

THE NEVIS HERITAGE PROJECT

**INTERIM REPORT
2000**

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INTRODUCTION

Brief History of the Project

In 1995, the Government of St. Kitts-Nevis announced that it would begin to develop the Newcastle Airport on Nevis in response to demand from increasing tourism and general economic growth in the Caribbean. The plans indicated that all structures in the village of Newcastle would be demolished to facilitate this necessary development. One unusual building which fell directly within the line of the extended runway was the Redoubt, a colonial fortification. In response to this threat, a small team of researchers organised by the Department of Archaeology, University of Southampton was quickly assembled to conduct a structural survey and archaeological excavation of the building with the aim to preserve the memory of this remnant of the historical past by archive records and photographs. The Nevis Heritage Project was created out of that experience.

Aims of the Project

The Nevis Heritage Project aims:

- * to investigate the prehistoric and historic physical and social landscapes of Nevis as a sample of human history in the the Lesser Antilles of the Eastern Caribbean prior to the destruction of that history by natural and human agencies
- * to disseminate information about the heritage of Nevis (and St. Kitts) through a variety of publications and other media such as radio, television, exhibitions, internet
- * to train undergraduate and postgraduate students of history and archaeology in the methods needed to research the heritage of this island, and
- * to involve Nevisian school children, teachers, citizens and visitors in exploring the heritage of Nevis.

Goals of the Project

The goals of the Nevis Heritage Project are:

- * to raise awareness of the remarkable prehistory and history of this tiny island amongst not only the citizens of the Federation of St. Kitts-Nevis but also archaeologists and historians around the world
- * to provide an impetus to make Nevis heritage a significant factor in tourism revenue
- * to encourage government to improve heritage legislation and respect for the past as part of the future prosperity of the islands
- * to help train the next generation of Caribbean archaeologists and heritage managers, and
- * to begin the process of establishing a community heritage officer for Nevis.

Interim Report

This is the first interim report of the Nevis Heritage Project. It provides a detailed summary of the discoveries, and current interpretation of those discoveries, resulting from the feasibility studies in 1999 and fieldwork in 2000.

CONTENTS

	Page
<i>Acknowledgements</i>	1
<i>Introduction</i>	2
THEME ONE: PREHISTORIC SETTLEMENT AND SOCIAL ORGANISATION	7
Preliminary investigations	7
Introduction	7
Prior research on Nevis	8
Settlement pattern, demography and ceramic chronology	10
Investigation of Hickmans	11
GE-5	13
Test excavations	13
Surface collections	19
Discussion	19
Pottery assessment	21
Economic and environmental programme	33
Lithics analysis	33
GE-6	37
Lithics analysis	38
GE-8	39
Discussion	39
References	41
Catalogue of illustrated ceramics	43
 THEME TWO: COLONIAL FORTIFICATIONS	 45
Old Road Fort, Cotton Tree Fort & Dukes Sconce/ Abbott/ Cole Point Forts: Fieldwork 2000	45
Background to the colonial fortifications	45
Sites targeted for fieldwork in May 2000	45
The historical background	48
Archaeological techniques	50
Preliminary results of May 2000 fieldwork	51
Old Road/ Katherines Fort (OLR00)	51
Cotton Tree/St Thomas Fort (CT00)	58
Dukes Sconce & Abbotts/Coles Point Fort (AB00)	59
Summary of May 2000 fieldwork	72
References	73
 THEME THREE: THE COLONIAL LANDSCAPE – URBAN AND RURAL COMMUNITIES	 74
Introduction	74
Excavations on the Global Dominion site in Charlestown	74

The Mountravers Project	77
Field survey	79
Building survey	79
Education	79
References	86
Acknowledgements	86
THEME FOUR: CHANNEL 4 "TIME TEAM" ARTEFACTS	87
References	89
THEME FIVE: PLAIN LANGUAGE RESOURCES AND ACCESSIBILITY TO NEVIS HERITAGE	90
Publication Responsibilities	91

ILLUSTRATIONS

Figure No.	Page
1.1 Map of the islands of the Caribbean	7
1.2 Map of the Lesser Antilles	8
1.3 Map of Nevis showing the location of archaeological sites surveyed by Wilson	9
1.4 Plan of Hickman's site complex (GE-5, GE-6 & GE-8)	12
1.5 Testpit 1	15
1.6 Testpit 2	16
1.7 Testpit 3, 4 & 5	17
1.8 Surface collection of materials from Area A	20
1.9 Pottery forms – WR series (after Wilson 1989 Fig. 1.6)	23
1.10 Pottery forms	24
1.11 Pottery forms	25
1.12 Pottery forms	26
1.13 cumulative frequencies of vessel wall thickness for gridded squares and testpit assemblages	31
 2.1 Governor Johnson's plans of Old Road, Cotton Tree and Abbott's Forts, 1705	 49
2.2 Site plan of Old Road onshore building	52
2.3 Interior elevations of walls 102 and 101	53
2.4 Exterior elevations of walls 101 and 102	53
2.5 N-S and E-W sections across Old Road onshore building	54
2.6 Underwater site plan	56
2.7 Detail of masonry section showing wall angle of underwater Gun platform at Old Road fort	57
2.8 Site plan of Cotton Tree fort	59
2.9 Elevation and plan of masonry block at Cotton Tree Fort	59
2.10 Plan of earthworks and buildings below Cotton Ground	60
2.11 Plan showing loss of cliff between 1984 and May 2000 below Cotton Ground	60
2.12 Plan of Building A	63
2.13 Trench 1 sections, in Building A	64
2.14 Trench 2 sections in Building A	66
2.15 Cliff sections to the west of Building A	66
2.16 Plan of Buildings B and C	69
2.17 Cliff section of Buildings B and C	70
 3.1 The Global Dominion site, Main Street, Charlestown, excavations 2000, interim summary and composite plan showing walls, postholes and other major features	 75
3.2 Mountravers Estate House, Nevis, plan of the ground floor,	80
3.3 The Slave Village at Mountravers, survey	83
3.4 The Hermitage, Nevis, earthfast buildings of the seventeenth century, plan of ground floor	85
 Table No.	
1.1 Stratigraphic interpretations by excavated units	18
1.2 Quantification of pottery assemblage sample from gridded squares	27

1.3	Quantification of pottery assemblage from testpits 1-3	28
1.4	Quantification of rim types from testpits by layer and context	30
1.5	Cumulative frequencies of vessel wall thickness for gridded squares and testpit assemblages	31
1.6	Cumulative percentage frequencies of vessel wall thickness for testpits	
1.7	Analysis of excavated fish bone from GE-5	35
2.1	Finds from Building A	67
Plate No.		
1.1	View of GE-5 from the west	14
1.2	Surface scatter of pottery and shell midden on GE-5	14
2.1	Old Road gun platform, May 1999	56
2.2	Earthwork (EL) 1, looking North	61
2.3	Cannon fragment recovered from the vicinity of Building A	67
2.4	Building B	68
2.5	Building C	70
3.1	Excavations on the Global Dominion site, July 2000 [5/31]	76
3.2	Global Dominion site, Delft plate, probably 1690s, from pit 135	76
3.3	Global Dominion site, glass wine bottle, late seventeenth or early eighteenth century	78
3.4	Global Dominion site, Manilla, from drain 184	78
3.5	Bridge south of Mountravers (with Adheem Malik and Edward Herbert) [5/18]	81
3.6	The Hermitage, double pegged post, chamfer and stops probably of the seventeenth-century [4/6]	81
3.7	Mountravers, teaching surveying skills [4/12]	84
3.8	Global Dominion site, school visit [6/18]	84
4.1	Analysis of 'Time Team' finds by David Barker, assisted by Sue Nelson (undergraduate, University of Southampton)	88
5.1	Children from Gingerland participating in the gridded square surface collection at Hickman's prehistoric site (Theme 1)	90

THEME ONE

PREHISTORIC SETTLEMENT AND SOCIAL ORGANISATION

Preliminary Investigations

Andrew Crosby

Introduction

This paper reports on the results of a preliminary season of research on the early settlement history of Nevis, located within the Leeward Islands in the Eastern Caribbean (Figs. 1.1 and 1.2).

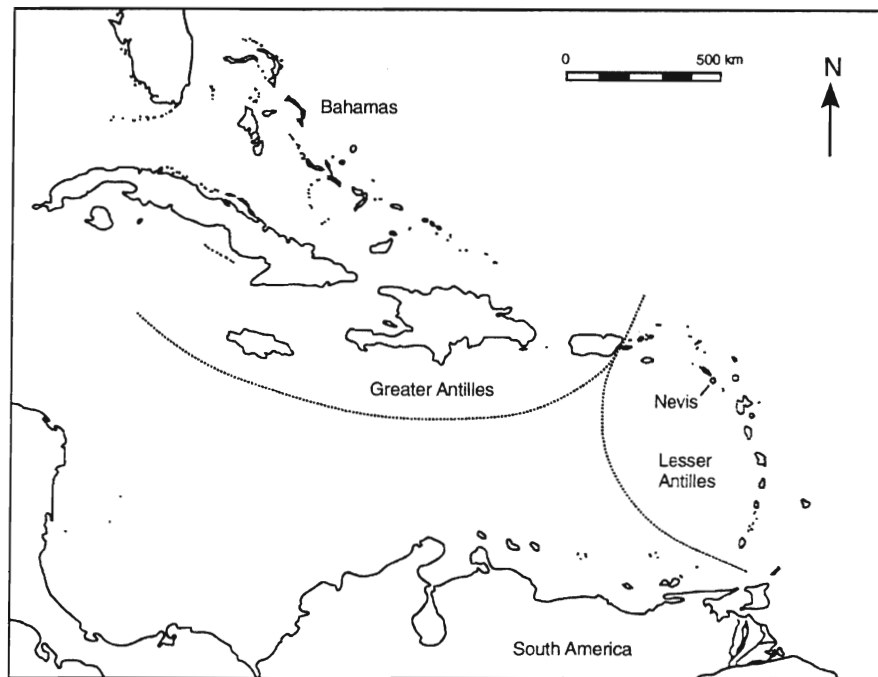


Fig. 1.1 Map of the islands of the Caribbean

It builds upon research conducted into the settlement history of Nevis by Professor S. M. Wilson who between 1984 and 1986 conducted a settlement survey of the island (Wilson 1989) and contributes toward a growing corpus of archaeological fieldwork conducted in the Leeward Islands (Hoffman 1963; Allaire 1974; Figuerdo 1975; Rouse 1976; Goodwin 1979; Versteeg et al 1985, 1986; Versteeg & Schinkel 1992; Versteeg, Schinkel & Wilson 1993; Hoffman & Hoogland 1991; Watters 1994; Petersen 1996).

While the preliminary investigations sampled sites from a range of locations around the island, the principal focus—that reported on here—was on a complex of three sites located on the Windward coast at Hickmans. This complex of sites spans the entire period of human occupation on Nevis and will be the subject of a major research project commencing in 2001.

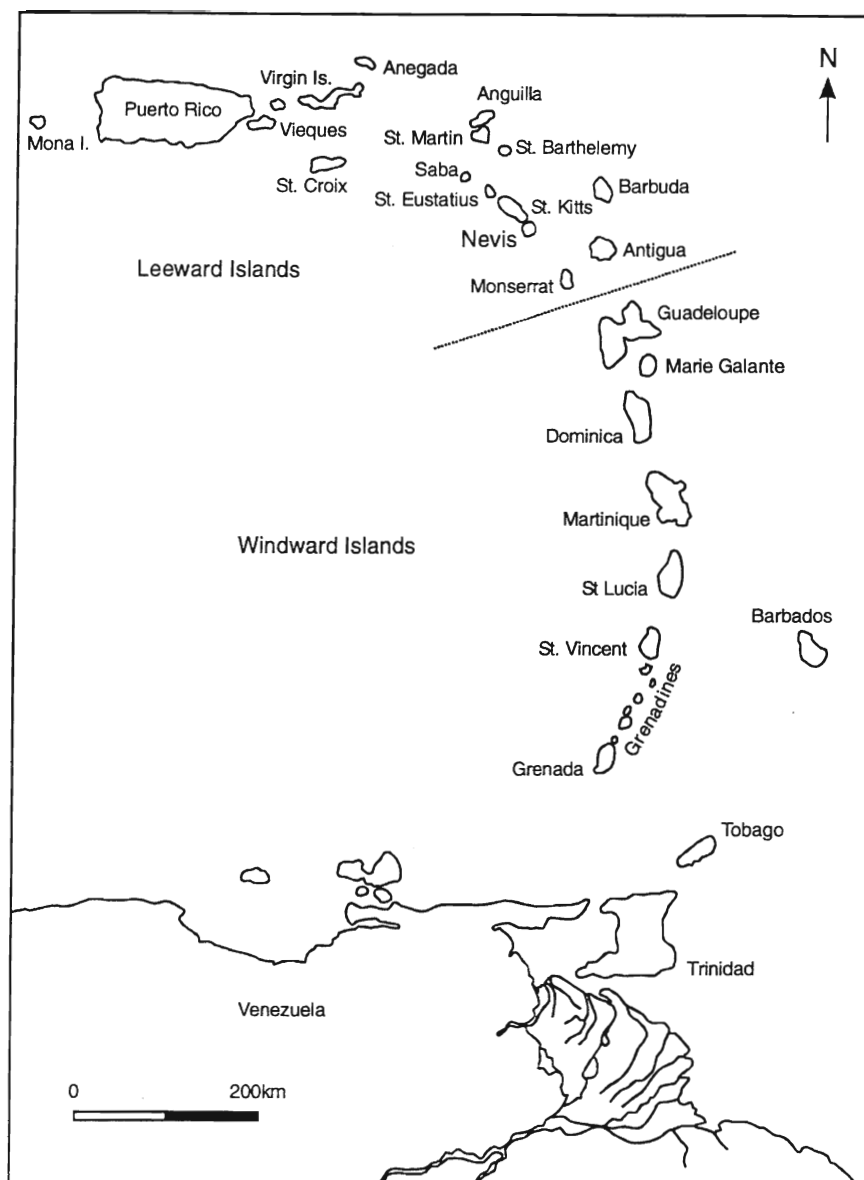


Fig. 1.2 Map of the Lesser Antilles

Prior research on Nevis

Wilson's analysis of ceramic and faunal materials collected during his ground survey and test excavations indicate a three-phase occupation sequence for the island that lays the foundations for all future research. This sequence emulates a reasonably well understood shift—common to many Caribbean islands—from an early aceramic culture primarily exploiting coastal and shallow reef resources to later ceramic cultures practising horticultural economies:

Period 1	Aceramic	c.600 BC	2 sites
Period 2	Saladoid ceramics	c.300 BC-AD 600	2 sites
Period 3	Ostionoid ceramics	AD 600-?1620	17 sites

Wilson located a total of 21 sites, all in coastal locations with a strong apparent preference for the windward, east coast (Fig. 1.3).

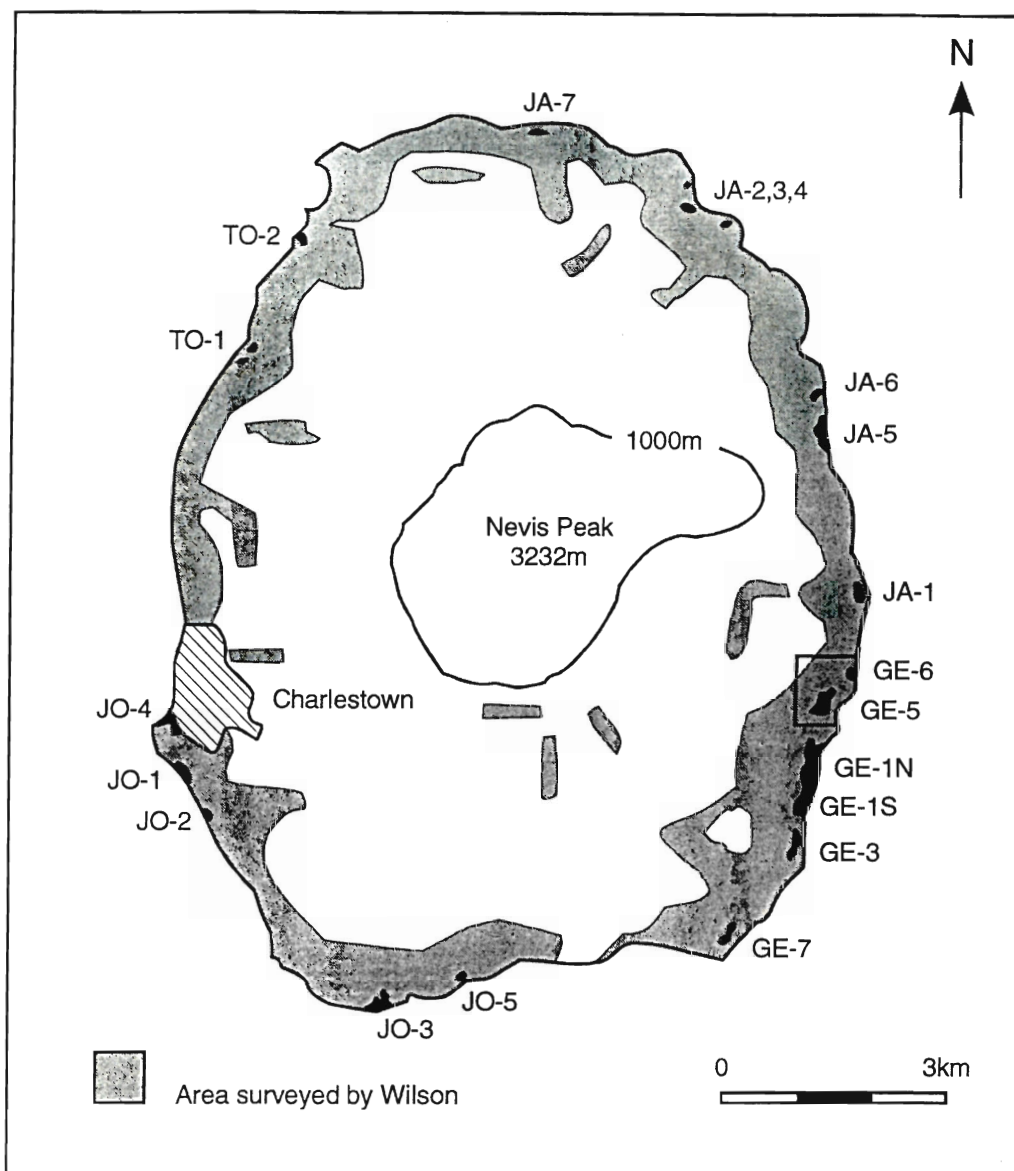


Fig. 1.3 Map of Nevis showing the location of archaeological sites surveyed by Wilson

According to Wilson's survey results, only two small sites covering a total area of 520 square metres represent the aceramic period on Nevis. Both sites are shell middens with scatters of chert and conch-shell tools. One (GE-6) is located on the eroding coastal edge at Hickmans Estate and yielded a radiocarbon date of 605 \pm 290 BC (based on shell) from one of ten test excavations excavated by Wilson across the site (Wilson 1989: 435). Hickmans is also the location of the largest of the two Saladoid period sites (GE-5) on the island.

Both Saladoid sites contained a few sherds with Zone Incised Crosshatched (ZIC) decoration which are found throughout the period of Saladoid occupation in the Caribbean from around 300 BC to midway through the first millennium AD. Situated some 100m inland from the aceramic site, Wilson describes the Hickmans Saladoid site as covering about 8800 sq. m in surface area; the second largest site on the island (1989:435). He excavated ten 1 sq. m test pits which contained shell midden deposits ranging from 40 to 90 cm in depth and yielded ceramics, chert tools, a single polished greenstone celt and several drilled and polished granite beads. One test pit also contained a human pit burial and two grave items: a bat's head adorno (ceramic ornament) and a small oval dish.

The third period on Nevis—represented by Ostionoid ceramics—is represented in Wilson's survey data by 17 sites covering by far the largest total area: 98,375 square metres. They

yielded similar materials, dominated by ceramics and shell midden, and are located in similar coastal locations heavily concentrated along Nevis' windward coast. Wilson recovered a single radiocarbon date of AD 745 +/- 135 (based on carbonised wood) from test excavations at the site of Indian Castle and surmised that the Ostionoid sites may have been occupied from around 600 A.D. up until European Contact during the late 16th century (Wilson 1989:436-7).

Settlement pattern, demography and ceramic chronology

Wilson's survey results raise a number of interesting questions concerning the geographic and chronological distribution of settlements on the island and the nature of demographic and cultural change. Many of these concern the apparent preference for settlement on the windward coast which Wilson admits may be at least partly due to taphonomic problems along the relatively flood-prone and unstable sandy eastern coast. Indeed, fairly casual inspection of a section of the western coastline revealed three new Ostionoid period sites previously unrecorded by Wilson. These new sites will be reported on after the completion of a more systematic survey in the course of later phases of the Nevis Heritage Project.

Apparently these new sites had been covered with sand at the time of Wilson's survey. They fill a large gap north of Charlestown, between JO-4 and TO-1 on Fig. 1.3, although each of these sites is relatively small and does not affect Wilson's wider point that the windward, eastern coast has been both more extensively and more expansively settled than the leeward coast prior to European contact.

The remainder of Wilson's analysis concern the rapid apparent population growth indicated by the dramatic increase in the number of sites and the total area of settlement from the Saladoid to the Ostionoid periods. He employs several possible arguments to explain how population growth may have accelerated, moderated and stabilised at various times during the Saladoid and later Ostionoid occupations based on biological models of population growth for colonising populations (Wilson 1989: 444-445). The underlying assumptions of his analysis are chiefly based on ceramic distinctions that allow him to separate out the survey data for the two ceramic periods, and on settlement size reconstructions based on the surveyed areas of sites. Critical to both of these are the roles of the two Hickmans sites.

Wilson used the ceramic material he recovered from Hickmans to construct a type series of Saladoid ceramics, which he contrasted with seven Ostionoid assemblages from Nevis. This indicated a marked and statistically significant difference between the Saladoid and Ostionoid rims which seems to be emulated by a difference in the relative thickness of body sherds, the Hickmans ceramics being generally thinner and more finely made than the Ostionoid ceramics.

Wilson's analysis, however, did not produce such a clear distinction in body and surface treatments. Aside from the few ZIC sherds found at Hickmans, all of the assemblages of both ceramic types contained slipped, red painted or untreated sandy sherds, some with incised, white painted or scratched designs. Moreover, in a later paper (Versteeg, Schinkel and Wilson 1993) Wilson revised his opinion of the Hickmans ceramics to include a post-Saladoid component in the upper 40cm of the midden deposit. There is no indication in his published papers to indicate which component his area calculations refer to.

The capacity to reconstruct settlement sizes from Hickmans, if it is a multi-component site, therefore must be questioned. A preliminary visit to the Hickmans Saladoid site in May 1999 indicated that Wilson might have seriously underestimated the area of the site. This preliminary visit also indicated tremendous potential of the Hickmans sites—both aceramic and Saladoid/Ostionoid—to reconstruct the nature of the cultural transformations occurring between all three phases of occupation on the island. Moreover, it indicated equal potential

to reconstruct environmental changes occurring during the settlement history of the island from an analysis of the rich faunal remains contained on each site and from a complex history of potential landform changes indicated by a complex stratigraphy of flood and siltation events in adjacent ghut sections. The latter indicated particular potential to reconstruct changes occurring due to the historic use of the area for sugar cultivation, evidence for which is found over the site.

Wilson's arguments assume a disjuncture between the original aceramic population, who he argues were non-horticultural exploiters of coastal and shallow-reef resources, and the later Saladoid and Ostionoid horticulturists. They rely on changes in both economic and sociocultural factors to account for the varying rates of population increase during the Saladoid and Ostionoid occupations. And they assume that Nevis comprised a relatively closed system whereby the island boundary approximated the environmental limits on population growth and that in- and out-migration were insignificant factors.

