidentified. Both rim sherds belong to irregularly fired pottery. In addition, one *Strombus gigas* adze and a large piece of amethyst were found on the surface of the site in 1999.

3.43.3 Chronological assignment

Bodu tentatively dated the site to approximately AD 600-650 on the basis of the pottery he collected. However, the material found during the 1999 surveys belongs to the Late Ceramic A.

NOTES

1 *Ampulladoria* sp. is a fresh water shell.

2 http://www.depts.washington.edu/qil/calib/, accessed October 2002.

3 Compare with Saban assemblages around AD 800-1200.

4 The land snail *Bulimulus guadalupensis* accounts for the large numbers and weights for other shell species.

5 Bodu also mentioned the existence of a Morne Cybèle-3 site, located between the Morne Cybèle-1 and Morne Cybèle-2 sites, but as it yielded just one single base-sherd the site has not been registered here.

6 http://www.depts.washington.edu/qil/calib/, accessed October 2002.