Investigations of Hickmans

The site is little changed from that described by Wilson in 1989. It comprises a flattened apron of land, approximately 400m wide, where a narrow coastal plain has formed between the lower slopes of Nevis' central volcanic cone and the sea (Fig. 1.4). It is cut by two deep erosion ghauts and along the coastal edge forms a 3m high sea cliff above a rocky shore exposed to the prevailing southeasterly winds. There is no permanent water source, although the mouth of the relatively shallow northern ghut is reputed to be a freshwater spring, and the much deeper southern ghut may have formed along the course of a pre-existing watercourse. The site lies under short pasture and patches of thick scrub and yucca hedging and is currently grazed by goats, sheep and wild donkeys, with a series of goat pens situated on the northwestern part of the site. Remnant sections of drystone walling, stone rubble heaps and, stone structures, a well and foundations of a stone bridge across the northern ghut indicate the use of the area as a sugar estate, crossed by a series of roads, during the post-contact period. The site is heavily eroded in places along the coastal edge and along the edges of the ghauts, although most of the area appears well preserved beneath the turf and vegetation cover.

While the initial fieldwork conducted on the site addresses some of the questions posed by Wilson's survey and analysis, it was primarily oriented towards determining a strategy for investigating the site over a longer period. Key objectives were to accurately delimit the surface extent of cultural materials of all components of the site, to excavate a testpit profile of the underlying stratigraphy across the site, to collect sufficient ceramic materials to allow a preliminary analysis of the major ceramic characteristics represented on the site, and to collect sufficient lithic and faunal material to allow a preliminary characterisation of the major resources exploited at the site. Secondary objectives were to assess the potential for reconstructing spatial patterns and structures on the site and to assess the potential for characterising environmental and landform changes for the duration of the site's occupation.

The site falls into three spatially discrete components. Two of these—GE-5 and GE-6—are the Saladoid and aceramic sites previously recorded by Wilson. The third site—GE9—is a previously unrecorded aceramic site located immediately inland of GE5. The fieldwork was conducted by Andrew Crosby, Elaine Morris and Jen Heathcote (University of Southampton) and Peter Bellamy (Terrain Archaeology) over 6 days in May 2000.

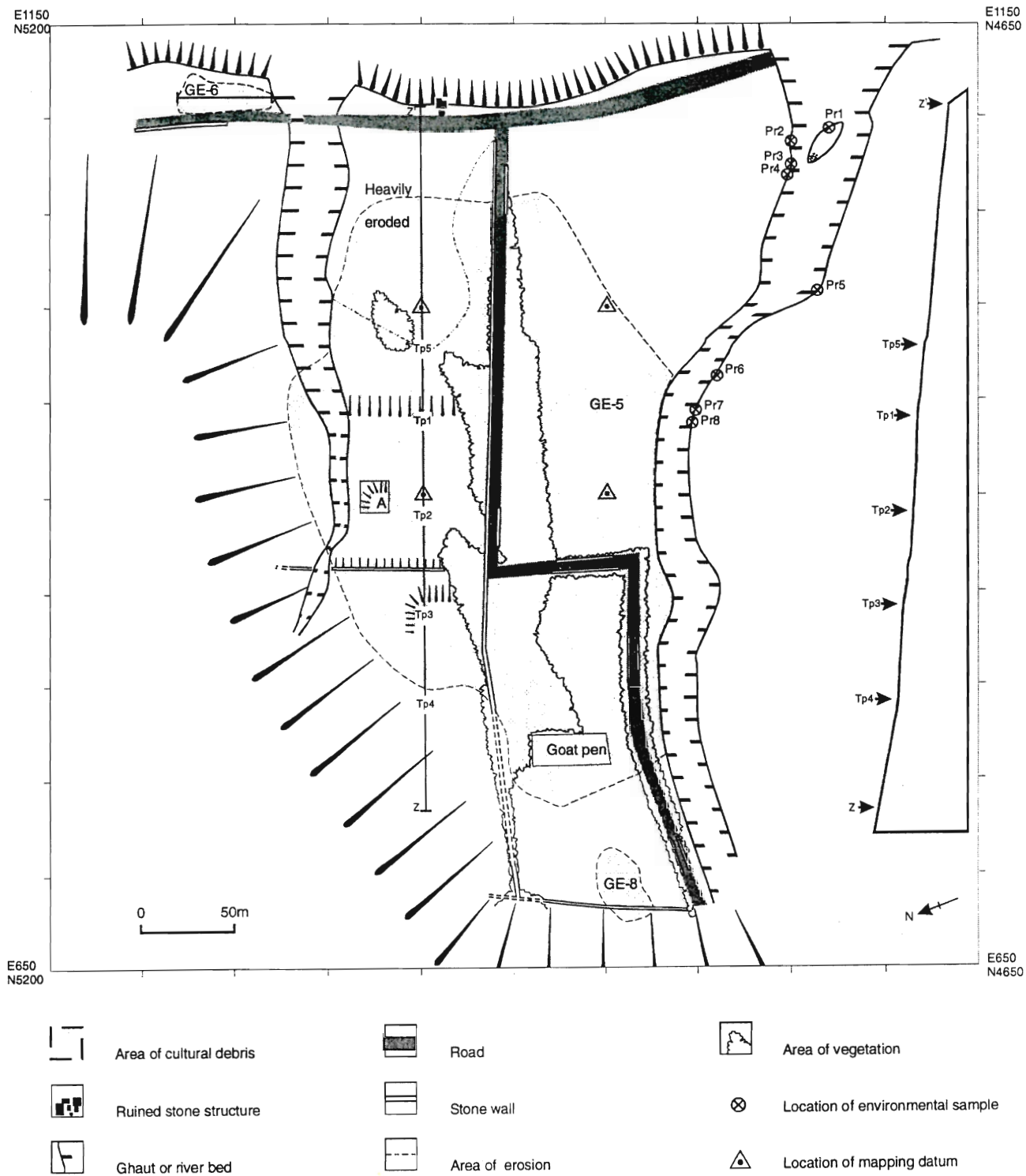


Fig. 1.4 Plan of Hickman's site complex (GE-5, GE-6 & GE-8)

GE-5

The north-eastern edge of this component of the site lies about 100m from GE-6 and 50m back from the sea cliff and extends inland across relatively flat land to the base of a long gradient forming the footslopes of the island's central cone (Plate 1.1). It is primarily confined to the area between the two ghauts, although it extends slightly to the north of the northern ghaut, which almost certainly formed after the site was abandoned.

The surface scatter of cultural material comprises mostly pottery, which is thickly spread over parts of the site as well as relatively sparse shell midden and worked chert or flint flakes (Plate 1.2). In addition a number of ceramic adornments (modelled figurines), quern-stones and stone pestles were noted, some of which were recovered for analysis. The relative density of cultural material over the site is quite variable which may partly be the result of the subsequent use of the area for sugar cultivation and the effects of differential erosion.

The spread of cultural material extends for over 200m along the coast and just over 300m inland. Although the quantity of cultural debris visible on the surface drops off around the edges of the site, the minimum area of concentrated debris in the central part of the site exceeds 30,000 square metres and the full extent of the spread of cultural material nears 50,000 square metres. The site dimensions therefore grossly exceed Wilson's length and width dimensions of 100m by 80m and his area estimate of 8800 square metres.

In addition to the surface spread of cultural material the site is marked by a series of earthwork and landscaped features. The great majority of these are associated with the use of the area as a sugar growing estate during the post-contact period. This is marked by a series of low, drystone walls, which mark an east-west cart-road, 5-7m wide, that doglegs across the site to join a similar coastal road running perpendicularly between the site and the sea cliff. Additional walls mark a series of flow lynchets and field boundaries which have resulted in the compartmentalisation of the site and the surrounding area into a series of broad, low terraces with characteristically flat though gently sloping surfaces marked in places by field-clearance rubble heaps and a modern goat pen.

The only obvious indication of any earlier surviving earthworks is a series of very low mounds located as a closely spaced cluster near the northern margin of the site (in the vicinity of Area A). Each of these is approximately 10m in diameter and raised approximately 5cm above the surrounding sugar terrace. Each is marked by a particularly dense covering of surface cultural material including pottery, shell midden and quern-stones. Assuming they have been truncated by the later sugar cultivations they may once have stood considerably higher, indicating possible refuse heaps or structural platforms.

The site was mapped by electronic transit onto a grid formed by four permanent datums positioned centrally on the site (Fig. 1.4). Only major features were mapped, including the extent of cultural deposit (pottery, flaked chert or midden), major landscape features and modern historical structures, roads and field boundaries. The mapping of internal features within the site such as the raised mounds and variations in the distribution of cultural material was hampered by dense vegetation and will be completed during the next field season scheduled for 2001.

Test Excavations

Five 1 square metre testpits were excavated at 50m intervals along a transect oriented east-west across the northern part of the site at 5000m N. The testpits were excavated by stratigraphic layers and, where appropriate, by 10cm spits within layers. All excavated material from three of the testpits was dry-screened using 2.5mm mesh size and all ceramic,



Plate 1.1 View of GE-5 from the west



Plate 1.2 Surface scatter of pottery and shell midden on GE-5

faunal and worked lithic materials were retained. In addition 10 litre bulk soil samples were removed from all major contexts and wet sieved for charcoal and environmental residues.

The test excavations revealed a basic four-component stratigraphy over most of the site (Figs.1.5-1.7, Table 1.1).

Layer 4 This comprises a natural sandy clay base across the site, which varies from relatively sandy in Testpits 1 and 5 to relatively clayey and rubbly in Testpits 2 and 4. The nature of the underlying base could not be determined in Testpit 3.

Layer 3 Superimposed over the natural base in Testpits 1 and 3 is a thick sandy midden deposit ranging from 32-43cm thick. It is light grey/brown in colour and highly friable. The Testpit 3 deposit was particularly rich both in terms of numbers of sherds and the volume of large, uncrushed fragments of shell and animal bone. Although indicating a considerable period of occupation, there was no evidence of stratigraphic layering or features within it other than a slight colour transition between an upper and lower component (C and D).

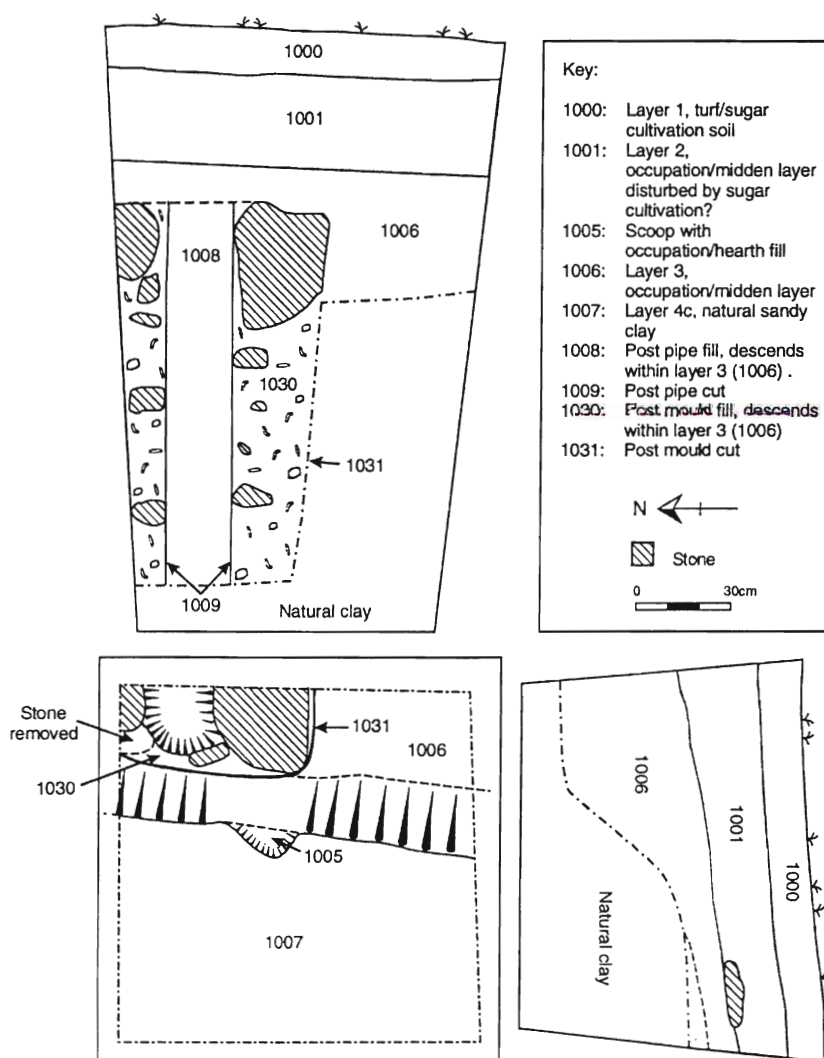


Fig. 1.5 Testpit 1

The Testpit 1 deposit however provided stronger evidence of time depth and possible phasing within the Layer 3 deposit. The deposit lay within a north-south oriented cut feature

forming a 20-25cm high vertical bank across the width of the testpit (Fig. 1.5). This may represent the terracing of the site prior to or during its initial occupation. A similar possible terrace is indicated by a 2.25m height difference between the base of the cultural deposits in Testpits 2 and 3.

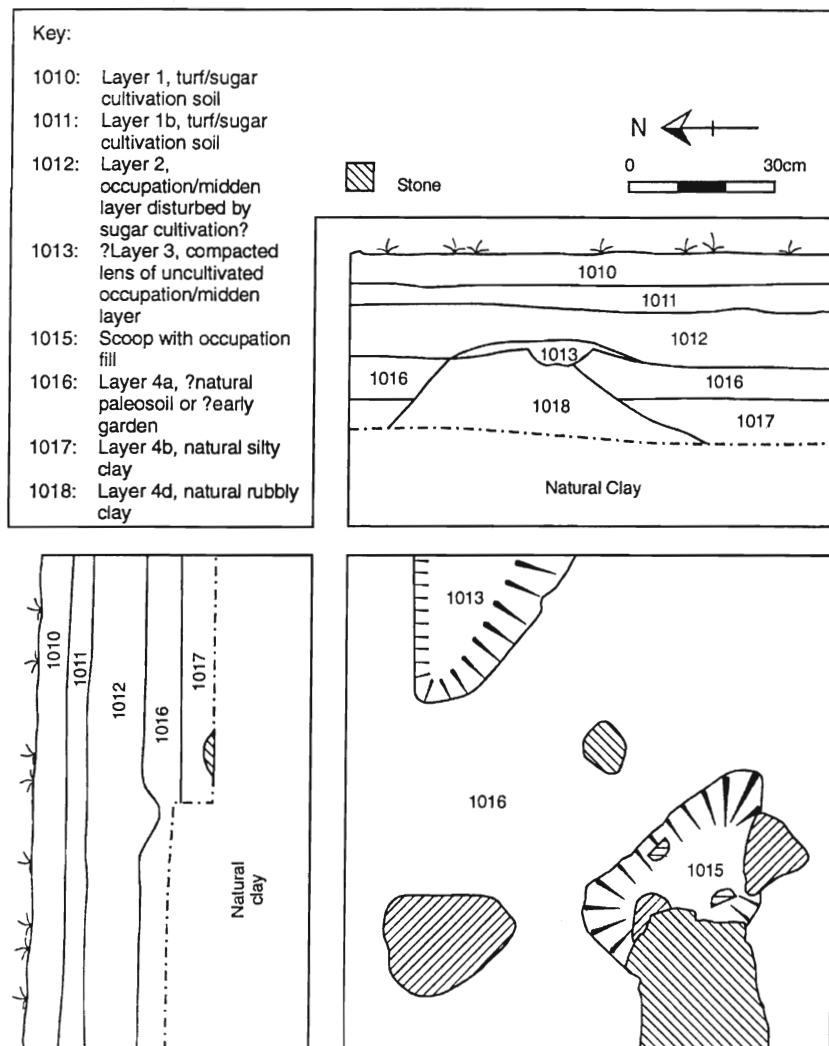
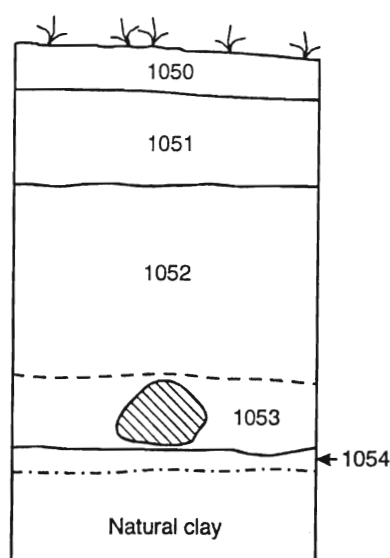


Fig. 1.6 Testpit 2

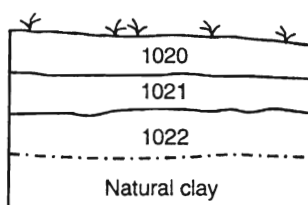
Alternatively, the cut feature in Testpit 1 may be a bedding trench associated with a substantial post-hole that descends against its western edge. This feature indicates a 16.5cm wide post that had been sunk to a depth of 95cm within a 50-60cm wide post hole and packed around the base with midden-bearing fill and around the top with a series of large stones. The post had been removed and the hole infilled within the Layer 3 occupation, again indicating a degree of longevity and site modification within that occupation period. Similar postholes have been noted from excavations on Eustatius where post-hole plans of similar dimensions were recovered for a variety of substantial circular and turtle shaped structures (Versteeg & Schinkel 1992: 149-150).

Layer 2 This deposit forms a uniform dark brown, humic, soily deposit in all testpits except testpit 4, sealing Layer 3 in Testpits 1 and 3. It is usually found at a depth of approximately 14cm below the surface and ranges in thickness from 12-16cm. It contains considerable quantities of pottery and shell and animal bone, although the midden is not so dense as for Layer 3. It also contained evidence of shallow posthole and two scoop features within it in Testpits 1 and 2, all of which clearly post-dated the Layer 3 deposit below. One of the scoops

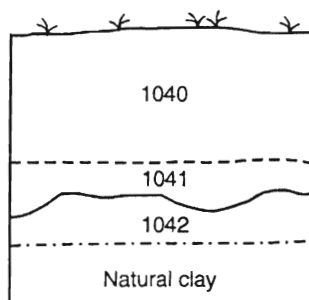
in Testpit 1 contained a concentration of ash and charcoal in the centre, indicating a likely hearth or fire-pit.



Testpit 3
South facing profile



Testpit 4
South facing profile



Testpit 5
East facing profile

Key:

- 1020: Layer 1, turf/sugar cultivation soil
- 1021: Layer 4a, ?natural paleosoil
- 1022: Layer 4b, natural silty clay
- 1040: Layer 2, occupation/midden layer disturbed by sugar cultivation?
- 1041: ?Layer 2 or ?layer 4a: gardened midden or disturbed natural paleosoil
- 1042: Layer 4c, Natural clayey ash/silt
- 1050: Layer 1, turf/sugar cultivation soil
- 1051: Layer 2, occupation/midden layer disturbed by sugar cultivation?
- 1052: Layer 3, occupation/midden layer
- 1054: Compacted natural



Stone

0

30cm



Fig. 1.7 Testpits 3, 4 & 5

Some of these Layer 2 features, however, appear to be truncated above a depth of around 34cm below the surface, above which the deposit was uniformly homogenous. This raises the possibility that this layer may in part be a product of sugar cultivation during the post-contact period, although the number of sherds lying flat and the relatively uncrushed nature of much of the shell midden suggested otherwise.

Unit	Spit/feature	Depth below surface	Context	Integrity	Notes	Stratigraphic interpretation
TP1	Spit 1	0-10cm	1000	Good		Layer 1: turf/recent siltation
TP1	Spit 2/1	10-14cm	1000	Fair	Interfaces with 1001	"
TP1	Spit 2/2	14-20cm	1001	Fair	Interfaces with 1000	Layer 2: occupation/midden layer disturbed by sugar cultivation
TP1	Spit 3	20-30cm	1001	Good		"
TP1	Spit 4	30-40cm	1006	Fair	Interfaces 1001; cut by 1003/1005	Layer 3: occupation/midden layer
TP1	Spit 5	40-50cm	1006	Poor	Includes top of 1008/1030	"
TP1	Spit 6	50-60	1006	Good	May include 1030	"
TP1	Spit 7	60-63	1006	Good		"
TP1	Base of excavation	33/67cm -	1007	Good		Layer 4c: Natural sandy clay
TP1	Posthole 1	34-44cm	1002	Good	Fill may be same as 1001	Posthole fill: descends from base of Layer 2 (1001)
TP1	Scoop 1	34-44cm	1004	Good		Ashy fire scoop: descends from base of Layer 2 (1001)
TP1	Posthole 2	46-141cm	1008	Good	Fill may be same as 1006	Postpipe fill: descends within Layer 3 (1006)
TP1	Posthole 2	46-141cm	1030	Good		Postmould fill: descends within Layer 3 (1006)
TP2	Spit 1/1	0-7cm	1010	Fair	Interfaces with 1011	Layer 1: turf/recent siltation
TP2	Spit 1/2	7-10cm	1011	Fair	Interfaces with 1010	Layer 1b: turf/recent siltation
TP2	Spit 2/1	10-13cm	1011	Fair	Interfaces with 1012	"
TP2	Spit 2/2	13-20cm	1012	Fair	Interfaces with 1011	Layer 2: occupation/midden layer disturbed by sugar cultivation
TP2	Spit 3/1	20-25cm	1012	Good	Interfaces with 1013	"
TP2	Lens within spit 3/1	18-23cm	1013	Fair	Interfaces with 1012	?Layer 3: compacted lens of uncultivated occupation/midden layer
TP2	Spit 3/2	25-30cm	1016	Fair	Interfaces with 1012/1013	Layer 4a: ?Natural paleosoil or ?early garden soil
TP2	Spit 4	30cm -	1017	Good		Layer 4b: Natural silty clay
TP2		20cm -	1018	Good	Protrudes into Spits 3 and 4	Layer 4d: natural rubbly clay
TP2	Scoop 1	25-40cm	1014	Good	Fill may be same as 1012	Irregular scoop: descends from base of Layer 2 (1011)
TP3	Layer A	0-7cm	1050	Good	Interfaces with 1051	Layer 1: turf/recent siltation
TP3	Layer B	7-23cm	1051	Good		Layer 2: occupation/midden layer disturbed by sugar cultivation
TP3	Layer C	23-54cm	1052	Good	Interfaces with 1053	Layer 3: occupation/midden layer
TP3	Layer D	54-66cm	1053	Good	Interfaces with 1052	Layer 3: occupation/midden layer
TP4	Spit 1/1	0-7cm	1020	Good	Interfaces with 1021	Layer 1: turf/recent siltation
TP4	Spit 1/2	7-10cm	1021	Good	Interfaces with 1020	?Layer 4a: ?Natural paleosoil
TP4	Spit 2/1	10-14cm	1021	Good		"
TP4	Spit 2/2	13cm -	1022	Good		Layer 4b: Natural silty clay
TP5		0-21cm	1040	Good	Truncated due to erosion	Layer 2: occupation/midden layer disturbed by sugar cultivation
TP5		21-26cm	1041	Good		?Layer 2 or ?Layer 4a: gardened midden or disturbed natural paleosoil
TP5		26cm -	1042	Good		Layer 4c: Natural sandy clay

Table 1.1: Stratigraphic interpretations by excavated units

Layer 1 During the post contact period of sugar cultivation the site was re-landscaped into a system of sugar fields separated by earthwork banks and stone walled field boundaries. Layer 1 is a relatively sterile, hard silty deposit that appears to represent a 7-14cm thick garden soil into which moderate quantities of pottery have been incorporated from the underlying midden deposits in Testpits 1, 2 and 3. Significantly, the mean sherd weight from this layer is half that of Layers 2 and 3 (see below) indicating disturbance by gardening, and the small quantities of shell recovered from this deposit were severely crushed. Although the deposit appears thin for a garden soil, it is likely that much of the soil would have been lost to erosion following the abandonment of cultivations.

Surface Collection

A surface collection was made of pottery and worked stone from a slight, circular mound of eroding pottery, shell and stone located near the northern margin of GE-5, approximately 15m north of the testpit transect (Figs. 1.4). This is the northernmost of the group of four mounds clustered in this location. It spills slightly downslope to the northeast into the shallow gully that crosses the northern part of the site. The mound was gridded into 1m squares over an area of 15m by 17m. A detailed contour survey was made of this area and a complete surface collection was made of all ceramic and worked stone materials from the southern half (Fig. 1.8).

The surface collection yielded a total of 7,331 sherds of pottery and 113 pieces of worked stone. The great bulk of the stone was chert flakes and cores but also included a number of quern stone fragments (see below). The pottery appears characteristically different in many respects to that recovered from the testpits. The details and significance of this analysis are considered below.

Discussion

Both the stratigraphic evidence from the test excavations and the ceramic analysis confirm Wilson's supposition of Saladoid and probable post-Saladoid components to the Hickmans site. The excavations and survey data indicate a considerable depth of cultural deposit containing material representing the full range of settlement activities: human burials, structures, possible terraces and mounds, hearths, postholes, pottery, a wide range of faunal remains, ground and pecked stone tools, quern-stones, spindle whorls and decorative ceramic adornments.

The excavations suggest at least two phases of occupation sealed beneath and partially disturbed by a more recent sugar cultivation soil. Each of these phases contains inter-cutting structural features of various sorts indicating a complex history of reuse of the site and a considerable time depth of occupation within each. This is partially confirmed by the analysis of the testpit ceramics which hints at ceramic changes throughout the depth of deposit including a slight thinning of sherd widths over time and the loss of a number of complex and unique rim forms—found only in the basal deposits of testpit 3—in favour of increasing percentages of simple, plain rims and griddles.

Curiously, both of the excavated occupation phases appear to resemble characteristically Saladoid ceramic forms and both differ quite markedly from the pottery collected from the nearby mound which was surface collected by gridded squares. This contains characteristically thicker sherds and some vessel forms of a distinctive post-Saladoid nature. These results, while supporting Wilson's assertion of Saladoid and Post-Saladoid components of occupation at Hickmans, raise important and as yet unanswerable questions about the distribution of the different occupation components across the site and the stratigraphic and spatial relationships between them.

The impression available thus far from both the excavated data and a general assessment of the material exposed over the site is that the great bulk of material at GE-5 is of Saladoid derivation, and the post-Saladoid material may be confined to a few areas such as the cluster of mounds at the northern fringe. This may indeed explain why these mounds form such a prominent surface feature, whereas elsewhere the site is remarkably flat and featureless aside from the more recent stone walls, roads and lynchets associated with the post-contact period.

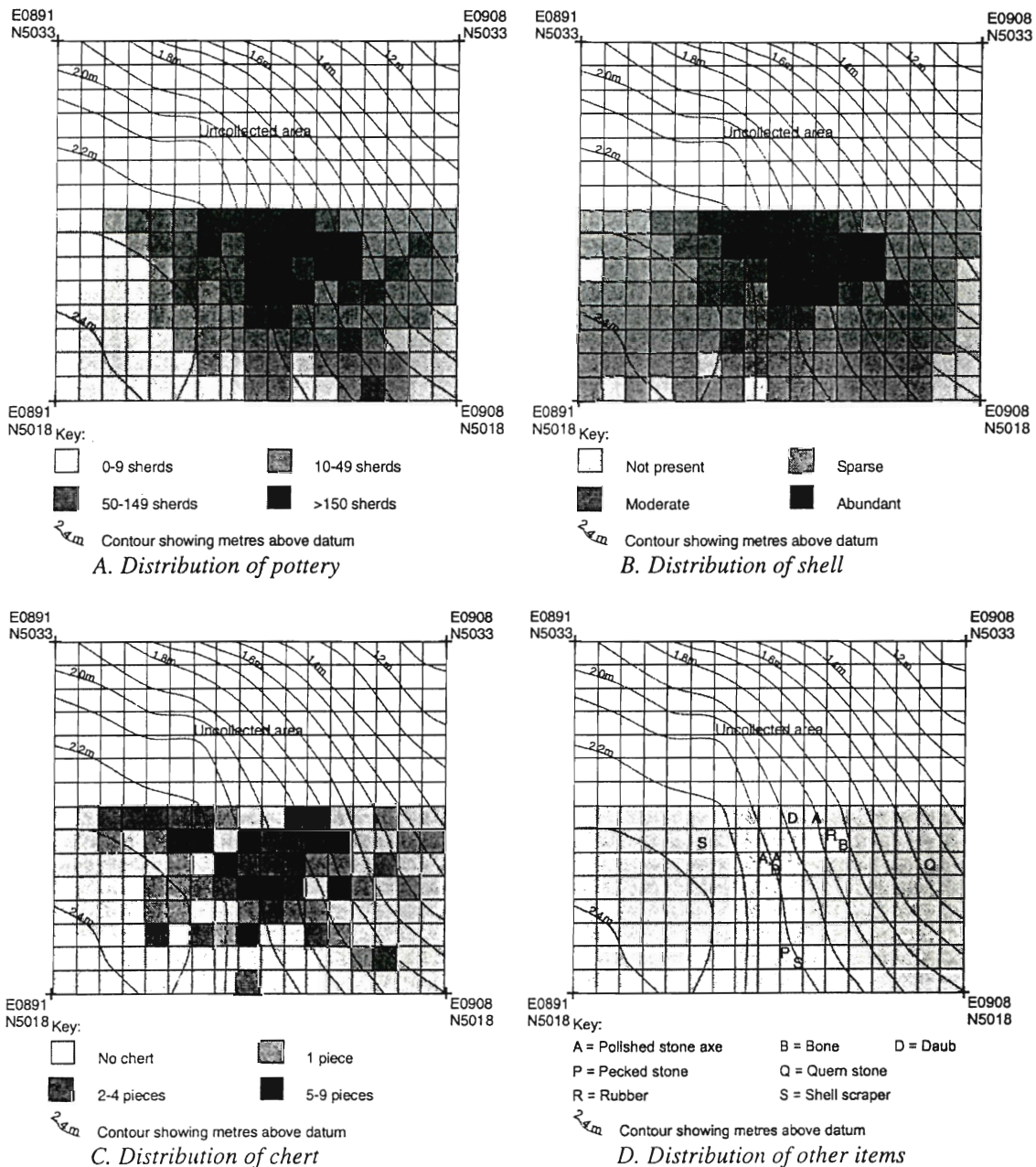


Fig. 1.8 Surface collection of materials from Area A

Only the relatively recent, prominent, and possibly localised post-Saladoid component has withstood the levelling effect of the sugar cultivation.

There is great potential for future surface collections and excavations to tease apart the stratigraphic and spatial relationships of the various components of the site and to explore the variety of structural features indicated by the mounds and the various posthole and hearth features encountered in the testpits. There is also the need in future investigations to explore the southern half of the site which appears equally promising in terms of the quantity and variety of surface cultural remains.

Pottery Assessment

Elaine L. Morris

A total of 7,331 sherds (44,965 grammes) of prehistoric pottery was gathered from 136 one-metre squares of the platform/terrace and 667 sherds (6,842 grammes) were recovered from testpits 1-3 by excavation and sieving through 2.5 mm mesh screen. No pottery was found in testpit 4. A 20.7% sample of the gridded square assemblage (1,521 sherds), selected randomly by square, and all of the testpits pottery were rapidly analysed for this assessment. The pottery from GE-5 at Hickman's had been identified previously as primarily belonging to the Saladoid period broadly dated to about 1000BC-AD600 (Wilson 1989, 430-1, 435-6), with some occupation subsequently being recognised as post-Saladoid material (Versteeg, Schinkel, and Wilson 1993, 156).

Condition of the Material

The pottery from both types of context, grid square and testpit, was in good condition with few split or flaked sherds and burnish visible on the surfaces of nearly all sherds. Numerous sherds from the lower spits in the testpits were partially covered on one or more surfaces, as well as the broken edges, by an off-white, dense solidified deposit which reacts vigorously to dilute hydrochloric acid.

Methodology

The assessment analysis identified and quantified the range of vessel part types in accordance with those presented by Wilson (1989, fig. 1. 6) and by the definition of new types described below. In addition to Wilson's rim types, additional rim forms, bases, shoulder sherds, slip-decorated body sherds and plain, undecorated, unslipped body sherds were defined (see below) and catalogued, creating 362 records for the gridded square sample and 316 records for the testpits pottery. Incised or painted decoration was indicated within a field on the recording form where present. The featured sherd records of distinctive rims, bases, and shoulder sherds can be recognised as representing the maximum number of these vessels; some of these specific records may well be parts of the same vessel but they will not represent more than a single vessel.

The wall thickness of each sherd or group of sherds with similar characteristics, which in the case of those with distinctive forms were recognised as parts of the same vessel, was recorded by 2 mm grade and coded as follows: code 1 = <5 mm thick; code 2 = 5-<7 mm; code 3 = 7-<9 mm; code 4 = 9-<11 mm; code 5 = 11-<13 mm; code 6 = 13-<15 mm; code 7 = 15-<17 mm; code 8 = 17-<19 mm; code 9 = 19-<21 mm; and code 10 = 21-<23 mm. This width of thickness for each code accommodates variation in the walls of handmade pottery and provides a simplified technique for comparing the variability between assemblages using cumulative percentage frequencies. Differences between the vessel wall thickness of Saladoid and Ostionoid (post-Saladoid) pottery had been identified previously (Wilson 1989, 438-9).

The assessment exercise was conducted to: (1) compare the types of forms found on the platform/terrace, from the testpits and from the previous fieldwalking exercises conducted by Wilson at this site and summarized from other prehistoric sites on the island as a first exercise in the development of a detailed chronological sequence for the island, (2) identify variation in vessels present between Layers 2 and 3 of the testpits in order to investigate the strength of variation between the upper part of the midden affected by sugar cultivation and the undisturbed part of the occupation/midden, and (3) compare the variation between the undisturbed occupation/midden layers of the testpit assemblages.

The aims of the assessment analysis were to determine: (1) whether the assemblage from the platform/terrace was similar or different from any of the Layers within the testpits, how different or similar these assemblages were and whether the testpit assemblages were similar to each other, (2) whether it was necessary to conduct a detailed identification and analysis of the pottery by fabric or whether selective sampling and petrological analysis was recommended, and (3) what size of assemblage provides enough sherds with significant characteristics to create a relative chronological sequence, eventually secured within a radiocarbon dating programme. The establishment of a minimum assemblage size is required in order for a reassessment of archived collections to be conducted and for any new sites to be correctly assigned to the sequence. From a management perspective, it was important to determine the length of time and training necessary to do analysis of this order. For example, none of the featured sherds (rims, bases, decorated sherds) was sketched for the archive which could have doubled the amount of analytical time required.

Fabrics

The fabrics or pastes of the pottery from GE-5 were not investigated in detail. The assemblage is gritted with disintegrated acid igneous rock components of quartz, feldspars and hornblende visible using a binocular microscope at 10x power, with one exception. A single sherd from the platform/terrace (but not from a square in the sample analysed for this assessment) was shell-gritted. Nevis is an island composed primarily of dacite (Hutton and Nockolds 1978), and therefore it is expected that the igneous rock bearing fabrics had been made from local resources. This premise will be investigated in detail as part of future research. The shell-bearing fabric is also worthy of further investigation due to the presence of a shell-tempered prehistoric fabric identified in assemblages from St. Kitts (Goodwin 1980, 54, minor paste 6). Examination of thin sectioned samples from the assemblage using a petrological microscope will clarify the low power microscopic identifications for the igneous rock inclusions and determine whether these are likely to be derived from local, Nevisian deposits or from other islands in the Lesser Antillian volcanic chain (Donahue, Watters, and Millspaugh 1990). This will also assess the scope for further technological research to determine whether detailed fabric classification and recording of fabric for each sherd would contribute towards the chronological and functional approaches within the project.

Forms

Figs. 1.9-1.11 present the form type series for this assessment. It consists of nine of the fourteen rim types illustrated by Wilson (WR series) which were identified amongst the GE-5 material (Wilson 1989, fig. 1.6, reproduced here as Fig. 1.9). The series also includes 11 additional rim forms (AR series), three bases (B series), and two types of shoulder sherds (A series) identified amongst the pottery from this new fieldwork (Figs 1.10-1.11). Additional featured items include three adornos, an incised ceramic disc and a spindle whorl, all found on the surface of the site (Fig. 1.12).

Rims

WR1	plain
WR2	griddle (flat circular dishes used to cook manioc cakes)
WR3	platform
WR4	rounded platform
WR6	curved platform
WR7	flared
WR10	outcurved
WR13	flat
WR14	canted plain

- AR15 WR1 rim type with A2 shoulder type (open vessel form)
- AR16 flat platform (folded over or not)
- AR17 internally lobed version of WR1/WR10
- AR18 neckless, ovoid jar (closed vessel form)
- AR19 flanged
- AR20 sharply incurved, plain, rounded (see Versteeg and Schinkel 1992, fig. 33)
- AR21 vertical rounded rim on hemispherical-profile vessel (neutral vessel form)
- AR22 internal, bevel-edged rim (see AR25 below)
- AR23 asymmetrical, "boat-shaped" bowl (Versteeg and Schinkel 1992, fig. 42)
- AR24 WR14 rim type with A2 shoulder type (open vessel form)
- AR25 external, bevel-edged rim (see AR22 above)

Bases

- B1 rounded base profile
- B2 flat base profile
- B3 cylinder base (see Versteeg and Schinkel 1992, 57-8, fig. 37-8)
- B99 central part of flat base sherd profile; common for central parts of griddle bases to be classified as this type

Shoulder sherds

- A2 obtuse-angled shoulder
- A3 rounded shoulder bearing no distinctive inflection

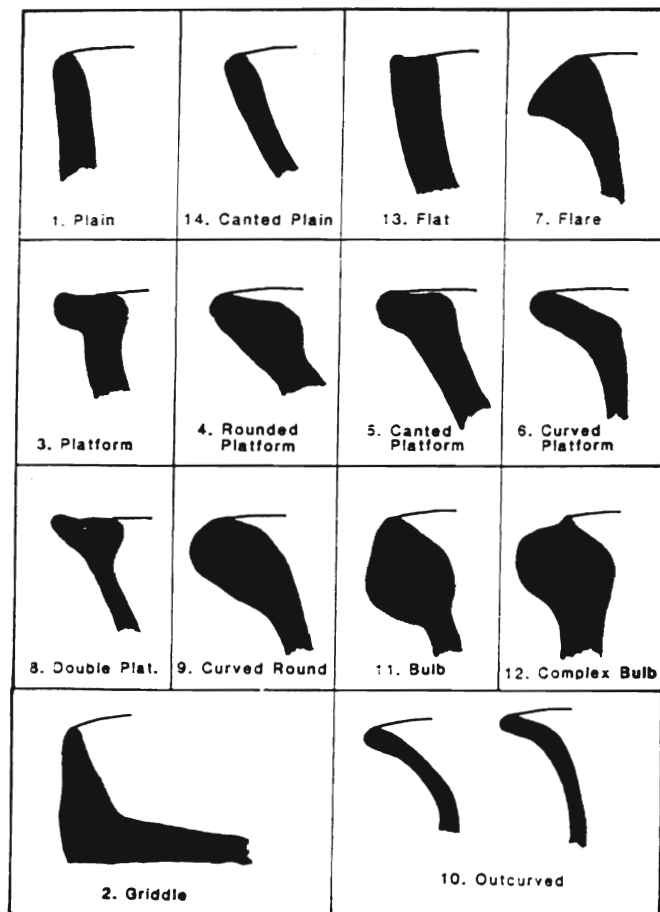


Fig. 1.9 Pottery forms—WR series (after Wilson 1989 Fig 1.6)

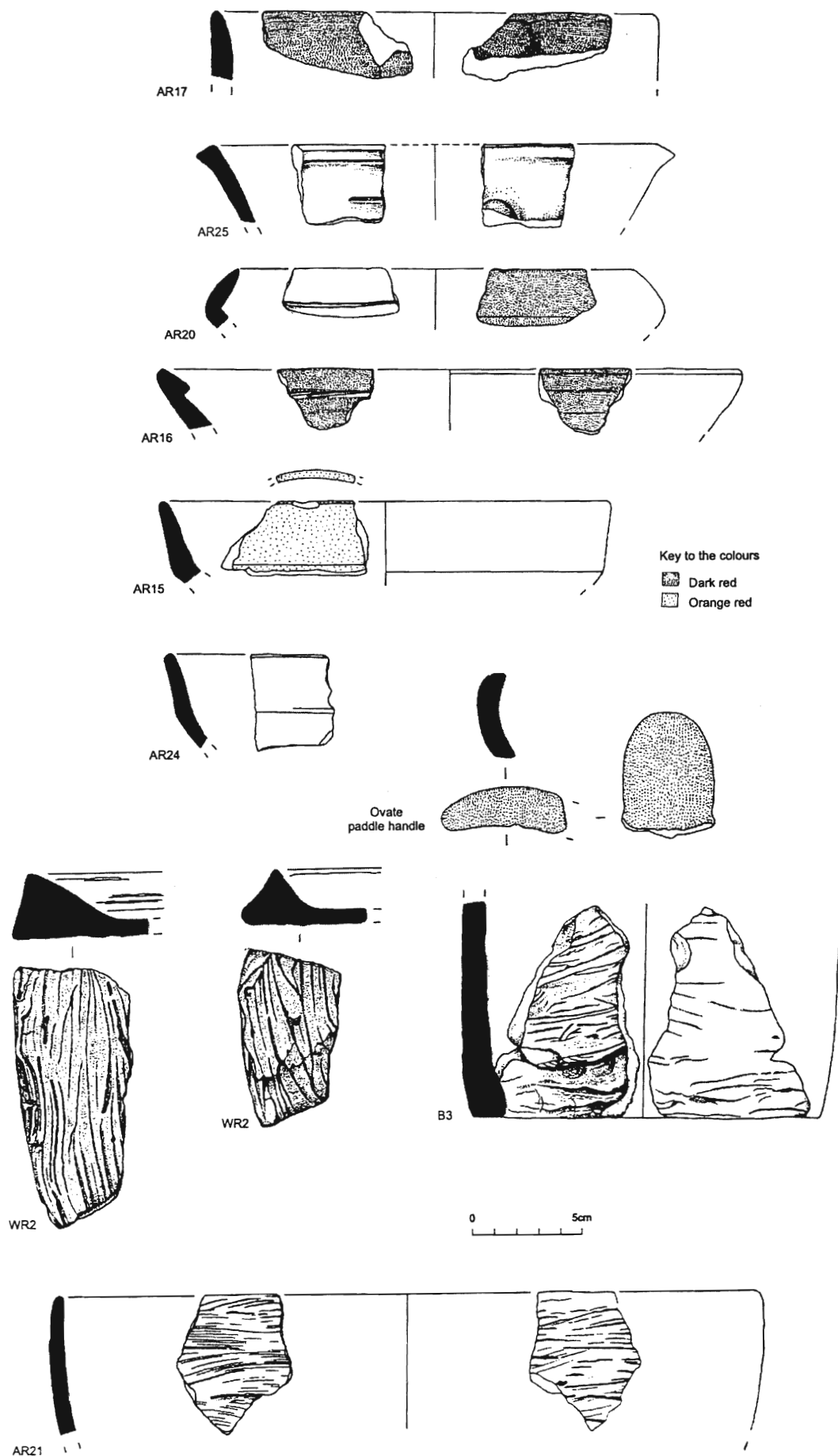


Figure 1.10 Illustrated pottery forms

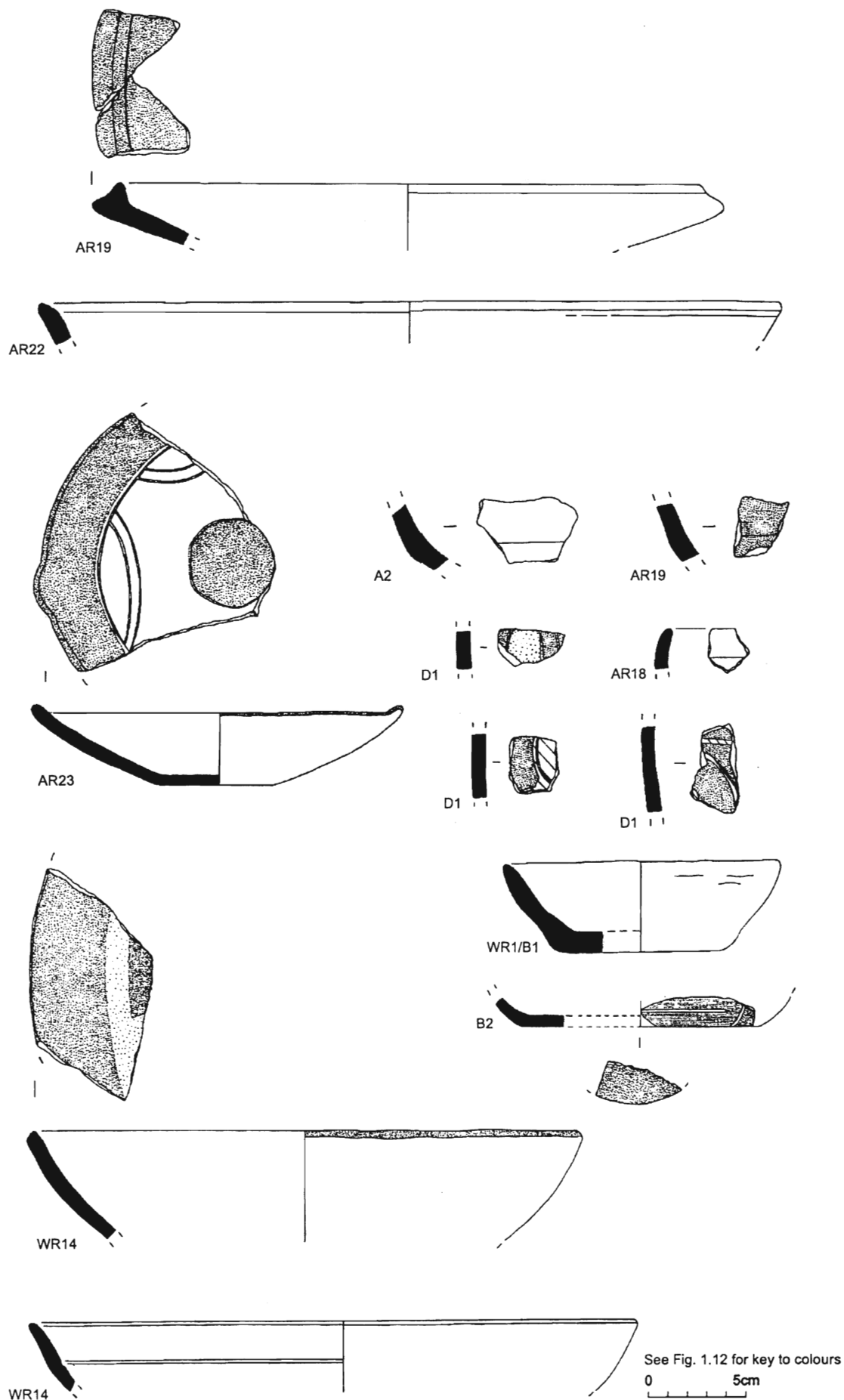


Fig. 1.11 Pottery forms

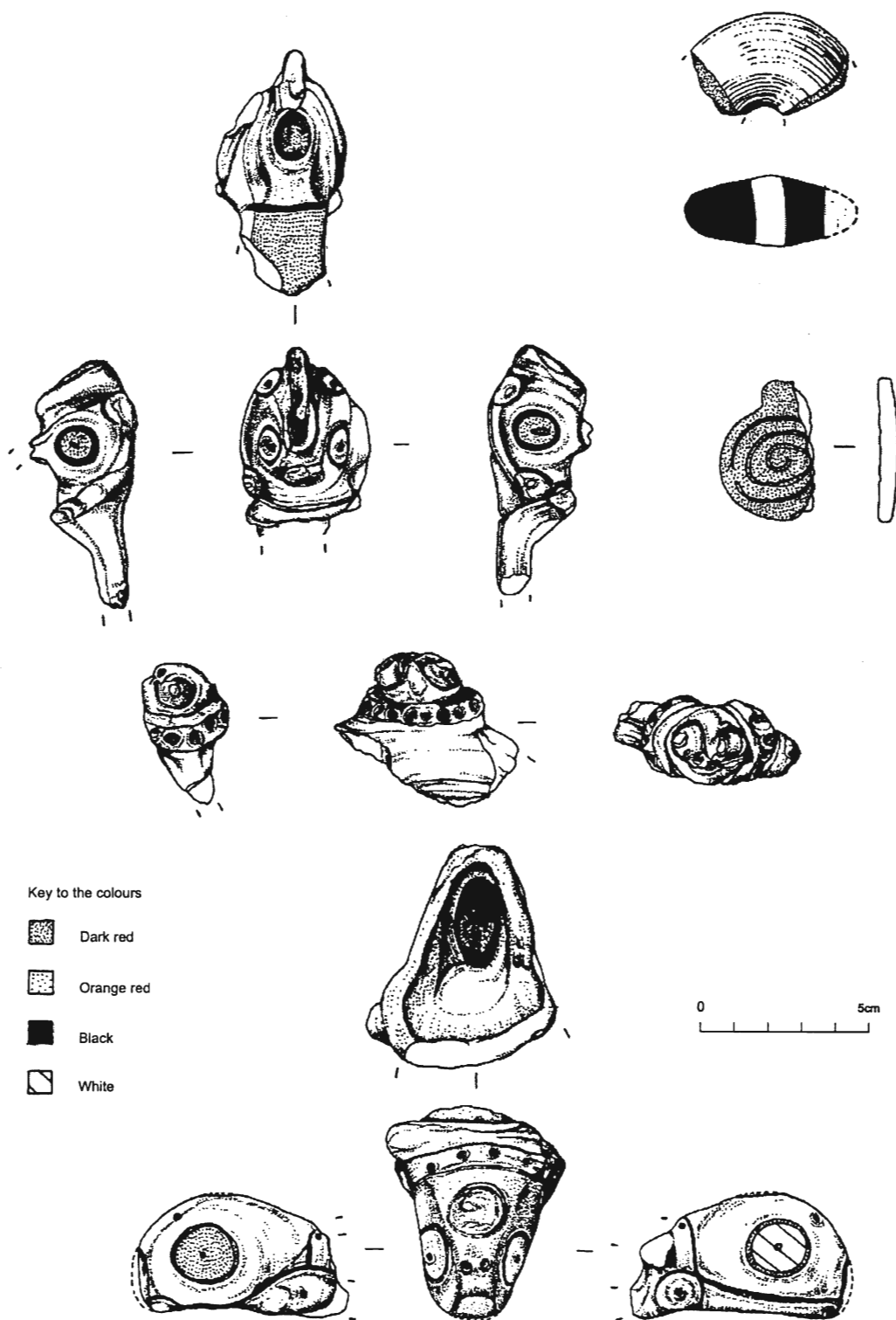


Fig.1.12 Pottery forms

Amongst the rim sherds there is an overwhelming dominance of wide, open vessel types, including the distinctively flat, shallow griddles (WR2) or rims with some depth to the profile which can be classed as bowls or dishes. There are rare occurrences of straight-profile vessels (AR21) and closed form vessels (AR18), and also the curious, open-base cylinders (B3), recognised within the Late Saladoid assemblage from the Golden Rock site on St. Eustatius (Versteeg and Schinkel 1992, 57, figs. 37-38). The quantities of each form type is presented in Table 1.2 for the gridded squares sample and Table 1.3 for the testpits.

Form Type	Number of sherds	Weight of sherds	Number of records	% of rim records only
RIM TYPES				
WR1	48	343	38	42.2%
WR2	8	120	8	8.9%
WR4	7	83	6	6.7%
WR10	21	46	20	22.2%
WR13	2	5	2	2.2%
AR15	7	152	7	7.8%
AR16	9	62	9	10.0%
BASE TYPES				
B1	4	352	4	
B2	8	337	8	
SHOULDER SHERD TYPES				
A2	19	245	19	
A3	12	179	8	
SLIP DECORATED BODY SHERDS				
D	172	1158	51	
PLAIN BODY SHERDS				
P	1201	6319	179	
OTHERS				
various	3	14	3	
TOTAL	1521	9415	362	

Table 1.2 Quantification of pottery assemblage sample from gridded squares

Decoration and Surface Treatments

Painted decoration (PT) of white, curvilinear (type 1) and linear execution (type 2), incised (IC) decoration of either type 1 or type 2 and tooled decoration (TO) of either type were recorded. Incising cuts or breaks the fabric surface, while tooling simply presses the clay inwards for a softer and usually wider impression. The incised lines were found cut into plain surfaces before burnishing. Two examples of incised lines being used to define panels or zones of red paint were recognised. Many sherds in the assemblage were found to have red paint on one or both surfaces. Body sherds with this surface treatment were classified as slip-decorated (D) in order to avoid confusion with the white painted designs (see above). This red-paint treatment may or may not be part of specific panels or patterned designs; many of the sherds are too small to determine this difference.

Form Type	Number of sherds	Weight of sherds	Number of records	% of rim records only
RIM TYPES				
WR1	32	464	25	32.5%
WR2	19	587	13	16.9%
WR3	1	9	1	1.3%
WR4	1	18	1	1.3%
WR6	1	5	1	1.3%
WR7	2	72	2	2.6%
WR10	11	50	11	14.3%
?WR13	2	23	2	2.6%
WR14	8	137	8	10.4%
AR16	10	126	4	5.2%
AR17	1	18	1	1.3%
AR18	1	4	1	1.3%
AR19	2	41	1	1.3%
AR20	1	15	1	1.3%
AR21	1	30	1	1.3%
AR22	1	10	1	1.3%
AR23	1	113	1	1.3%
AR24	1	18	1	1.3%
AR25	1	18	1	1.3%
			77	
BASE TYPES				
B1	1	54	1	
B2	14	207	11	
B3	4	119	2	
SHOULDER TYPES				
A2	16	244	15	
A3	5	103	5	
SLIP DECORATED BODY SHERDS				
D	76	545	55	
PLAIN BODY SHERDS				
P	452	3783	148	
OTHERS				
various	2	29	2	
TOTAL	667	6842	316	.

Table 1.3 Quantification of pottery assemblage from testpits 1-3

Burnishing of one or both surfaces is extremely common within the GE-5 assemblage. The presence of burnish on the interior of vessels indicates that the profile of the original pot was likely to have been an open form, such as a bowl, dish or griddle, while burnish on the exterior only is likely to indicate the the vessel was a closed form, or jar. Central base sherds derived from griddles usually bear deeply incised, irregular grooves on the underside and burnish on the top (interior) side; the smoothness allows for easy removal of the

manioc/cassava cake while the roughness is interpreted as a mechanism for improving heat distribution.

No examples of zone-incised cross-hatching (ZIC), typical of the Early Saladoid ceramic period, were recovered. Examples of ZIC would not necessarily be expected amongst such a small number of sherds (less than 700) recovered from the testpits which sampled deposits of Saladoid phase occupation, and the larger assemblage from the gridded squares is Ostionoid in date. Future analysis will focus on the quantification and variety of decoration as dating methods.

Gridded Squares versus Testpits

There are several differences between the gridded square sample assemblage and the testpits 1-3 assemblages. Table 1.2 of the gridded squares indicates that while there are 90 records representing a maximum number of different vessels recognised solely by the rim form, there are only seven different rim types present. These are dominated by the plain (WR1) form (42%) with the angled shoulder version (AR15) of this rim making an additional 8%, and the outcurved (WR10) form (22%). Griddle rims make up 9% of this collection, and the very open form of flat platform rims 10%.

This contrasts with the testpits pottery. Table 1.3 presenting the testpits data shows that there are 77 records of different vessels from the rims alone, and there is a much greater range of rim types present in the testpits with 19 types. There are far fewer plain rims (32%), fewer outcurved rims (14%), but nearly double the number of griddle rims (17%), and many canted rims (WR14; 10%). Nine newly defined rim types occurred only in the testpits. In addition, the unusual cylinders (B3) only occurred in testpits.

If these differences are compared to the data provided by Wilson in his examination of the Hickmans' surface collection compared to the combined information from seven surface collections from different Ostionoid sites on the island (1989, table 2), the diversity recognised previously from Hickmans' has been maintained in the testpits but the standardisation recognised at the post-Saladoid or Ostionoid sites elsewhere on the island appears to be represented in the gridded squares collection of the platform/terrace. This suggests that, if these differences are chronological rather than functional, the pottery from the platform/terrace surface is clearly post-Saladoid in date.

The rim forms from each of the three stratigraphical layers within the testpits (topsoil/layer 1; cultivation disturbance of prehistoric midden/layer 2; undisturbed midden/layer 3) were then assessed to determine if any layer was similar to the platform/terrace collection. Table 1.4 presents the testpit data by layer. Although it is not likely to be statistically sound to compare groups of 18, 34 and 21 rim records from the testpits with that of 90 rim records from the gridded squares, nevertheless this data suggests that there are differences between the upper two layers of the testpits and the platform/terrace pottery such as the variety of rim types present being strongly represented in these layers not just in layer 3 and that plain rims represent only 40% of these layers.

This dichotomy was further explored using the mean sherd thickness data which allows the use of all the recorded pottery, both featured sherds and body sherds, with the exception of the very few split sherds. Therefore, 309 records from the testpits and 348 records from the gridded squares were compared by cumulative percentage frequency. Table 1.5 and Fig. 1.13 show the evidence for the platform/terrace collection, testpits generally and each testpit layer separately. Once again strong differences are displayed between the two groups of pottery. For example, 42% of the sherds from the testpits as a whole have wall thicknesses of less than 7 mm, but only 21% of the platform/terrace sherds are this thin, ie. half as many sherds. Similarly 70% of the testpits pottery measure less than 9 mm thick, while less than

TEST PIT	SPT/ FEATURE	CM DEPTH	CONTEXT	RIM TYPES																									Total
				WR1	WR2	WR3	WR4	WR6	WR7	WR10	WR13	WR14	AR16	AR17	AR18	AR19	AR20	AR21	AR22	AR23	AR24	AR25							
LAYER 1																													
TP1	1	0-10	1000	2	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4		
TP1	2/1	10-14	1000	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2		
TP2	1/1	0-7	1010	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	2		
TP2	1/2	7-10	1011	3	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	6		
TP2	2/1	10-13	1011	1	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3		
TP3	-	0-7	1050	-	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2		
			Total	6	4	-	-	-	-	1	4	1	-	-	-	1	1	1	-	-	-	-	-	-	-	-	18		
LAYER 2																													
TP1	2/2	14-20	1001	5	2	1	-	-	-	-	2	-	-	-	-	3	1	-	-	-	-	-	-	-	-	-	14		
TP1	3	20-30	1001	6	3	-	-	-	-	1	2	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	13		
TP1	Scoop 1	34-44	1004	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2		
TP2	2/2	13-20	1012	2	-	-	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	4		
TP3	-	7-23	1051	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1		
			Total	15	5	1	-	-	-	1	5	-	1	4	1	-	1	-	-	-	-	-	1	-	-	-	34		
LAYER 3																													
TP1	4	30-40	1006	2	3	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	7		
TP1	5	40-50	1006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0		
TP1	6	50-60	1006	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1		
TP1	7	60-63	1006	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1		
TP1	PH2	46-141	1008	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1		
TP2	-	18-23	1013	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	2		
TP3	-	23-54	1052	-	1	-	1	1	1	-	1	-	2	-	-	-	-	-	-	-	-	-	1	1	1	1	9		
TP3	-	54-66	1053	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3		
			Total	4	4	-	1	1	1	-	2	1	7	-	-	-	-	-	-	-	-	1	-	-	-	-	21		
	GRAND TOTAL			25	13	1	1	1	1	2	11	2	8	4	1	1	1	1	1	1	1	1	1	1	1	1	77		

Table 1.4 Quantification of rim types from testpits by layer and context

50% of the platform pottery does. Only 6% of the testpits pottery measures 13 mm thick or more, while 11% of the platform does and these include sherds measuring from 17-22 mm thick, none of which occur in the testpits. Selection of just the layers 1 and 2 pottery from the testpits to compare sherd wall thickness with the platform pottery further demonstrates that these upper testpit layers are not similar to the platform pottery.

THICKNESS CODE	SIZE RANGE	TESTPITS - LAYERS 1-3 (n = 309)	GRID SQUARES (n = 348)	TESTPITS - LAYER 1 (n = 95)	TESTPITS - LAYER 2 (n = 133)	TESTPITS - LAYER 3 (n = 81)
1	<5 mm	9.0	5.7	7.4	9.0	11.1
2	5-<7 mm	32.6	14.9	31.6	25.6	48.1
3	7-<9 mm	28.4	27.6	30.5	33.1	17.3
4	9-<11 mm	17.1	31.0	14.7	21.1	11.1
5	11-<13 mm	7.1	9.8	8.4	7.5	4.9
6	13-<15 mm	3.9	4.6	6.3	1.5	4.9
7	15-<17 mm	1.9	2.9	1.1	2.3	2.5
8	17-<19 mm	0.0	2.0	0.0	0.0	0.0
9	19-<21 mm	0.0	0.9	0.0	0.0	0.0
10	21-<23 mm	0.0	0.6	0.0	0.0	0.0
	Total	100.0	100.0	100.0	100.1	99.9

Table 1.5 Cumulative frequencies of vessel wall thickness for gridded squares and testpit assemblages

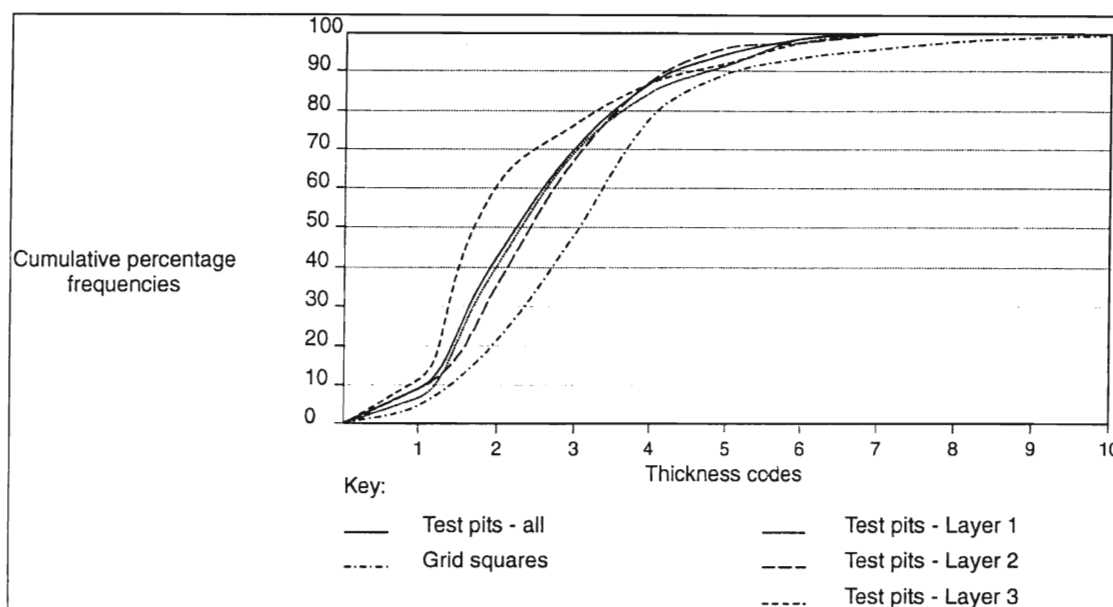


Fig. 1.13 Cumulative frequencies of vessel wall thickness for gridded squares and testpit assemblages

If modeled and white painted decoration data are examined, a further difference becomes apparent (Fig. 1.12). There are only three incised and tooled sherds and one white painted records in the platform sampled collection, but there are 15 modeled and six white painted sherd records from the testpits. One of the incised sherds from the platform collection has black infilling of the incised line.

Testpits 1, 2 and 3: Layer variation

Examination of the differences between the layers within the testpits was conducted to determine whether there might be discernable variations, indicating chronological change

within these three deposits. There does not appear to be any strong differences amongst the rim form frequency, or range, despite the small number of records present but there is a difference amongst the sherd wall thicknesses. Layer 3 sherds are much thinner than those from layers 1 and 2; 39% of layer 1 and 35% from layer 2 are less than 7 mm thick, but 59% of the layer 3 sherds are this thin. It is recommended that future comparison of different assemblages must include at least 26 rim records in each layer or phase of assessment, and that the number of records must be relatively similar for such analysis to be appropriate.

Testpits and Screening

The assessment has also demonstrated that careful excavation of testpit soil does recover a representative sample of the full range of vessel wall thickness sherds. Screening was conducted to guarantee recovery of the thinner-walled sherds which are visually smaller in surface area and therefore may have been overlooked during excavation. Vessel wall thickness variability is a key factor in determining the general date range of an assemblage - Saladoid is thinner, Ostionoid is thicker.

Testpits 1 and 2 were screened, but testpit 3 was not. However, a total of 81.2% of the pottery recovered from testpit 3 (excluding the sherds from environmental samples) belonged to the thinner-walled range of sherds (codes 1-3), and in fact at least 64% was in the very thin ranges of <5 mm (code 1) and 5-<7 mm (code 2) (Table 1.6). Therefore, when an experienced excavator is not screening soil from a testpit, biased retrieval of thin-walled pottery in favour of thick-walled pottery is not apparent.

THICKNESS CODE	SIZE RANGE	TESTPIT 1 (n = 139)	TESTPIT 2 (n = 88)	TESTPIT 3 (n = 53)
1	<5 mm	10.8	6.8	5.7
2	5-<7 mm	25.2	30.7	58.5
3	7-<9 mm	30.9	29.5	17.0
4	9-<11 mm	17.3	23.9	7.5
5	11-<13 mm	10.8	4.5	7.5
6	13-<15 mm	3.6	3.4	1.9
7	15-<17 mm	1.4	1.1	1.9
8	17-<19 mm	0.0	0.0	0.0
9	19-<21 mm	0.0	0.0	0.0
10	21-<23 mm	0.0	0.0	0.0
	Total	100.0	99.9	100.0

Table 1.6 Cumulative percentage frequencies of vessel wall thickness for testpits

Screening may, however, have other advantages. Without screening, only 53 sherds were recovered from testpit 3, but through screening 88 and 139 sherds were recovered in testpits 1 and 2 respectively. There are two possible interpretations for this variation: (1) the area of site represented by testpit 3 was a less dense midden deposit and the excavator recovered all the possible pottery from that area, or (2) screening is an important technique for recovering all of the pottery from a representative 1-metre square of an area and should be employed wherever possible to recover as many featured and/or decorated sherds as are available in such a sample.

Refining of Dating Evidence

In addition, this comparative exercise has revealed that testpit 3 is very different in character from the areas sampled as testpits 1 and 2. All three groups are Saladoid but testpit 3 pottery

is extraordinarily thin compared to the rest of the Saladoid deposits. Therefore, this exercise has clearly demonstrated that if at least 50 sherds are recovered from a testpit, we should be able to determine if the testpit represents what may be 'earlier' Saladoid pottery (testpit 3) compared to the material represented by testpits 1 and 2. This exercise seems to have demonstrated that there are three phases represented in the small amount of the site investigated: testpit 3 = 'earlier' Saladoid, testpits 1 and 2 = 'later' Saladoid, and Area A surface = Ostionoid. How 'earlier' and 'later' the Saladoid and how much later the Ostionoid remain to be discovered through further analysis and radiocarbon dating.

Summary Discussion

Assessment of the pottery from the 2000 season fieldwork on the east side only of GE-5 at Hickmans' has shown that this part of the site has a complex culture history beginning at sometime during the Saladoid ceramic period. There is a long chronology, however, continuing into the post-Saladoid period. Five days of fieldwork excavating and screening three testpits and collecting artefacts from 136 one-metre gridded squares representing just over 50% of an apparently terraced structure produced quantities of pottery suitable for comparative analysis of forms, wall thickness, surface treatments and decoration. More detailed scrutiny within and between testpit layers revealed that more pottery is required for this level of comparison, and a minimum of 26-30 rim records is recommended for future work. The analysis has shown that the testpit deposits are Saladoid in date, while the platform/terrace is distinctively post-Saladoid and probably separated by some time from the occupation represented by the midden deposits recognised in the testpits. This has been demonstrated by significant differences between rim diversity and standardisation in form type, vessel wall thickness and frequency of decoration, all attributes shown by Wilson (1989) to demonstrate the variation between Saladoid and post-Saladoid assemblages.

What is so encouraging is that Hickmans' GE-5 appears to have a long occupation period spanning the Saladoid to post-Saladoid periods and that this sequence has the potential to be defined and secured by radiocarbon dating aiming to resolve the major concerns of researchers into the prehistory of the Lesser Antilles (Versteeg and Schinkel 1992; Versteeg, Schinkel, and Wilson 1993).

Economic and environmental programme

J L Heathcote

Introduction

During the excavation of test pits at Hichman's GE-5, bulk samples of soil were processed in order to examine the range of animal and plant remains present in the deposits. This material will be used to provide insight into the economy and subsistence strategies employed at Hichman's. It may also provide information about the local environment contemporary with the various phases of activity at the site if species are identified that are unlikely (due to size or unpalatability) to have been used as a food resource. In addition, evidence from other prehistoric sites in the Caribbean indicates the use of bone, teeth, shell and coral in the manufacture of artefacts of both social and technological significance (Versteeg and Schinkel 1992; Hoffman and Hoogland 1999; Drewett 2000). Where these artefacts are small, subtly worked and/or fragmentary, their recovery is aided by the use of flotation or wet sieving bulk soil samples.

Finally, it is of particular importance to determine whether species introduced by European contact (*e.g.* domestic pig, sheep, goat, cattle, black rat) are present in the deposits as the identification of such species has implications for either the date of the deposit or its stratigraphic integrity.

Materials and methods

Due to the density of material within the deposits, the limited time available and the small size of the test pits, samples of only 10 litres each were collected from each context or, where the contexts were greater than 20cm deep, from 20cm spits within the context. These were processed using flotation, using 0.5cm mesh to collect the heavy residue and 0.25cm mesh for the floating fraction. All samples were processed on island. Flotation, rather than wet sieving, was employed in order to assess whether there was any potential for the recovery of charred seeds which might provide further insight into the kinds of food resources being utilised by the occupants of Hichman's. In addition, this technique is invaluable for the recovery of other types of charred material (roots, tubers and wood) and land snails.

The fine mesh sizes were chosen in order to provide as complete a picture as possible of the range of biological materials present. In particular, it allowed the recovery of very small fish, bird, mammal and possible reptile remains that would have been lost if a larger gauge had been selected.

Preliminary results

Full analysis of the assemblage has not yet been completed and the following information is preliminary and based on rapid assessment of the material by the author, Sonya Collins and Alison Locker. Several categories of animal and plant remains have been identified representing land, coral reefs, inshore and pelagic habitats.

Animal remains

Mammals – the majority of specimens are small mammals, including rodents, represented by both bones and teeth. A few fragments from TP1, context 1006 appear to have been burnt. The presence of large mammal remains is, as yet, unconfirmed.

Reptiles – numerous fragments of reptile remains (including a jaw) are present throughout TP1.

Fish – both inshore and deep water species appear to be represented in the bone assemblage. Otoliths have also been recovered (see Table 1.7). These are mineralised tissues found in the ears of some mammals, reptiles and, most commonly, fish.

Crab – fragments are concentrated in the lowermost contexts of TP1 and TP3; they are most likely to be land crab but the identification requires confirmation and refining.

Marine shell – assessment of the assemblage indicates, amongst others, limpets, cowrie, conch (including as artefacts) and West Indian Top Shell. These may have been exploited as a food resource though it is noted that the West Indian Top Shell (*Cittarium pica*) is favoured by hermit crabs and therefore may be moved around without human activity (Jansen in Hoffman and Hoogland, 2000). In addition, fragments of shell with an incised, cross-hatched decoration have been identified from TP1.

Coral – coral fragments are predominantly *Acropora cervicornis* and *A. palmata*. Fragments of *A. cervicornis* have been identified as being used as rasps and awls (Versteeg and Schinkel, 1992) and examination of the specimens for wear indicating such use will be undertaken during the next stage of analysis.

Land snails – these are abundant in context 1006 and 1030 in TP1 and present in limited frequencies in other contexts. Their small size (typically <1cm) means that is extremely

unlikely they were exploited as a food resource and that their presence is more indicative of local environmental conditions. A limited range of species appears to be present, though further analysis is required for confirmation and to determine the habitat represented by the assemblage.

Other - skeletal elements of sea urchin and turtle have also been recovered.

Wet/Dry sieved	Testpit	Spit	Sample	Context	CM Depth	Sieve size	Number of vertebrae	Number of skull frags
d	1	2/1	-	1000	10-14	-	2	-
w	1	-	10,003	1001	-	-	-	1
w	1	2	10,003	1001	-	<2mm	1	-
w	1	2	10,003	1001	14-20	-	6	-
w	1	2	10,003	1001	14-20	5.2mm	7	1
d	1	2/2	-	1001	14-20	-	8	4
w	1	3	10,005	1001	20-30	-	27	1
w	1	3	10,005	1001	20-30	-	-	3
d	1	3	-	1001	20-30	-	35	14
d	1	4	-	1006	30-40	-	11	13
w	1	5	10,009	1006	40-50	-	34	5
w	1	5	10,009	1006	40-50	-	7	-
d	1	5	-	1006	40-50	-	11	1
w	1	6	10,011	1006	50-60	>5mm	5	2
w	1	6	10,011	1006	50-60	<2mm	7	-
w	1	6	10,011	1006	50-60	2.5mm	25	-
d	1	6	10,011	1006	50-60	-	3	1
d	1	7	-	1006	60-63	-	3	2
w	1	PH2	10,014	1008	46-141	-	60	6
w	1	PH2	10,014	1008	46-141	<2mm	9	-
d	1	PH2	-	1030	46-141	-	6	4
					Testpit Sub-Total		267	58
w	2	2	-	1011	-	-	4	-
d	2	2	-	1011	-	-	1	-
w	2	2	-	1012	-	-	1	1
d	2	2	-	1012	-	-	5	-
d	2	3	-	1012	-	-	10	2
d	2	3	10,022	1016	-	-	1	1
					Testpit Sub-Total		22	4
d	3	C	-	1052	-	-	10	2
d	3	D		1053	below 50	-	1	-
					Testpit Sub-Total		11	2
						TOTAL	300	64

Table 1.7 Analysis of excavated fish bone from GE-5 (compiled by Alison Locker)

Plant material

The recovery and identification of plant material is of particular interest, as this category of information is lacking for much of the prehistoric Caribbean, both in terms of local vegetation and exploited resources. Though identification of wood charcoal may provide insight into the utilisation of local tree/shrub species, given the coastal aspect of the site, it may also have been collected as driftwood. All material has yet to be examined by an archaeobotanical specialist.

Charcoal – abundant charcoal was produced from contexts 1006 and 1030 in TP1. Many of these fragments are greater than 2mm (often c.1cm) and are therefore large enough to attempt identification of the wood type.

Charred roots and tubers – none have been identified during the initial scan of material.

Charred seeds – a scan of 25% of each of the flots has not produced any charred seeds; work continues on scanning the remaining 75% of the material.

What next?

The final assessment will incorporate the following information:

- species lists and habitat associations
- counts of identified specimens
- examination of any changes in animal and plant remains represented both through the individual test pit sequences and between the test pits
- preliminary statement of the implications for the exploitation of resources and strategies in their collection
- implications for future field seasons in terms of recovery, processing and identification of material

Acknowledgements

Dr J D Hill is thanked for his help in processing the samples on Nevis; Sonya Collins for sorting many of the heavy residues and flots; Alison Locker for producing the assessment of the fish remains.

Lithics analysis

Peter Bellamy

Chipped stone from site GE-5

A total of 169 pieces of chipped stone was recovered from this site: 56 from the test pits and 113 from surface collection. The condition of the assemblage was generally good, with only a slight degree of post-depositional damage apparent. About 10% of the assemblage was burnt.

The raw material used was exclusively chert, but this exhibited a wide variation in colour and grain size. Both fresh nodules and water-rolled pebbles or cobbles were utilised. There are no known chert sources on Nevis clear, however, whether the rolled pebble material was collected locally or was also brought to the site. There are no chert pebbles visible on the beach adjacent to the site today, but small chert pebbles can be collected on the beach on St Kitts (Walker 1979). The dominant type of chert is tan and dark brown in colour, similar to that found on Antigua (van Gijn 1993). The sources of the rest of the chert are unknown at present. The flaking quality of the raw material was fairly poor, resulting in a great deal of shatter and broken pieces. Preliminary analysis suggests that the raw material was brought to the island as unmodified nodules or pebbles, rather than as prepared cores or finished artefacts. The movement of chert between the islands of the Lesser Antilles is a vital component in the network of contacts in the region.

The chert assemblage comprises mainly waste pieces (including a core trimming flakes, broken and shattered debitage and a small number of cores) with a small number of utilised pieces present also. The range of material present suggests that knapping is taking place on the site. It appears to be a non-specialised flake industry producing no formal tool types. The

utilised artefacts are mainly flakes or broken flakes with some edge damage, possibly through use. A number of the thicker flakes appear to be intentionally snapped. A cursory examination has revealed that the material from the Test Pits and Area A are similar in character. At this stage, it has not been possible to separate the two assemblages either on technological or functional grounds, however, the large proportion of broken and shattered pieces may be masking more fundamental differences, which will only become apparent with detailed analysis. Recent analyses of chipped stone assemblages from the Lesser Antilles have concentrated on the reduction sequence model and have produced some interesting results on the exploitation and use of chert. Unspecialised flake industries appear to be the norm for both the Saladoid and the Ostionoid periods, however, at some sites, such as Sugar Factory Pier, St Kitts, there is evidence for specialised chipped stone industries producing 'teeth' for manioc grater boards (Walker 1979).

The chert assemblage collected to date is not of a sufficient size to warrant sophisticated analyses, however, the density of chert artefacts is sufficient to suggest that a sufficiently large sample could be obtained. With a larger sample, attribute and metrical analysis of the chert assemblage would enable a fuller understanding of the technologies and use of chert and allow comparison with similar sites in the Lesser Antilles. It may also be possible to isolate areas of differing activities on the site.

Stone objects from site GE-5

No certain stone objects were recovered from the test-pits. However, an elongated pebble with traces of pecking on one end and one flake of the local volcanic rock were recovered but it is not clear whether this is the result of accidental damage. The surface collection has produced four stone artefacts. A small fragment of a polished implement, perhaps a rubber, and a flake of non-local volcanic rock were recovered from the gridded squares of Area A. Elsewhere on the site, a fragment of a polished ?axe, and an almost complete pounder or pestle were recovered, both of non-local rock. The types of stone objects recovered from the site helps to define the range of tools and equipment available to the people on this site and aids in the understanding of the economic and social activities taking place on the site. More importantly, however, identification of the sources of the non-local stone objects will allow aid in the understanding of the complex web of inter-island contacts.

GE-6

GE-6 survives as described by Wilson: a low mound formed of shell midden and scattered chert flakes and cores stretching along the eroding edge of the 3m high sea cliff. It has maximum dimensions of 51m north-south by 21m east-west but may have been truncated by the erosion of the cliff to the east—where the eroding cliff section indicated 20-30cm depth of midden—and by the gully to the south. This is considerably larger than the 25m by 10m area recorded by Wilson who may only have recorded the area of deepest midden deposit. His test excavations recorded a 40cm depth of deposit. To the west the site is flanked by the remains of the cart road that appears to have circled the island during the post-contact period.

One of Wilson's ten test excavations in this site returned a radiocarbon date of 605 +/- 290 BC. Preliminary analysis of faunal bone material from his excavations suggest the midden was dominated by reef species such as parrot fish (*Scarus* sp. and *Sparisoma* sp.), grouper (Serranidae) and surgeonfish (*Acanthurus* sp.) although pelagic barracuda (Sphraenidae) were also common. A variety of other taxa including Moray eel (Muraenidae), needle fish (Belonidae), wrass (Labridae), porcupine fish (Diodontidae) and sea turtle were sparsely represented. The shell was restricted to molluscs, particularly whelks (*Cittarium pica*), but also turkey wings (*Arca zebra*) and conch (*Strombus* sp.).

These faunal results suggests that the current rocky shore and shallow reef marine environment may be relatively little changed to that of 2500 years ago. They also suggest that the people occupying GE-6 were almost exclusively exploiting local resources with few pelagic and no beach or estuarine taxa represented. This does not mean, however, that the occupants were isolated from the wider region of the Leeward Islands. Aside from the midden, considerable numbers of worked chert flakes and cores are also spread over the surface of the midden for which there is no source on Nevis.

A surface collection was made of all worked stone materials along a 1m wide transect oriented north-south across the centre of the site. A total of 358 pieces were collected. A preliminary analysis of this material is presented below.

The most commonly known centre for chert or flint exploitation is on Antigua some 60 km to the southeast (van Gijn 1993, Davis 1993) although flint used by prehistoric communities on the island of Saba appears to derive from a flint deposit on St Maarten 100km to the north-northwest of Nevis. No suitable cryptocrystalline source is known on Barbuda or Montserrat, despite an intensive survey (Watters 1980), and although small flint pebbles can be found on St Kitts and St Eustatius these do not appear to have been used (Walker 1979, Van der Valk 1992).

Further sourcing and morphological analysis of the flake and core assemblage will aid in the construction of flake typologies for the aceramic assemblages generally and in isolating the sorts of inter-assemblage similarities and differences that will allow an understanding of the extent and frequency of contact between islands. The results from Nevis suggest that the occupants of GE-6 were far from being an isolated community but were either accomplished in moving between islands or participated in an inter-island exchange network. In this light the exploitation of GE-6 might represent the repeated seasonal occupation of a highly mobile population.

Lithics analysis

Peter Bellamy

Chipped stone from site GE-6

A total of 358 pieces of worked chert was recovered by surface collection from a single transect across this site. The condition of the assemblage was good with little evidence of post-depositional damage. About 30% of the assemblage had been burnt. In common with site GE-5, there was a range of different chert types present. The chert types were slightly different to those found on GE-5; there are fewer pieces of 'classic' tan and brown Antigua chert and there is a smaller proportion of chert from beach pebbles. This may indicate a different contact network operating in the pre-ceramic period, perhaps utilising different chert sources.

The chert assemblage includes cores, flakes and a large quantity of waste debitage, suggesting that knapping was taking place on site. The assemblage represents an unspecialised flake industry; as yet, there is no clear evidence for the production of blades, such as those found on the pre-ceramic site of Jolly Beach, Antigua (Davis 1993). The flakes are generally narrower than those from GE-5 and there is some indication that the larger flakes were further reduced in size to produce small, but thick, pieces of the required size. The utilised artefacts are all flakes or broken flakes with some edge damage, possibly through use. Metrical and attribute analyses of the worked chert from this site have the potential to provide a detailed account of the exploitation of this resource and isolate the products of the industry and their potential use. It will provide a comparative set of data to allow the exploitation and use of chert in both the pre-ceramic and ceramic periods on the

site to be explored. The biggest constraint on the potential of this assemblage is its small size. Work elsewhere in the Lesser Antilles (Davis 1993) has shown that the inefficiency of the manufacturing technology and the poor quality of the raw material means that the ratio of 'products' to waste is such that a large assemblage is needed to be able to understand the true character of the industry.

Stone objects from site GE-6

A single broken pounder or pestle made from volcanic rock was recovered from the surface collection on this site. It will provide a useful comparison to the similar objects from site GE-5.

GE-8

GE-8 is a new site, previously unrecorded by Wilson. It is situated approximately 40m west and slightly upslope of the most westerly extent of GE-5 and comprises a sparse scatter of chert flakes and cores over a roughly triangular shaped area approximately 40m in diameter. The site is crossed by a later, post-contact period drystone wall and is otherwise flat, lying under short turf and grazed by goats. The density of chert over the site was extremely low—approximately one piece per five square metres—and the full extent of the site, particularly to the west, could not be securely defined. However there is a clear hiatus between the site and GE-5 within which no cultural materials of any sort are visible on the surface.

There was not sufficient time to make a surface collection of chert from the site, although this will be accomplished in the course of future investigations. It is quite likely that the surface chert represents only a small proportion of material from what may be a much richer deposit lying partially sealed beneath a later sugar cultivation soil. The complete absence of pottery indicates the site belongs to the aceramic period of occupation and is therefore of great interest given the scarcity of such sites on the island and the relatively inland location of GE-8 compared to GE-5 and the one other aceramic midden recorded by Wilson.

The absence of shell may also be significant. Such an absence may be expected at a distance of approximately 450 inland from the coastal edge, and the site may represent a relatively transient flaking floor, perhaps associated with a single unspecified use of the site. Alternatively midden remains may survive sealed beneath the sugar cultivation soil, being less prone to movement through the soil than the sharp chert flakes, and less durable when exposed to the surface.

Significantly, sites such as GE-8 are small and extremely difficult to locate during site survey. Many similar sites may exist on Nevis, but are would be completely invisible unless actually walked over by the archaeological surveyor. Even then, the chances of locating such sites would be entirely dependent the chance effects of ground cover conditions at the time.

Discussion

The preliminary investigations at Hickmans identify the three-site complex as a fruitful subject for conducting further archaeological research on the entire sequence of human occupation of Nevis and the Leeward Islands. The preliminary results indicate clear stratigraphic and spatial demarcation of different phases and areas of settlement and demonstrate and abundance of artefactual, faunal and environmental materials for reconstructing cultural and environmental profiles for each phase of occupation.

The preliminary results also suggest the potential of these sites for radically altering our current understanding of the cultural and demographic transitions made between and during the aceramic, Saladoid and post-Saladoid periods. The discovery of GE-8 provides a relatively inland component to the aceramic period of occupation, that had previously been differentiated from the ceramic occupations on the basis of its strong coastal, and presumably non-horticultural bias. This distinction must now be questioned.

The enormous size of the Saladoid occupation at Hickmans, coupled with the complex evidence of re-use and modification of the site throughout the duration of this occupation, throw into doubt all previously held models of demographic growth. The evidence suggests that the Saladoid occupation comprised a spectacularly large settlement from the outset, and that this settlement was occupied on what appears to be a reasonably permanent basis for a very long period. While the island population as a whole may have increased over time, into the post-Saladoid period, Hickmans itself seems to have contracted such that the post-Saladoid occupation was only a trace of the earlier site.

The final period of transition, through the period of European contact into the plantation period of Nevis' history is as yet unexplored by excavation. Again, however, the Hickmans complex offers great potential for understanding the impact of the plantation economy onto the indigenous society and for understanding developments in the plantation economy over several centuries.

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Catalogue of Illustrated Ceramics

Type Series-Rims

WR1-WR14 (from Wilson 1989, fig. 6)

AR15; open form; 5% of 22 cm diameter present; TH2-3; SL/B, BU/B; GS0898/5023; PRN1163

AR16; open form; 7% of 20 cm; TH3-4; SL/B, BU/B; GS0897/5024; PRN1229

AR17; open form-lobed; <5% of rim present; TH3; SL/B, BU/B; TP1, spit 2/2, context 1001; PRN5053

AR18; closed form; <5%; TH2; BU/E; TP2, spit 1/1, 1010; PRN5149

AR19; joining sherds; open form; 6% of 26 cm; TH2-3; SL/I; BU/B; TP2, spit 2, 1011/sample 10015; PRNs5172/5296

AR20; closed form; 7% of 20 cm; TH2; SL/E, BU/E; TP2, spit 2, 1011; PRN5174

AR21; neutral form; 5% of 22 cm; TH3; WP/B; TP2, 1013; PRN5225

AR22; open form; <5%; TH2; BU/B; TP3, 1051; PRN5246

AR23; open form-total profile; asymmetrical; lipped; TH2; single line incised decoration creating three concentric panels of alternating - red slip paint, unpainted with probably four opposing pairs of parallel incised loops, red slip paint on the interior only; BU/B; TP3, 1052; PRN5256

AR24; open form; <5%; TH1-2; SL/E, BU/B; TP3, 1052; PRN5257

AR25; open form; <5%; TH2; BU/B; two, probably continuous, incised lines parallel to rim on interior and discontinuous incised line between these-created after burnishing; TP3, 1052; PRN5258

Type Series-Shoulders

A2; open form; TH4; SL/B, BU/B; GS0897/5023; PRNs1103/1104

Type Series-Bases

B1 (flat base not illustrated separately)

B2; open form; 15% of 10 cm; TH1-2; SL/I; entire exterior (wall and underneath base) red slip painted, then white lines painted on exterior creating one curvilinear panel of red slip paint, followed by orange slip painted within second panel and a discontinuous white paint line parallel to base added to this; BU/B; TP3, 1052; PRN5265

B3; neutral form-cylinder; 15% of 16 cm; TH4; SM/E; WP/I; TP2, spit 3, 1012; PRN5207

Type Series - extra examples

WR1/B2; open form-total profile; 15% of 14 cm rim, 20% of 6 cm base; TH3; BU/B; TP1, spit 2/2, 1001; PRN5061

WR2; griddle; TH3; BU/B; scored on base underside; unstratified

WR2; griddle; TH2; BU/B; scored on base underside; TP1, spit 2/2, 1001; PRN5050

WR14; open form; 11% of 28 cm; TH2; dark slip painted in geometric zones alternating with orange slip paint on interior and dark red slip paint deliberately applied over rim top edge and for 3 mm down exterior of rim; BU/B; unstratified

WR14; open form; 5% of 30 cm; single incised line parallel to rim circumference; TH1-2; BU/B; TP3, context 1052; PRN5262

Decoration - body sherds

Body sherd; TH2; red slip painted interior with white slip paint curvilinear design; BU/B; unstratified

Body sherd; TH2; red slip painted interior with white slip paint curvilinear design; BU/B; unstratified

Body sherd; TH2; ?black slip paint on ?interior; incised lines in geometric pattern with red slip paint alternating with orange slip paint on ?exterior; BU/B; TP3, 1050; PRN5236

Adornos and Handles

Adorno; probably attached to a simple strap handle; pair of red slip painted incised eyes with back infilling of incision; part of moulded facial/head crest red slip painted; part of incised and moulded mouth; four incised red slip painted nubbins with black infilling of incisions; incised line and black slip painted suggestive of a neck zone; BU/B; unstratified

Adorno, AR16; <5% of rim present; a necklace of deeply impressed dots surrounding a head with pair of incised bulging eyes and lip; SL/B, BU/B; unstratified

Adorno-like handle; pair of incised circles creating eyes, one with red slip paint within the eye and one with white slip paint in centre but red slip paint in the incised circle; two broken areas on top of head and nose created by incised circles-top circle interior has red slip; pair of small nostrils; incised line and deeply impressed row of dots at neck to vessel join suggestive of a necklace and with one complete and one broken nubbin; unstratified

Handle; ovate paddle shape; SL/B, BU/B; unstratified

Other Ceramic Objects

Disc; lipped; SL/I; BU/B; incised spiral on concave surface; unstratified

Spindle whorl; biconical profile; 27% of 6 cm; 26 grammes (full weight-c. 96 grammes); TP2, spit 1/1, 1010

Abbreviations: AR-additional rim series to Wilson's typology; TH-thickness code; SL-red slip painted; BU-burnished; SM-smoothed; WP-heavily wiped; E-exterior surface; I-interior surface; BU-both surfaces; GS-grid square location at Area A; TP-testpit; PRN-archived pottery record number

THEME TWO COLONIAL FORTIFICATIONS

Old Road Fort, Cotton Tree Fort and Dukes Sconce/Abbotts/ Coles Point Forts: Fieldwork 2000

Tessa Machling

Background to the Colonial Fortifications Theme

From the early 17th to the mid 18th century, over fifteen forts, batteries and platforms were built on Nevis by the English/British. Designed to protect the plantation sugar and slave trades, these forts were constructed in local stone using planter's money and slave labour. Until 1995, when research was initiated by the author, only a handful of these structures were believed to have survived and little concerted research had been undertaken.

Research and fieldwalking in May 1999 and February 2000 proved that the remains of over ten forts survived on the island. However, coastal erosion, hurricanes and modern development were rapidly damaging and destroying the structures, at a rate of one per year. The Nevis Colonial Fortifications Theme was instigated to research and record the forts before further information was lost.

The aims of this research are to locate, where possible, the remains of these structures, to fully record and investigate the same and to use historical documentation to uncover the history of the structures and their decline and abandonment. Another key aim is to offer, through documentary evidence, an insight into the lives of planters, soldiers, slaves, etc. who designed, built and manned the forts of Nevis during the 17th-19th centuries. Finally, through heritage trails and guide books, it is hoped to raise the profile of these fragile structures, thus establishing recognition and preservation for these little known buildings. The Nevis Heritage Project is working with the Department of Planning of Nevis to provide information on the fortifications so that they may be considered in decisions on future applications relating to coastal development.

These forts form the basis of a doctoral study being undertaken by the author and all results, within this report, should be seen as preliminary: full analysis and publication will be undertaken as part of the research study.

Sites Targeted for Fieldwork in May 2000

In May 2000, following a walkover survey in May 1999 and February 2000, three coastal fortification sites on Nevis were identified for archaeological assessment. From local knowledge and by comparison with other typical Nevis building types, it became apparent that many of the historic structures found on the coast related to military, rather than domestic, buildings. Therefore, all buildings found in this zone, whether immediately recognisable as military structures or not, were viewed and their presence recorded in the walkover survey.

The three sites chosen represent a range of forms and locational environments, interconnected as adjacent batteries in the string of defences on the western coast of Nevis. All the forts on Nevis are under threat of damage or destruction by environmental or, more often, man made

factors and the choice of the three sites was by no means straightforward. However, these three forts apparently offered the maximum of information in the short time available, information which could be extrapolated to the other more ruined, and therefore more difficult to interpret, forts on the island. The three sites at the Four Seasons Resort, Paradise Beach and Cotton Ground were selected for the following reasons:

1. Four Seasons Resort (OLR00).

From documentary records and maps, it was established that Old Road/Katherines Fort was once located within the vicinity of the Four Seasons Resort. However, no remains were known to exist within this area and so, as part of the walkover survey, this area was examined in detail.

At the Resort, masonry was sighted lying underwater approximately 40m out from the shore and appeared to consist of upstanding walls arranged in an approximate semi-circular formation spreading a distance of c.40m, from south to north. The semi-circular layout of the masonry and location so close to the sea could not be paralleled by typical plantation-type buildings and their locations, and so a military function was suggested. This angular, but overall semi-circular, shape was known from documentary evidence to be a common form of Nevis gun platform/battery design. Similar to 'platt bastions', and open to the land, this design is demonstrated in three of the newly built batteries shown in plans sent by Governor Johnson to Britain in 1706. As has been stated, from documentary evidence, the range of possible forts that the remains could represent could be narrowed down to Old Road Fort. No other remains could be seen at this stage, although it must be noted that the presence of hotel buildings on the private grounds of the resort made further reconnaissance difficult.

In November 1999, Nevis was hit by hurricane Lenny, which caused considerable damage and destroyed many buildings on the Four Seasons site. In February 2000, in advance of fieldwork in May 2000, the Resort was revisited by the author, and the ruins of a small square building were located on land, located c.40m behind the underwater remains. Because of the hurricane damage, the Four Seasons Resort was undergoing a large scale re-development and was closed to guests. This offered an opportunity to examine the area, which would not be available when the hotel re-opened. The Resort planned to reinstate the sand beach, lost in a series of hurricanes, and it appeared likely that the underwater building would at minimum be buried and, in the worst case scenario, damaged or destroyed by this work, which was due for completion in July 2000. In addition to this, the Resort Manager informed the author of sightings of cannon on the seabed in the vicinity of the ruin.

Although many of the batteries were known to have guard houses and other structures associated with the gun platform, development and erosion had reduced many of the batteries to ruined sections of gun platform (e.g. Mathew Fort at the Golden Rock Pavilion), the strongest part of the battery and therefore the most likely to survive. The ruins at Four Seasons provided the only potential example of an examinable platform and associated guard house/magazine. The underwater situation of the ruins and apparent sighting of cannon suggested that the site was potentially undisturbed by later robbing, an activity all too prevalent on the island.

The Four Seasons Resort managers showed great interest in the structures and agreed to adapt the building plans to accommodate the onshore building as a historic feature, and also to monitor the deposition of sand on the underwater ruins to allow minimum disturbance. Archaeological examination of the site would be used to provide information for display boards and leaflets.

Therefore, for multiple reasons, the site provided an ideal location for archaeological examination. The site offered the potential to answer a number of important archaeological questions relating to typical fortification building on Nevis, which for reasons of access,

would not be available after summer 2000. The interest of the Four Seasons Resort in the remains provided a further stimulus for fieldwork, as any results would be publicised and actively used by the organisation thus raising the profile of other, more vulnerable, fortifications on Nevis.

2. Paradise Beach (CT00).

The site at Paradise Beach was identified in February 2000 after the walkover survey in May 1999 had failed to locate the site. It is probable that hurricane Lenny removed sand from the area, exposing the remains now visible in February 2000. The site, which lies approximately ½ mile to the north of the Four Seasons Resort on an area of (as yet) undeveloped beach, appeared very similar to the Four Seasons remains, with sections of masonry visible beneath the water c.40m out to sea, spreading over an area c.60m, from south to north. However, the shape of the material spread is more disparate, suggesting a more ruined state than the Four Seasons underwater site.

From documentary evidence and topographical information, it seems likely that the site represents Cotton Tree/St. Thomas fort, built under the auspices of Governor Johnson in 1704/5. This platform is of a similar shape and dimension as Old Road/Katherines battery, and is the next in the line of coastal batteries that run along Pinneys Beach from Fort Charles in the south-west, to Codringtons Fort on the north-west tip of Nevis. A team of maritime archaeologists would be necessary to undertake the Four Seasons work and, therefore, the examination of another underwater site would make the best use of this specialist resource, whilst it was available, and would provide good comparison with the Four Seasons investigation. Positive identification of the fortification would contribute to the sites protection, allowing the Planning authorities to decide whether, and to what extent, any future development on the site should be allowed.

3. Cotton Ground (AB00)

The site, located below Cotton Ground, to the north west of St. Thomas church, stands upon a low, heavily eroding, cliff (c.3m high) and represents two/three small, (c.3m x 3m) below ground, buildings and a series of associated linear earthworks running N-S and E-W along the cliff top for c.400m. The site is approximately ½ mile north of Paradise Beach, thus representing the next battery north from Cotton Tree Fort. This site was identified in May 2000, and from topographical and documentary evidence would appear to represent Coles Point/Abbotts Fort and Dukes Sconce Fort. Dukes Sconce fort was built in the mid-late 17th century and Coles Point/Abbotts, although of uncertain date, was repaired by Johnson in 1705. It is possible that both fortifications are, in fact, the same and that Dukes Sconce was renamed Coles Point/Abbotts in the late 17th/early 18th century. However, the presence of two sets of buildings c.200m apart on the cliff might suggest a repositioning of the fort in the early 18th century with Dukes Sconce being replaced by Coles Point/Abbotts fort.

The identification of the site was further enhanced by the discovery that there had once been a cannon (which had been removed, by the University of The West Indies, in the 1960's) at the northern end of the cliff near Building A. In 1989, metal detecting, by members of the Nevis Historical and Conservation Society, had located a section from another, broken, cannon and cannon ball in the same area (Hubbard 1989).

This site provided an opportunity to examine a different fortification environment to that at Four Seasons and Paradise Beach. The situation upon a cliff required the fortification design to be adapted to that particular environment, and from Johnson's plans of 1706, a square, redoubt like construction was chosen. In documents and maps from the 17th and 18th centuries, a defensive line/trench is shown running the length of the western coast, just to the west of the coast road. The linear earthworks present below Cotton Ground run from the beginning of the cliff, just north of Cotton Tree, and would appear to connect to the present coast road further north at Cotton Ground. This earthwork showed evidence of a well built revetment or wall on

either side of a flat bottomed, slightly sunken feature c.7-9m wide, reinforcing the interpretation of the feature as a coastal road and possible defensive feature behind the forts.

The presence of the buildings on the cliff edge to the west of this feature suggest that the possible road/line provides a boundary between the domestic zone inland and the military zone on the coast, the remains of the road providing the opportunity to fix in the land the limits of plantation and military activity. The road, although appearing to be a delimiting boundary, probably also represents the fusion of these two zones as it would have been used for domestic purposes in peace time, but would also have served as a communication and supply route, between the forts, in time of war. One/two of the three buildings are actually exposed in the cliff section and the third lies only a few metres from the cliff edge. In several places the earthwork had been lost over the cliff, as hurricane storms caused the erosion of the soft pyroclastic cliff. The rapid erosion of this site made an immediate survey of the area essential. Indeed, it would appear that the fort/s proper had long since gone over the cliff and the small buildings were the remains of powder magazines located to the rear of the forts. However, the two small buildings at Area B, may represent a single building, the connecting wall between the two features having fallen into the sea.

The Historical Background

From primary sources and from more general texts concerning the defence of Nevis, the three forts under examination can be placed within a framework of developing (and declining) defence on Nevis from the 17th to 19th centuries.

The first fort on Nevis is mentioned by Chief Gunner John Hilton (Harlow 1925). In 1629, the Spanish had attacked Nevis and Hilton states: '...in comes ye Spanish Armado about Pellican Point which fort fired at them...we had one great gune which we had placed upon Pellican Point'. This fort, later to become Fort Charles, is likely to have been built from turf and wood similar to that, described by Hilton, at St. Christopher: '...a fort of palledoes with flankers and loopholes for their defence' (Harlow 1925), and from Hilton's account only had a single gun, probably the only one on Nevis. Evidence for this early period of Nevis military history is scarce and it would appear that from this time until the mid 17th century, when sugar production started in earnest, that Nevis was defended only by a handful of small structures built in turf or wood (the stone built Newcastle Redoubt apparently the exception, rather than the rule), with little or no cannon and very few soldiers, apart from local militiamen. By the late 1660's mention of the forts becomes more frequent and, in April 1664, the Assembly of Nevis requests that the taxes should be put into maintaining forts and guards (CSP No. 732, 29/4/1664), a request accepted by the English Government.

The 1670's appear to have been a time for much fort building on Nevis. By 1671, there are five small fortifications on Nevis, including Dukes Sconce and Old Road fort, and in that year Governor Charles Wheler started construction in stone at Fort Charles, the most important and strongest fort on the island. At this time, Dukes Sconce and Old Road were probably still primarily turf and wood structures with only a few cannon each: the Lions share of resources and cannon going to Fort Charles on Pelican Point. By this date a defensive line/bank had also been constructed along the length of the western coast. By 1676, it appears Old Road was deemed more important than Dukes Sconce and received over twice the number of cannon than that fort. By November of that year, it appears balance has been achieved with both forts now having four cannon each. However, Old Road has 14 barrels of powder and Dukes Sconce only ½ barrel suggesting that Old Road must have had some form of storage building/magazine, and would therefore be of more importance than Dukes Sconce.

By the 1680's the forts are in need of repair. Old Road Fort, Black Rock Fort and Charles Fort are repaired and Black Rock and Old Road are given twenty barrels of powder and a standing

guard each. Charles Fort, Old Road fort and Black Rock fort would appear to be the most important of the Nevis fortifications with Fort Charles dominating above the other two. In 1688, Old Road fort is given new platforms (wooden rafts that the cannon were placed upon within the battery) and by November of that year, like Black Rock, Sessions House platform and Charles Fort, Old Road was rebuilt in stone and lime. Through this change from turf and wood to stone, in the 1670's and 1680's, the fortifications echoed the prosperity of the island's sugar economy in the late 17th century; a symbiosis which, for good or bad, would exist until the late 1800's.

By the turn of the 18th century, the forts on Nevis had become more permanent in nature but, as Governor Christopher Codrington III states, a lot had still to be achieved. Codrington describes the forts as '...poor little platforms and ill provided with artillery' (PRO CO 153/6, 13/10/1699). This suggests that at this stage, despite Nevis having seven forts/batteries and platforms, an effective defensive network had not yet been realized. A further description by Codrington, in July 1701, shows that the forts were desperately in need of cannon with Old Road Fort and Dukes Sconce having a few mismatched and poor quality cannon. For the first time, Cotton Tree appears, as a gun emplacement. However, although the advantageous position appears to have been noted, no fortification has yet been built on the site.

In July 1703, John Johnson, a soldier, grenadier and engineer, (who had served in Flanders and at the Battle of the Boyne in the late 1690's (Constable & Co. 1928)) was made Lieutenant Governor of Nevis. Under Governor Codrington's patronage, Johnson's rise to this position had been fast; in March of that year he had arrived in the Caribbean as a Captain and had risen to Major and then Colonel within a month. Clearly, Codrington thought he had potential, a fact born out in his fortification work on Nevis. Between 1703 and 1706, Johnson repaired and built twelve fortifications on Nevis. He also usefully sent descriptions of the forts along with plans of each and a map of Nevis home to England. Although the map has not survived, the plans and descriptions have, allowing the placing of the structures in the landscape.

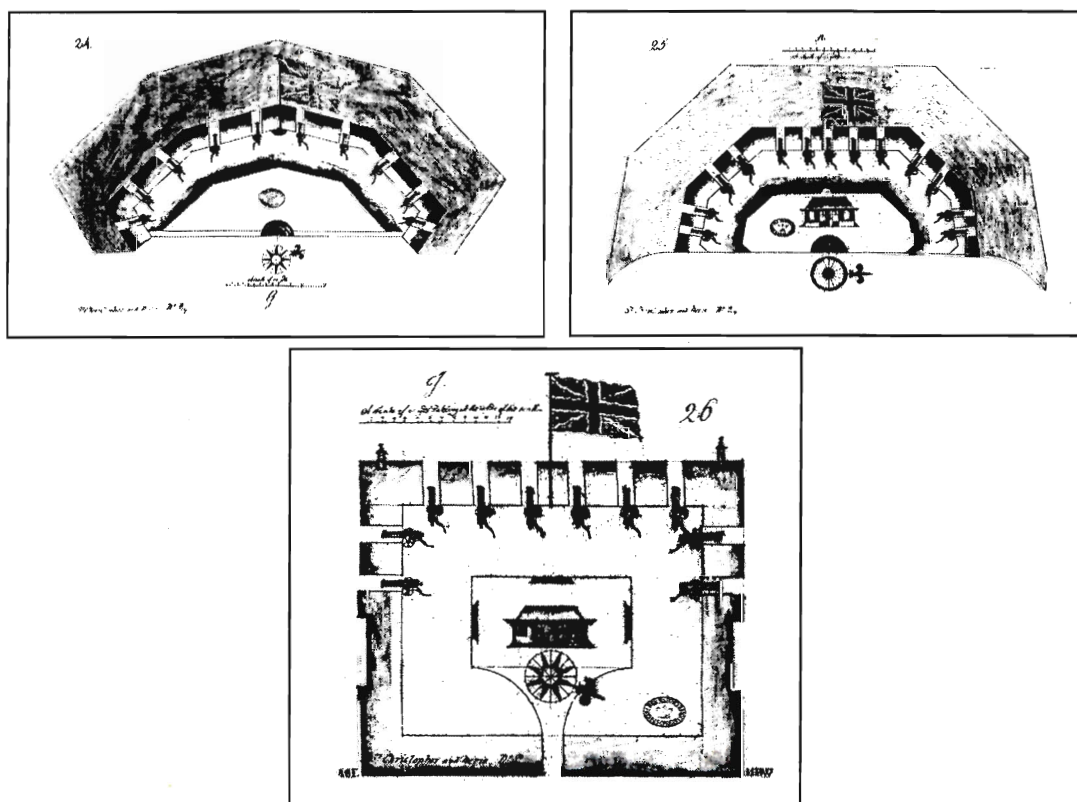


Fig. 2.1: Governor Johnson's plans of Old Road (top left) Cotton Tree (above right) and Abbott's (below centre) Forts, 1705

By 1704, with Johnson now as Governor of the Leeward Islands, the forts are nearly finished with Cotton Tree the only fort yet to be completed. Built from shaped and faced stone and lime, these batteries were the most considerable ever constructed on the island and form the majority of the early 18th century structures which survive to the present day. The forts were linked by a defensive bank and ditch and also had spurs between each fort capable of holding many soldiers.

At Old Road a new battery was built close to the sea and at Coles Point/Abbotts the fort (possibly Dukes Sconce) was repaired. A new fort was built at Cotton Tree. The forts were reasonably well armed, but would appear to have never received their full compliment of cannon (Fig. 2.1).

In 1706, Johnson's forts were put to the test when the French attacked in February and March of that year. The February attack was successfully repulsed, apparently due to the effectiveness of the coastal batteries on the western shore of Nevis, particularly Old Road, Cotton Tree and Coles Point forts. However, when the French returned in late March, realizing that attack to the west was futile, they split their forces and, whilst maintaining attack on the western coast, landed some of their men at the south of the island, taking the commanders stationed there by surprise (PRO CO184/1/19, 22/4/1706). Nevis was sacked and sugar estates, warehouses and forts, were destroyed by the French. It is probable that cannon were disabled and many good guns were stolen and taken to the French area of St. Kitts. Johnson's replacement, Governor Daniel Parke, reported that all the cannon and stores on Nevis had been destroyed in the raid (PRO CO153/9, 15/7/1706). By the end of 1706 Parke tries to get the Nevisians to repair their forts and defences but they refuse (PRO CO152/6, 9/12/1706), the toll of 1706 had been too great. By 1707, the situation is still desperate with Old Road having only one cannon and Cotton Tree and Coles Poynt' having none, only one or two cannon being present at many of the other batteries. Although Fort Charles seems to have been repaired after the attack, many of the other forts appear to have been left to fall to ruin, with little or no repairs.

Twenty years later, in 1727, the demi-culverin mentioned in 1707 has become dismounted and Coles Point still does not have any arms. Cotton Tree is not mentioned, and by 1734 the same picture is confirmed. By 1769, mention of only three alarm posts is made apart from Black Rock and Old Road forts and a description of 1773 describes the western forts as ruinous and only used in a few cases for alarm guns. The majority have been abandoned. In 1777 three small new batteries are built and it would seem likely that one of these, taking advantage of the positioning utilized by the earlier forts, would have been constructed on or around the Old Road/Cotton Tree area. However, all three only have very small field guns, not capable of sustained defence.

In the 1860's, with the sugar industry in general decline, the majority of forts have vanished and the remainder are used for customs purposes rather than as military structures. In 1877, Nevis became a crown colony and defence was handed over to the British: from this time the few remaining customs forts fell into ruin to become the remains visible today, the earlier forts had been abandoned for over one hundred years by this date.

Archaeological Techniques

The work was carried out over a two-week period by three teams of two people, working concurrently at each site. Each of the sites are situated in very different topographic settings and therefore a range of techniques was used included land based and underwater theodolite survey, trial excavation and video, and photographic and drawn recording. Excavation was planned for only one of the sites: the onshore building at Four Seasons and, as little stratigraphic evidence was likely, total excavation of the interior was planned to retrieve

design, construction and possibly dating evidence. The entire building was drawn in plan, section and elevation and a detailed photographic and contextual record taken. The underwater remains were surveyed by theodolite and all sections of masonry recorded in plan with representative section drawings being made. An underwater photographic and video record was made of the structures located. Paradise Beach was surveyed underwater and a taped plan made of the features present. A photographic record was made of certain features on the site. At Cotton Ground, detailed survey of the features was undertaken and it was decided by the team, at that site, that Building A should be trial trenched to establish the nature of the structure and its environment. A full drawn, contextual and photographic record was also made of the two/three buildings identified.

Preliminary Results of May 2000 Fieldwork

a) Old Road/Katherines Fort (OLR00)

This site, located in the centre of the Four Seasons Resort beach, comprises two structures: the remains of a small square building on land and sections of masonry underwater c.40m offshore. This area has been heavily landscaped during the construction of the hotel and apart from a few plantation buildings incorporated within the complex, no other historical or landscape features can be seen in the vicinity. Due to this landscaping, the original ground level is impossible to ascertain although a slightly lower level, than at present, appears likely if compared with the surrounding country. The underwater remains were surveyed both with tape and theodolite and representative areas were photographed and drawn. A video of all underwater features was also made. The onshore building was fully excavated by quadrant and E-W and N-S sections were taken across the interior. All walls, both on the interior and the exterior, were drawn in elevation and a full contextual and photographic record was made. For ease of comparison, and due to the lack of fine detail, all illustrations were made at a scale of 1:20. Inundation by the sea caused many problems during the excavation of the building, leading to the collapse of many sections and the subsequent adaption of the excavation strategy (particularly the retention of a baulk) to accommodate such problems. However, it appears that the whole structure has been regularly inundated by the sea and no contemporary deposits were encountered.

i) The onshore building

This small building, located on the sea edge c.125m south of Beachcomber restaurant, comprises a complete length of eastern wall and incomplete northern and southern walls (Figs. 2.2 and 2.3). The southern wall survives, having fallen north into the interior of the structure. The aims of the excavation were to locate evidence relating to the construction of the building, to ascertain (through the removal of the overburden over the collapsed southern wall) the dimensions of the building and, if possible, to retrieve dating evidence. In the first instance, the whole area was cleaned of modern debris and the north eastern quadrant was excavated. It soon became apparent that the whole interior had been recently filled, by the sea, with beach sand (Context 100), thus removing any stratigraphy from the interior of the building. The sand was therefore shovelled away, quadrant by quadrant, to expose the floor and collapsed southern wall. The base of the structure was reached 1.5m down from the top of the wall and natural sand deposits were located beneath. N-S and E-W sections were drawn to detail the depth of the sand deposits and to show layering within the deposits. Geological samples, to enable analysis of the deposits' formation, were taken from identified layers within the deposits. Results for this analysis are not yet available.

The eastern wall (Contexts 102 and 112), which survives to a maximum height of 2.1m on the interior and 1.2m on the exterior, is 4.7m long on the exterior, 3.3m on the interior and 0.7m thick (Figs. 2.2 and 2.3). This thickness of the wall has been reduced by the loss of the exterior facing and, as built, would have probably measured 0.8m, thus adding a further

c.20cm to the exterior length of all walls. Above Context 102, the presence of Context 112 (a course not bonded with the lower courses) would suggest a later rebuilding of the wall at the top levels. This course, seen also in the southern wall, may also represent the vestiges of an upper floor/roof level.

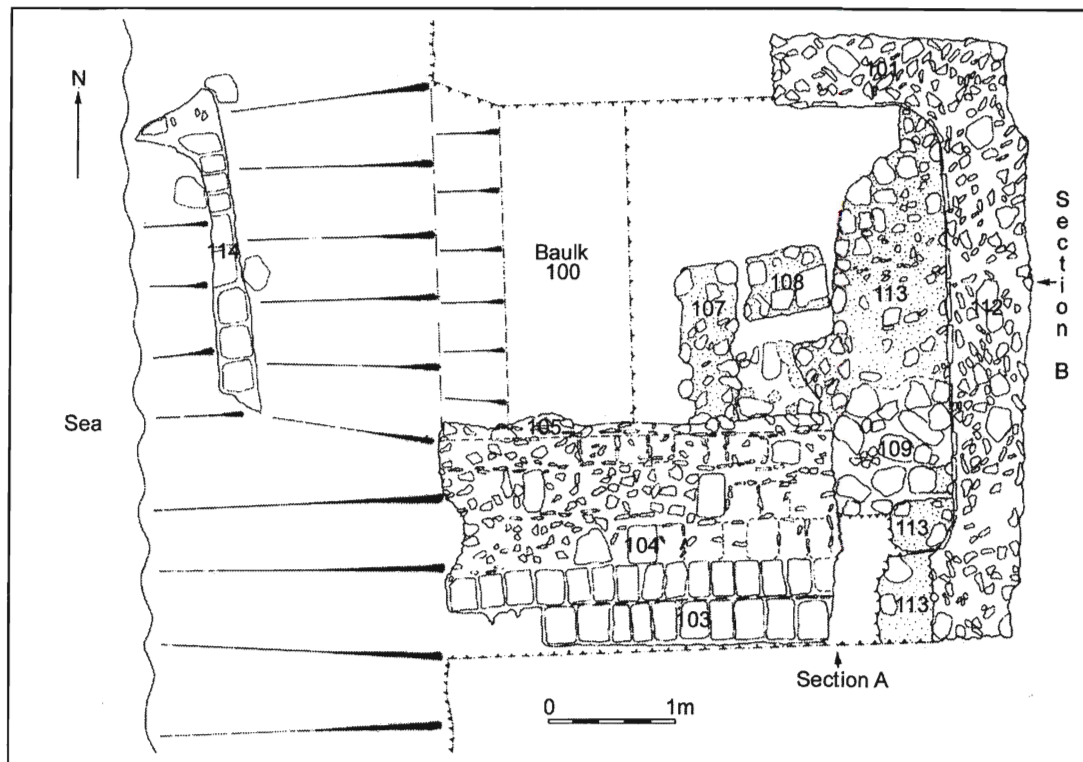


Fig.2.2: Site plan of Old Road onshore building

The southern wall (Contexts 103, 104 and 105) only survives as a collapsed section of masonry, apparently at least 1.8m high by 3.2m long on the exterior. If added to the corner now standing, an exterior measurement of at least 4m can be given. The northern wall (Context 101) survives to a length of 1.95m on the exterior and 1.2m on the interior. The rest of the wall has not survived, probably removed by hurricane seas. Lying in the surf to the west of the building a small section of masonry (uncovered gradually by the sea during the course of excavation) shows evidence of a curved corner (Fig. 2.2). This masonry (Context 114) probably represents the north west corner of the building which has been overturned and moved from its original location.

The interior face of the standing walls survives almost intact, with 7/8 courses of squared faced stone blocks of between 20-40cm x c.25cm in size. In between the blocks, any ill fitting stones have been supplemented with small (c.5-10cm x c.2-3cm) slivered stone chips (probably from the working of the larger stones), inserted into the grouting to avoid large expanses of mortar. The corners of this structure are curved on the interior, seamlessly continuing the coursing on all three standing walls.

The exterior of the standing walls has been robbed of all facing stones (Fig. 2.4), with only the mortar and rubble core remaining. However, the exterior of the collapsed southern wall shows regular, coursed, faced, stone blocks (Fig. 2.2) of the same type visible on the interior surface of the standing walls, suggesting a well faced building both externally and internally. It is difficult to ascertain whether the curved corners, seen on the interior, were also originally present on the exterior, however the right angled profile of the surviving core would suggest that this is unlikely to have been the case.

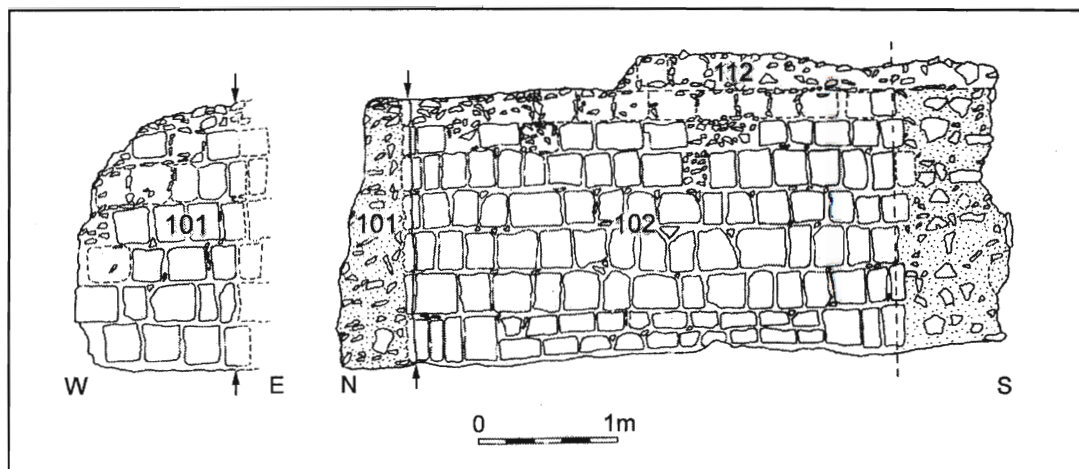


Fig 2.3: Interior elevations of walls 102 and 101

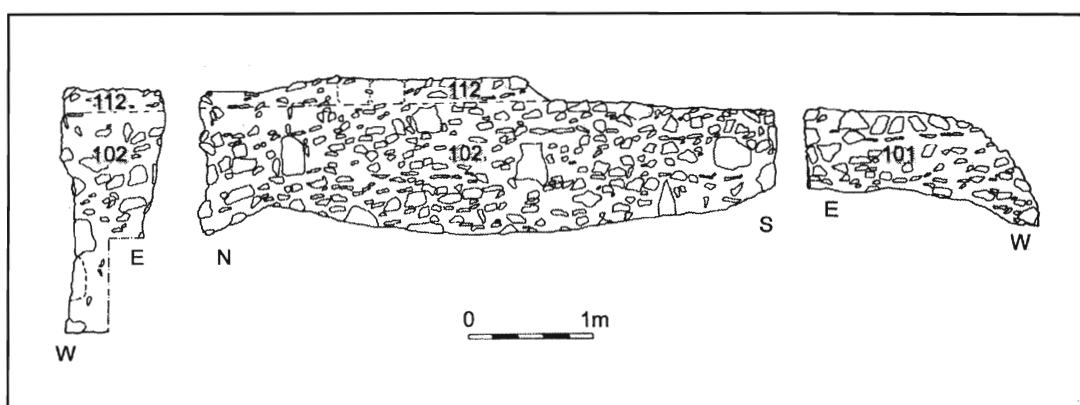


Fig.2.4: Exterior elevations of walls 101 and 102

Upon removal of the north eastern quadrant, at a depth of 1.5-1.7m down the wall (0.5m below ground level), a solid stone rubble and mortar floor (Context 113) was encountered. This floor proved to be 0.3m thick and extended up to 1.2m out from the length of the eastern wall. To the west, this feature appears to have been removed by the sea along with the entire western side of the building. This floor contained larger (c.10-20cm diameter) stones in its upper levels, whilst the lower 10-20cm comprised mainly small stone aggregated mortar. Context 109, an area of stone rubble and sand appears to have fallen into a gap in this feature and contained modern glass.

The removal of sand covering the southern wall provided evidence (Fig. 2.5, Section A) for the method of construction of the building. Within this section, four contexts could be seen. The first, Context 115, although apparently similar to the floor context 103, showed evidence of a lighter grey mortar with an exterior facing stone bedded into it. This context joins Context 103 to form the floor of the building, apparently incorporated into the wall construction. Above these levels Context 104 represents the wall proper with Context 105 possibly representing a later course to the wall similar to that seen in the eastern wall in Context 112.

From the evidence above, it seems likely that the building was constructed as follows. A large square hole was excavated into the sand over the trace of the building. The building was then marked out and a single course of exterior mortared facing stones laid to provide a 0.3m deep walled enclosure. This enclosure was then filled with mortar and rubble, finer on the lower levels and with larger stones added to provide the upper surface. The walls were then constructed directly onto the floor platform.

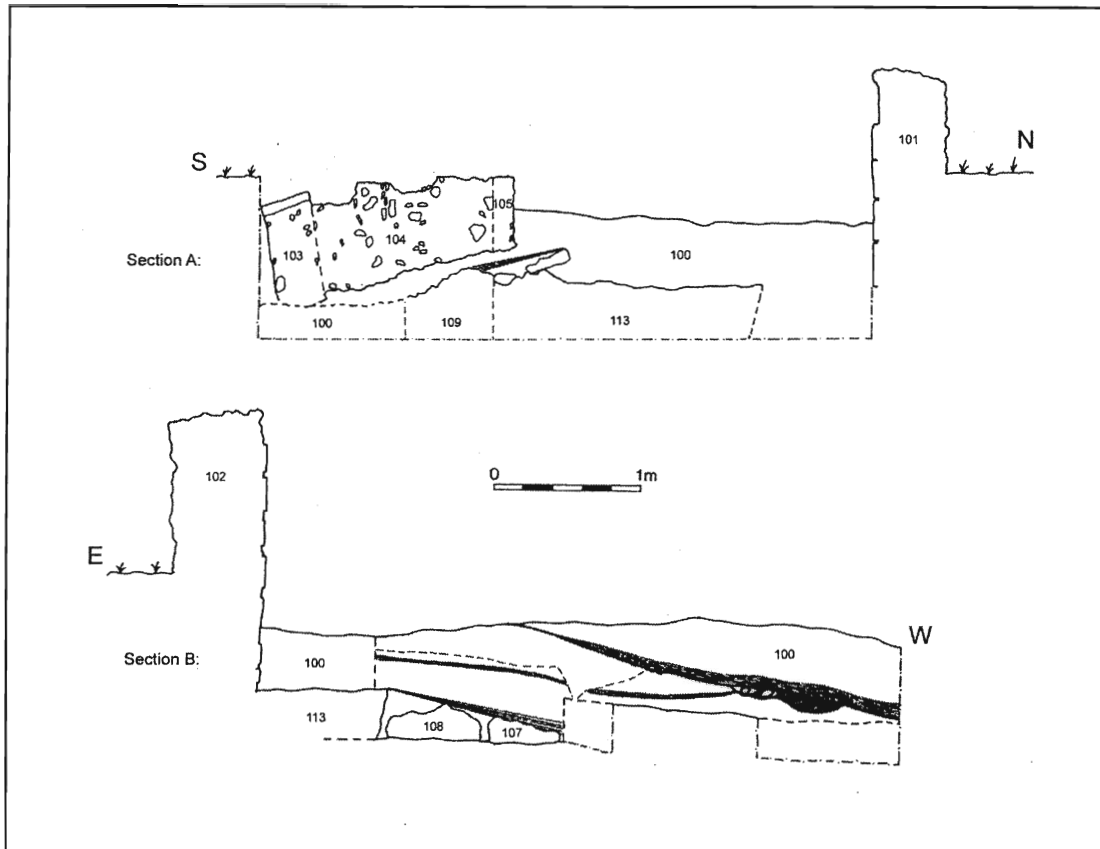


Fig. 2.5: N-S and E-W sections across Old Road onshore building

From excavation, it is apparent that the whole structure did not have wall foundations and was laid directly onto the sand beach. However, the thick floor level would have acted similar to a wall foundation providing stability for the structure in such an unstable building environment. However, when hurricane sea reached the site, the sea undermined the sand thus leaving the western side of the structure high and dry, causing the building to effectively 'snap' in half: the eastern floor remaining intact, thus preserving the eastern walls.

In talking to local people, it soon became apparent that the destruction of the building had only occurred within the last 10-15 years. Successive hurricanes, since that date, had then eroded and further damaged the structure. The building, when standing, was described as square, suggesting c.5m x c.5m original dimensions. There was an arched door on the eastern end of the southern wall leading into a narrow ('person width') corridor which ran the length of the eastern wall. From this corridor a well-finished, arched, door led into the main room which comprised the rest of the building. The building did not have windows and was not known to have been roofed at this time (Stedroy Wilkenson, pers. comm.).

Interpretation of the onshore building

From excavation, the remains of a small (c.4.7m x c.4m) building have been located and from local testimony, a description of the standing building has been uncovered. This building lies close to the gun platform now lying beneath the sea at the Four Seasons Resort. It would appear unlikely to have served a domestic purpose due its small size and location and therefore a military use is postulated. However, the difference in construction techniques and more accomplished and, indeed decorative, appearance of the walls could suggest a different usage, possibly as a domestic structure.

The evidence would suggest the structure was built with a below ground floor level, (although this interpretation is not certain) echoing the structures located below Cotton

Ground to the north. In these cases, use as powder magazines/guardhouses has been suggested. However, the building at Four Seasons is markedly different to these structures.

In the first instance, the Four Seasons building is larger than the three buildings at Cotton Ground and shows a very different building style to that seen at the other site. The wall faces at the Four Seasons building appear to have never been plastered, with the accomplished stone work providing the face. The detail, such as the curved corners, and great care taken over the stonework suggests a less functional construction than those seen below Cotton Ground. The floor at the Four Seasons building is also much thicker and more consolidated which, taken in conjunction with the walls, suggests a stronger, more solid building than those seen below Cotton Ground.

These differences could be explained by a different workman, or the whim of a particularly artistic designer, however this appears unlikely. The most feasible explanation is that the building is of a different date to the other structures to the north and, when compared to them is probably later. However, the below ground floor level, absence of windows and internal layout of the building, if taken in conjunction with the thickness of the walls and small size of the structure may still suggest a military purpose.

If it is assumed that the gun platform was constructed in 1705 and ruined in 1706, the building on shore must date to after this time. The stonework on the building compares favourably with other late 18th century examples on Nevis (e.g. Bath Hotel 1778, Fort Charles, Clay Ghaut Windmill 1785, Coconut Walk Lime Kiln, etc.), showing the less refined stonework which would later be developed into ashlar block coursing in the 19th century.

In 1777, Governor William Mathew Burt built three new batteries on the western coast of Nevis including one called Pinneys Battery (PRO CO153/23, 6/10/1777). John Pinney, owner of the Montravers estate describes this battery: '...I have obtained leave to raise a battery of three guns at the foot of my estate, where I shall keep all winter a nightly watch' (Pares 1950).

In November 1999, Hurricane Lenny uncovered Mathew's fort (dated 1705) located directly west of the Pinney's Montravers estate. Remains of a small square building (at least 4m x 4m) on top of the earlier fort (1705) could be easily seen. The hurricane also uncovered a further small square (c.6m x 6m) building on top of the earlier Johnson's Fort (1705). It is possible that these small buildings represent two of the three batteries built by Burt in 1777, with Pinneys Battery being present at the Mathews Fort site.

Built on top of the earlier forts, these buildings would probably have provided shelter for the militia/soldiers and would also have served as magazines for arms and ammunition. The gun batteries themselves were placed before these buildings and almost certainly comprised earthen banks. It is possible that the Four Seasons building represents the third battery, built on the site of the older fort and thus using the advantageous position utilised earlier in the century.

The reference to the battery, in 1777, by John Pinney, suggests that these three new batteries were built by the individual plantation owners along the coast. This may explain the elaborateness of the Four Seasons building and the slightly different size of all three square buildings on the coast: the discrepancies being the result of different workmen and, possibly, differing wealth and aspirations.

ii) The underwater gun platform.

The underwater remains spread over an area of c.25m by 20m, running parallel N-S along the beach, c.40 south east of the onshore building (Fig. 2.5). Nine sections of masonry were discovered surrounded by a disparate 10m spread of rubble debris, derived from the ruined structure. The site was systematically examined underwater and then a taped and theodolite



Plate 2.1: Old Road gun platform, May 1999

survey of the remains found was made. All of the wall sections discovered were constructed with irregular, rounded stone facings with a rubble and mortar core. Six of the masonry blocks showed evidence of a step on the outer wall face. This step is similar to that seen in Mathew's Fort at the Golden Rock Pavilion. All the wall sections appear displaced, however, the presence of all exterior steps on the western side of the wall fragments suggests that the general orientation has been preserved.

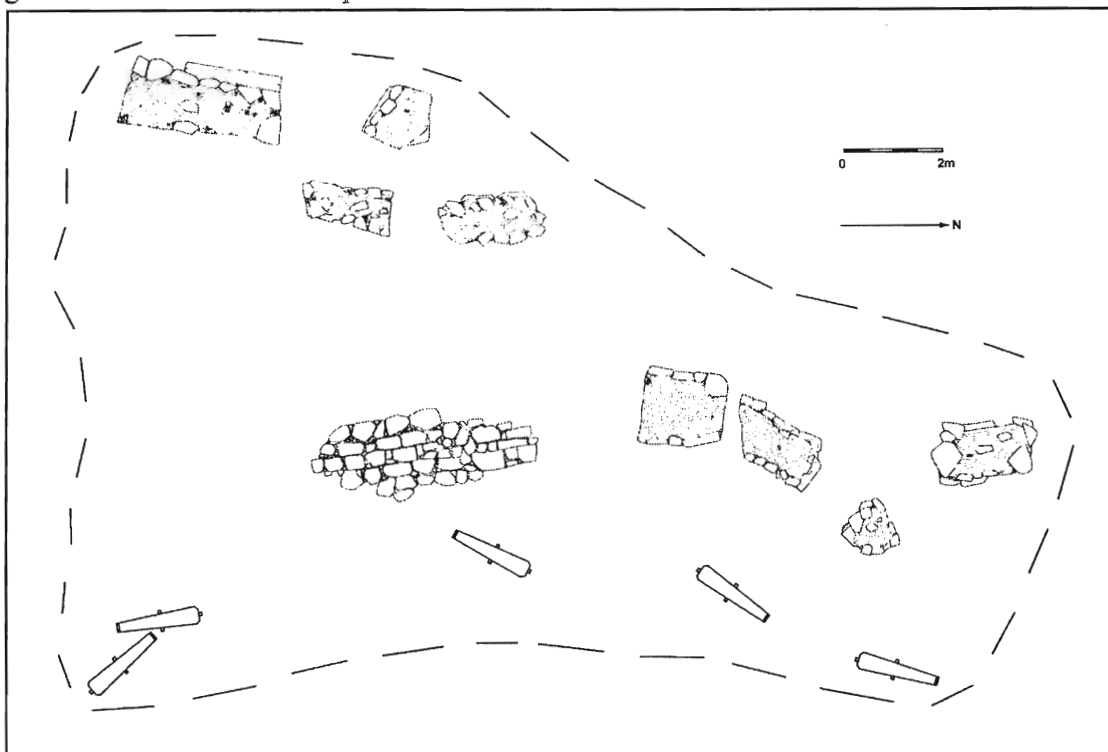


Fig. 2.6: Underwater site plan

The stone work present mirrors that seen at other Johnson built, 1705, forts (e.g. Cotton Tree, Mathew's fort) with the largest section of wall (Fig. 2.7) showing an angle which exactly matches the front angled wall shown in Governor Johnson's plan of Old Road/Katherine's fort from 1705 (Figs. 2.1 and 2.7).

Five cannon were located on the site, lying within the confines of the fort, i.e. to the east of the wall sections. These cannon have yet to be positively identified but it would appear that four cannon of a similar type and one of a larger variety are present. At least one had the muzzle blown off and two others appear to have lost either one or both trunnions.

In the 1980's a boat, ran aground in front of the Four Seasons Resort and, in the process of freeing the vessel, a cannon was dredged from the water. This cannon was a 6lb or 9lb Swedish Finbanker of 7'6" in length. The cannon appears to be of late 17th/early 18th century date. It is almost certain that this cannon came from the vicinity of the fort. The date for the cannon would match the date for Johnson's Katherine's Fort of 1705.

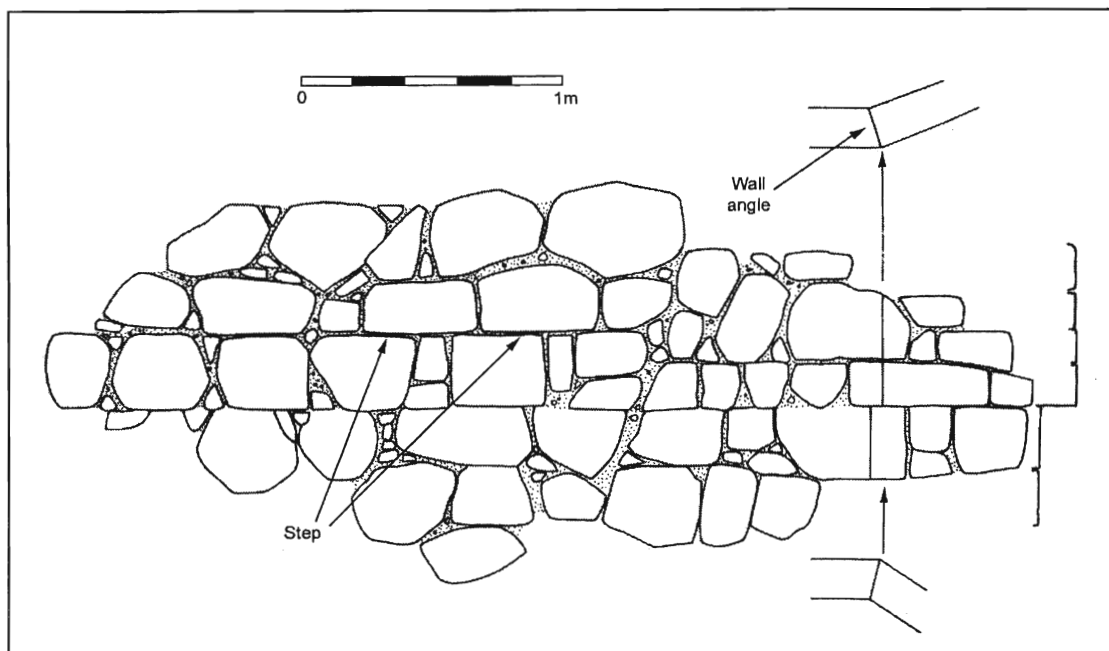


Fig. 2.7: Detail of masonry section showing wall angle of underwater gun platform at Old Road Fort

Discussion:

The remains located underwater at the Four Seasons Resort prove the presence of a fort. This fort has further been positively identified as Old Road/ Katherine's Fort, built by Governor Johnson in 1705. The presence of five in situ cannon is extremely important. Like Cotton Tree fort (see below) the fort would appear to have been abandoned at an early date after suffering damage by the French in 1706. It would appear from the damage suffered to the cannon that an element of sabotage (i.e. the removal of trunnions) by the French, can be suggested (see Historical Background). The identification of the cannon would further support this interpretation if they prove to be solely of late 17th/early 18th century date. The presence of a later building on shore behind the gun platform would suggest a connection between the two structures over a number of years. The precise nature of this relationship has yet to be positively identified and further research will be necessary to elucidate this problem.

b) Cotton Tree/St. Thomas Fort (CT00)

The site, located on Paradise Beach, just to the south of the road leading down to the sea beside St Thomas' School, on a flat area between two elongated hills (created by volcanic flows) on the NE and SE. Although numerous large blocks of masonry can be found on shore in the vicinity, these appear to be the result of hurricane seas and no on land structures could be located at the site.

The gun platform lies c.40m out to sea and can be seen as a rubble spread over an area of c.490m² (Fig. 2.8). This site was examined over a two day period and a taped plan made of the remains. Underwater photography was also taken of the relevant features.

The underwater remains comprise a rubble spread some 35m by 14m, orientating NS, parallel to the coast. Only one section of substantial masonry survives, standing to a height of approximately 1.5m, with the tip occasionally exposed above water. This masonry block appears to be lying on its side, having fallen westwards. The southern face (Fig. 2.9) slopes north beneath the block, suggesting an apparently angled section of wall or corner such as that at Old Road Fort. This wall is faced with coarsed irregular stone blocks apparently with a mortar and rubble infill. Due to seaweed and the difficulty of access to the wall face, it is impossible to ascertain whether the outer face was mortared or not. Around the masonry block, four parts of cannon were located comprising two rear ends and two muzzles. One of the cannon was larger than the other three pieces suggesting that the remains of at least three cannon were present on the site. All the cannon appeared 'snapped in half', with the apparent absence of at least two other halves, suggesting the presence of more, possibly buried, fragments in the vicinity. As yet the precise identification of the cannon types and dates is unknown and further research and expert advice will be necessary to elucidate this problem. From current knowledge they would appear to be of 17th/18th century date.

Discussion:

From historical sources, Cotton Tree/St. Thomas fort is known to have existed on this site. Located 575m to the north of Old Road fort, 650m south of Buildings B and C and 825m south of Building A, this fort would have been the intermediate fort between the two others.

Built new in 1704/5 this fort, like Old Road, appears to have been constructed as an angled crescent shaped gun platform. The dimensions, from Johnson's 1705 plans, were c.38m from north to south and c.15m from east to west. These dimensions almost exactly match the dimensions of the rubble spread now visible. This evidence, along with the cannon finds, suggests that the remains present certainly represent a fort and that the fort was Cotton Tree/St. Thomas.

It is difficult to establish how the fort became so massively ruined, although hurricane seas have obviously played a large part in the destruction over the years. However, Old Road fort to the south does not appear to have sustained as much damage as Cotton Tree and the almost entire absence of masonry and the broken cannon, if taken in conjunction with historical information, may provide a far more immediate, and violent, answer. From historical evidence, it is known that Cotton Tree (along with Old Road and Abbotts/Coles Point) took the brunt of the French attack in February of that year. When the French returned in March, eyewitness reports describe four forts having been seized and that there was '...much fire and smoke, which being over was discern'd two French flags flying in two severall forts' (PRO CO153/9, 6/4/1706). Another report describes the Nevis forts being 'demolished' (PRO CO153/9, 28/7/1706) with four of the best platforms taken by the French (PRO CO152/6, 3/6/1706).

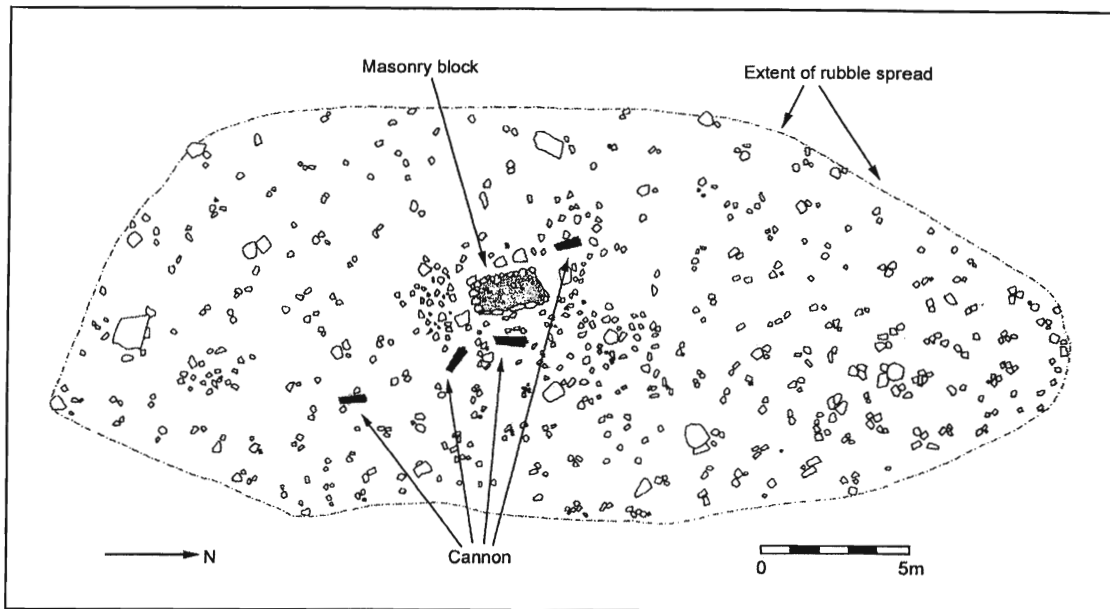


Fig. 2.8: Site plan of Cotton Tree fort

One year later Cotton Tree has no usable cannon and from this time appears to vanish from the records as an active fort. By 1727, it does not even merit mention in a fort account of that year. Coles Point has also been ruined. It is possible that the fort was abandoned after being destroyed by the French. This would explain the excessively ruinous state of the remains and the broken cannon, which would have probably been blocked and fired by the French to destroy them. This theory cannot be proved or disproved. However, the identification of the cannon would add weight to such a theory, should they be of a date prior to 1706. More research will be necessary to elucidate this problem.

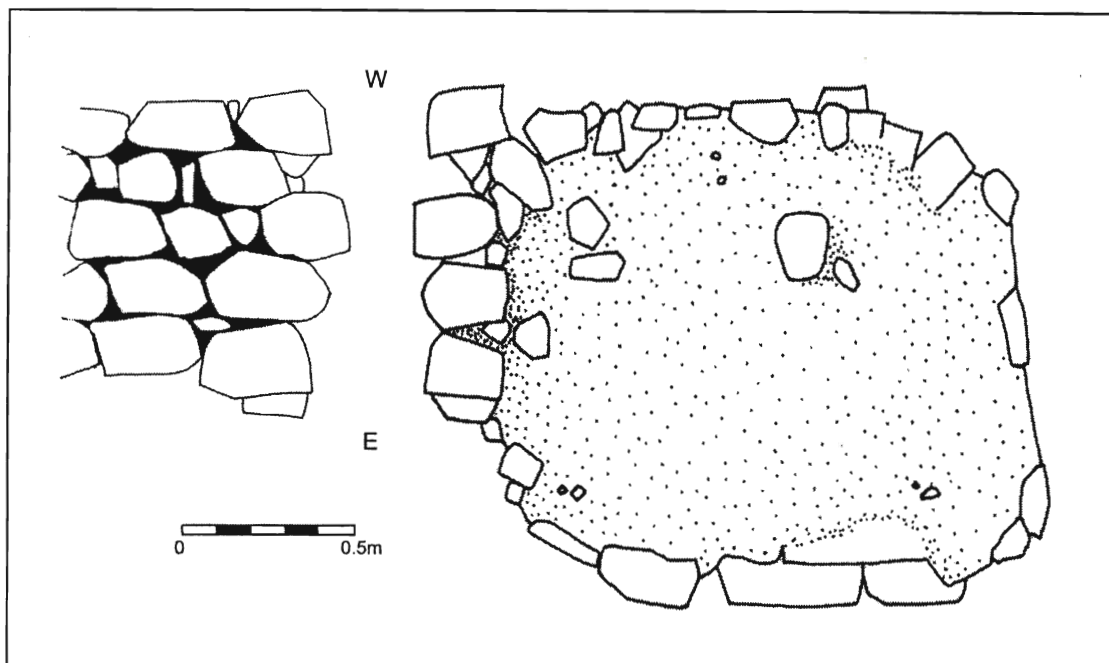


Fig. 2.9: Elevation (left) and plan (right) of masonry block at Cotton Tree Fort

c) Dukes Sconce and Abbotts/Coles Point Fort (AB00)

As mentioned above, the survey area examined below Cotton Ground extends a length of c.375m from the ravine to the north east of St. Thomas church to the southern boundary of the

Montpelier Beach Property (Fig. 2.10). Two/three buildings and a series of linear earthworks were surveyed, drawn and photographed. Cliff section drawings were also made where appropriate.

The line of earthworks continues a further $\frac{1}{4}$ mile north from Montpelier, crossing the gardens of a private home and finally joining up with the current coast road at Cotton Ground. However, restrictions in time and manpower did not allow for the examination of this feature north of Montpelier and the survey concentrated on the range of features to the south of Montpelier, stopping at the E-W ravine running just north of St. Thomas Church.

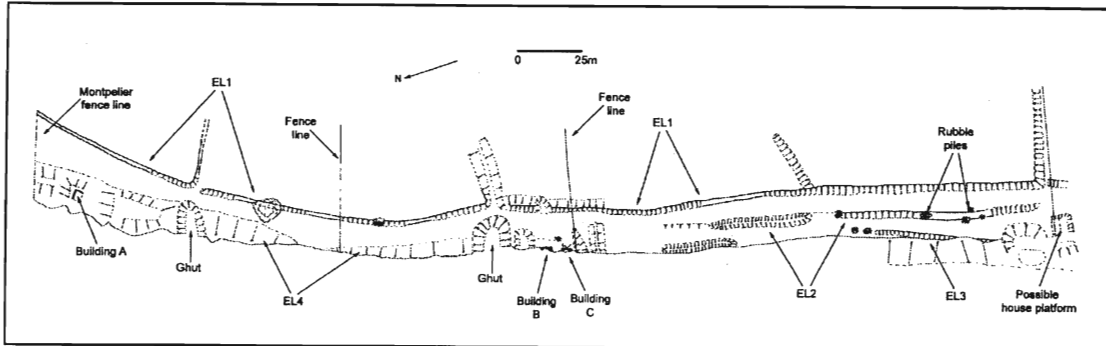


Fig. 2.10: Plan of earthworks and buildings below Cotton Ground

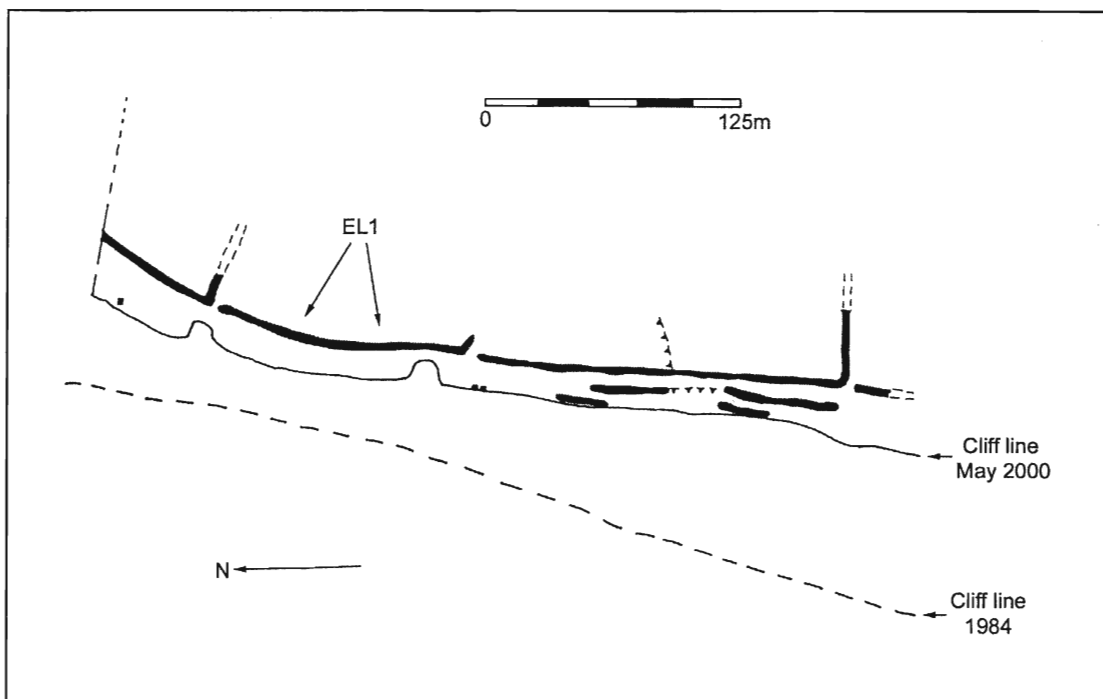


Fig. 2.11: Plan showing loss of cliff between 1984 and May 2000 below Cotton Ground

The area slopes down from the coast road to the east, but flattens near the coast to a plateau, c.70-100m wide along the length of a cliff, c.3m high. This plateau rises slightly to the south and, at the southern extent, is covered in scrub vegetation with some small trees on the coastal side. At the northern end of the survey area, at Coles Point, is a slight promontory. Two guts puncture the coastline in the centre and north of the cliff. This cliff is rapidly eroding with at least 1-2m being lost between the walkover surveys of May 1999 and February 2000. From comparison with a series of OS 1:2500 maps, between 25-75m of cliff has eroded between 1986 and 2000, an average rate of 1.8-5.4m per year (Fig. 2.11).

i) The earthworks The earthworks surveyed run N-S from the Montpelier fence line, with four E-W sections running off the line at regular intervals. At the southern end of the area three parallel N-S earthworks can be seen running 5-7m apart from each other. The area between the earthwork lines shows evidence of a slightly flattened depression (Fig. 2.10).

Earthwork Line (hereafter EL) 1, runs the entire length, some 375m, of the cliff, about 20-25m from the cliff edge apparently continuing southwards across the ravine. This 1m high bank, shows evidence of being constructed in stone with a large percentage of the line comprising a 1.2-1.4m wide, well constructed wall/revetment. This revetment/wall is often faced on both sides, but more usually the facing only survives on the eastern side. This bank/wall is punctured by four apparent E-W 'access' breaks, defined by earth and stone banks/walls (Plate 2.2).

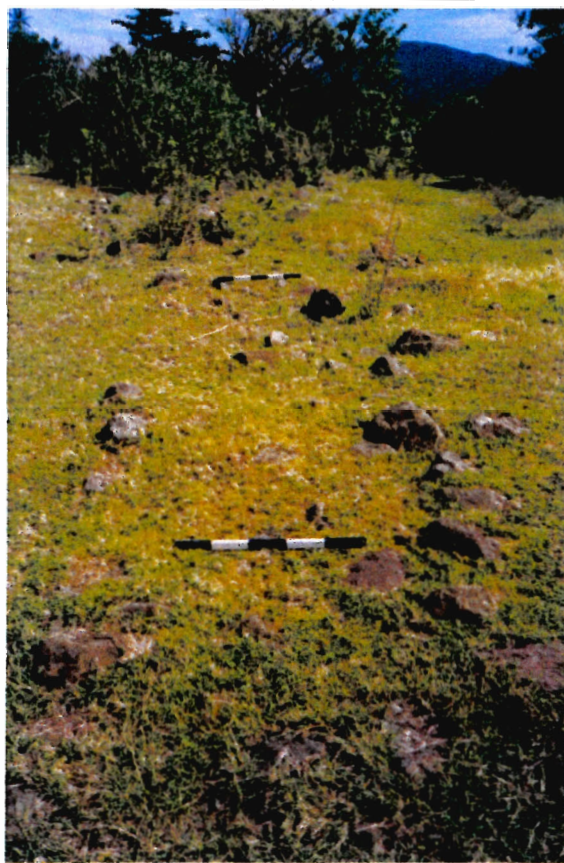


Plate 2.2: Earthwork (EL) 1, looking North

The first 'access' break is c.65m, the second c.175m, the third c.290m and the fourth c.375m from the Montpelier fence line. The first two E-W breaks are just to the east of guts and the fourth runs along the top of the ravine at the southern boundary of the survey area. All four run upslope eastwards from EL1 and were traced for at least 25m in all cases.

EL2, c.0.4-0.7m high, runs for some 125m from the southern end of the survey area, c.7-8m west of EL1. This earthwork, like EL1, is constructed in stone with some areas comprising a well constructed wall, c.1.8m wide, with one or both sides faced. EL3, although broken at several points, would appear to have extended only over the south of the survey area. However, 145 south of the Montpelier fence line a few lines of rubble in the cliff may attest to the presence of the feature further north.

This bank occurs on the cliff edge and much appears to have been lost through cliff erosion. Again, much of the extent shows a stone construction and, although more slight than EL1 or EL2, consists of a wall faced on the eastern side for much of the extent.

EL4 runs from beyond the Montpelier fence line apparently through to Gut 2, a distance of c.165m. This low bank, falling from west to east, appears to be a natural formation (as seen in Trench 2, Building A), probably utilized as a continuation from the northern limit of either EL2 or EL3, although the distance west from EL1 would suggest a continuation of EL2, rather than EL3.

Scattered along the length of the survey area, although clustering close to the earthworks at the southern end, are piles of deliberately deposited stone rubble. A pile also occurs close to Buildings B and C.

Interpretation of earthworks:

These earthworks would appear to represent the remains of the old road which ran along the coast of Nevis from Charlestown to Hurricane Cove. This road would have originally joined Cotton Ground to the northern boundary of Charlestown, until erosion caused the road to be re-routed, to 'dog-leg' east along one of the parallel inland roads. From old maps it would appear that this took place at some time in the late 19th/early 20th century as the road is shown on a map by John Alexander Burke Isles in 1871 (NHCS Archive). This road, like many others on Nevis (e.g. Indian Castle, Hichmans) appears to have had banks of stone on either side. These banks are probably the result of stone clearance from fields and would probably also serve as field and estate boundaries. Roads such as these on Nevis are often slightly sunken through wear. The survey area clearly shows evidence of such a system with transverse walls running inland from the main 'road' possibly providing access from the plantations along the side of land boundaries. However, this interpretation does not explain the well built nature of the walls alongside the road, or the third line of walling at the southern end of the survey area. It is unlikely that two roads would be built beside each other and a repositioning of the road so close to the old would appear unlikely. A possible explanation may be provided by the presence of an apparently 19th century house platform at the southern end of the survey area: EL3 may represent field terracing in this area, with the cleared stones being deposited in the rubble piles present in this area.

From historical maps, it is known that from the mid 17th century, a line of zig-zagging entrenchments were built behind the forts and in front of the coast road on the western coast. This feature has yet to be definitively located on Nevis. However, further south, behind the Golden Rock Pavilion, a slight ditch had been discovered during the walkover survey. This feature twists and turns along the coast, about 100m behind Mathew's Fort and would appear, from the non-linear nature of the feature, to be related to some form of entrenchment rather than a road. Another possible length has been recorded to the east of Beachcomber Restaurant running north from the Four Seasons Resort boundary, however, this section has a flatter base than that at Golden Rock Pavilion and may be the remnant of the coast road.

One of the aims of the Cotton Ground survey was to establish whether any evidence of the entrenchments survived on the survey area or whether the features present represented only the coast road. The precise nature of these entrenchments is uncertain and they are referred to as 'entrenchments', 'a line without a trench', 'a trench', 'a straight ditch' and as 'breastworks', which although slightly different, seem to describe the same feature, which was altered and repaired from the 17th century onwards. The military definitions for such a feature are quite precise and if assumed to be correct, the entrenchments should comprise a bank/parapet and a ditch, to face the direction of attack. In a situation such as the Nevis coast, where the entrenchments ran for several miles, the term 'lines of entrenchment' (Duane 1810) can be applied.

In entrenchments, the parapet should be 18-20ft wide and 4-6ft high. Although turf is usually recommended for this, some designers recommended that if constructed on the sea '...they must be fortified with a good parapet supported by a strong wall' (Ozanam 1711). The ditch should be wider than the largest tree on the island (Anonymous 1702, Lochee, Smith and Simes 1780) although other fortification designers believed a lesser ditch or trench of 8-10ft wide by 6-7ft deep could be used if necessary (Allingham 1702). This entrenchment was to be built 'on the side of the land' (Bisset 1751) behind the forts, and should comprise a series of returns to stop enfilading fire (Lochee, Smith and Simes 1780). 'Breastworks' (or *épaulements*) can be used to describe the parapet of an entrenchment and also any such work on a fortification (Duffy 1975).

On Nevis, however, it is not necessarily expected to find such a precise manifestation of such descriptions. Many of the contemporary writers who describe this feature would not necessarily have known the precise military terminology and would instead have described

the defences as what they thought them to be, rather than what they perhaps were. It is also unlikely that such well constructed defences would be built along the coast of Nevis, as the reluctance of Nevis Planters to spare their slaves for the work would suggest that works were carried out to the minimum requirement, rather than as large defensive trenches and banks. Therefore in Nevis, it is likely that smaller, less conforming, entrenchments may be prevalent. The earthworks below Cotton Ground may provide evidence of such a construction, combined in this instance with the coastal road.

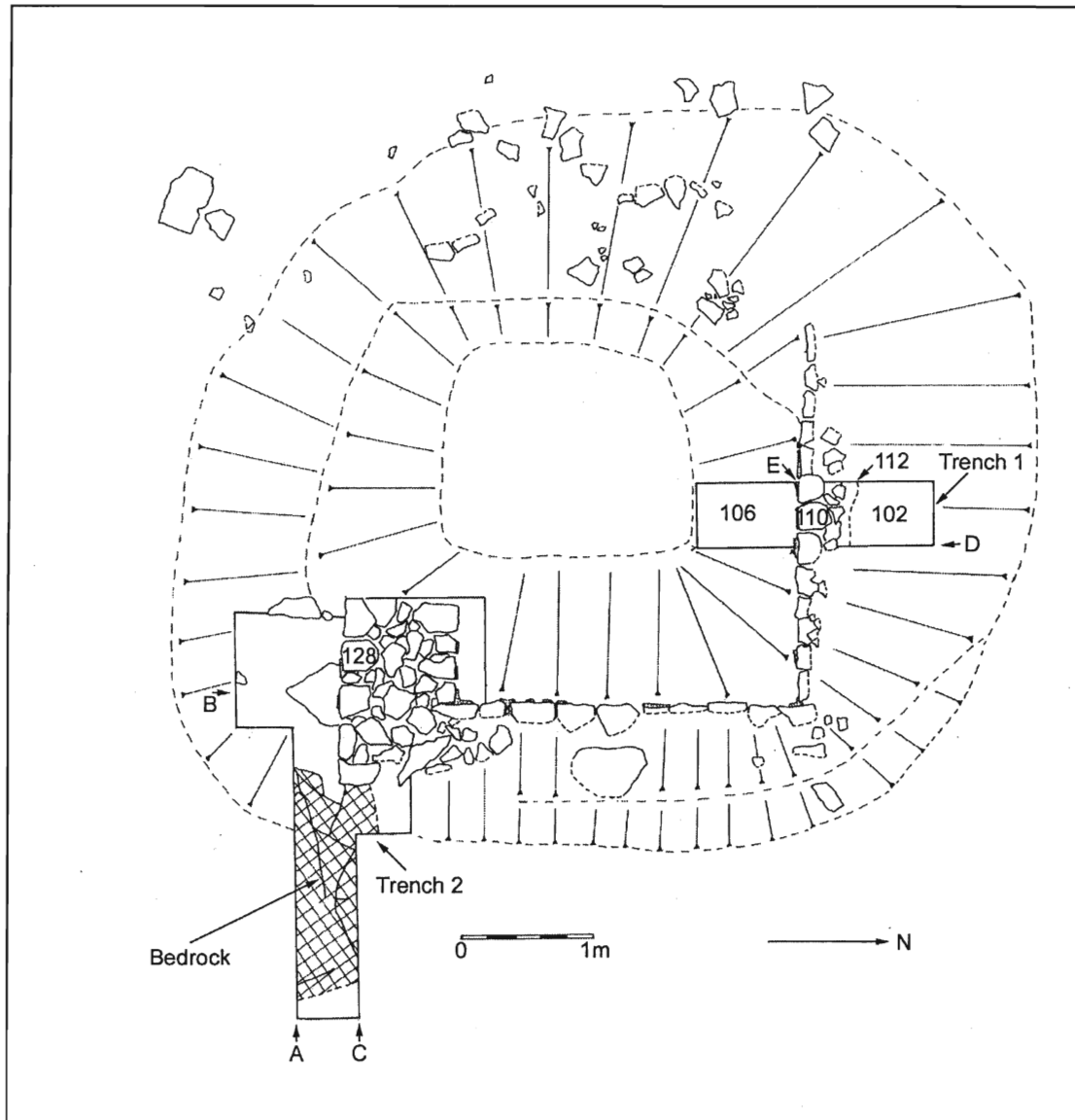


Fig. 2.12: Plan of Building A

Although it is almost certain that at least EL1 and EL2 represent the old coast road, it would appear likely that, in such close proximity with the assumed military buildings, this road would have performed some sort of military function, at the minimum as a communications and supply route between the forts in time of war. The presence of such well built walls along the length of this feature would also, although perhaps not of primary intent, have acted as a line of defence as any wall, no matter how small, is a potential hazard to an invading army.

A wall of at least 1m high, as in this case, would have provided a difficult obstacle either to attackers from the sea or from a land based attack towards the forts. This wall would have

also offered cover for any retreating army and would have provided an ideal position for musket fire or as a base for barbette cannon attack on any enemy-captured fort.

Although EL3 may well be later than EL1 and EL2, it is possible that EL3 is contemporary with the other earthworks. In this scenario, EL3 may represent part of the entrenchments located behind the forts and in front of the roads. The rubble piles might then be considered as piles of stones used to repair the stone walls/banks. However, without further archaeological work in the area and more generally across Nevis as a whole it is impossible to determine with any certainty the precise purpose and date of construction for these features.

ii) The buildings

From the walkover survey in May 1999 and February 2000, two/three sunken buildings had been identified. The first, Building A, (Fig. 2.12) is situated c.5m back from the coast, just 15m to the south of the Montpelier fence line. The other one/two buildings (Buildings B and C) are located at the centre of the examined area, c.200m to the south of Building A (Plate 2.4).

Building A:

Prior to excavation, Building A comprised three visible walls, with the presence of rubble attesting a possible fourth, western wall. The incomplete, northern wall runs for a distance of c.3m where it connects with the eastern wall which measures 2.6m on the inner face. The exterior measurement is c.4m. The southern wall is obscured by overburden and could only be traced for c.1m. Within the walls, the interior drops to a depth of c.1m and is infilled with large stone rubble and vegetation. A slight bank occurs around the structure. On the interior of the walls, evidence of lime plaster facing can be seen. Building A was trial trenched (Figs. 2.12 and Plate 2.2) to establish the nature of construction of the building and to retrieve dating evidence. Excavation on the site comprised two small trenches. Trench 1 was cut across the northern wall and Trench 2 cut across the south-east corner of the building.

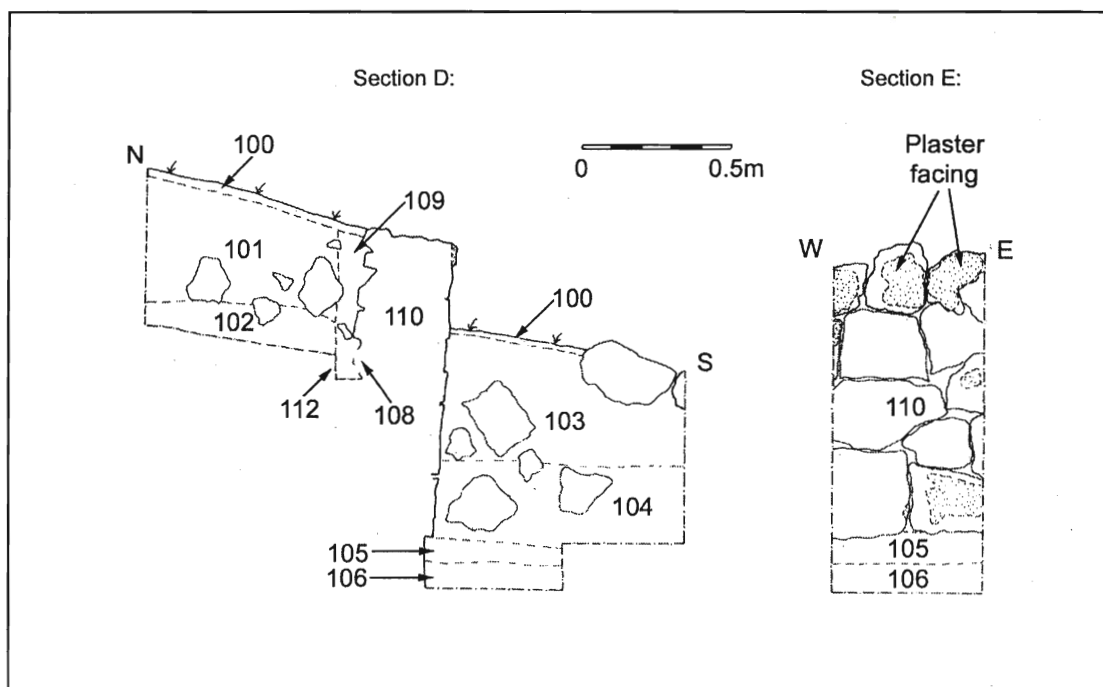


Fig. 2.13: Trench 1 sections, in Building A

Trench 1: This trench (1.8m x 0.5m) was dug to a depth of 1.15m on the south side of the northern wall and to a depth of 0.8m-1m on the northern side. The wall proved to be a drystone construction of coursed rubble. The wall proved to be only 0.3m thick with the

interior surface built with large (c.30-40cm) faced stone blocks whilst the exterior surface was made of smaller (c.10-20cm) rougher stones. The entire depth of wall appears to have been plastered on the interior face, to c.1m below current ground level, further suggesting intentional building as a below ground structure. The exterior face, however, appears to have been roughly constructed and remained unfaced. To the north of the wall, below topsoil, a thick layer (c.35cm) of compact rubble fill (Context 101) was located (Fig. 2.13, Section D). This fill is thought, by the excavators, to have been placed directly against the exterior of the wall. However, it is also possible that Context 101 represents the material excavated to provide the hole for the building which was then straightened and the northern wall built onto the face of this dump material. This material would have thus made the building even deeper below ground level and, if the structure is interpreted as a magazine, would have provided greater protection to the building. Either way would allow for a slighter wall than that necessary on the southern side of the building. The presence of Context 109 would suggest the wall tipped south, away from the dump material, the gap being infilled with this context. It is also possible that this context represents the infilling of the void between context 101 and the wall after the wall's construction. The tilt of this wall to the south might suggest the former interpretation, however, the tilt could be explained if the building had a low barrel vaulted roof (typical in magazine design) which could give a slight tilt to the wall construction and might also explain the large quantity of collapsed masonry within the interior of the building. Within the wall, a thick layer (c.35cm) of modern fill was located (Context 103) above a similar, but without modern finds, fill of rubble, lime plaster and soil (Context 104), representing the ongoing collapse and erosion of material into the structure over many years. Below these layers at the base of the wall, a thin layer of small stones and lime plaster (Context 105) was located, apparently representing a levelling fill, presumably below wooden planks. However, the presence of lime plaster and small stones and the greyish colour may suggest the fill represents a badly eroded mortar floor, like that visible in the sunken 'magazine' at Fort Codrington or within the Newcastle Redoubt. Below this layer, natural fragmentary rock was encountered. This evidence would suggest a floor level 1m below ground surface.

Trench 2: This trench, originally 1m wide, extending south from the southern wall of Building A, was extended 1.1m to the east. This trench was dug to a maximum depth of 0.8m at the western end, to the south of the wall (Fig. 2.14). The southern wall proved to be 0.9m thick and constructed, on both the interior and exterior, of large (30-40cm) faced stones with a rubble infilled core. The eastern wall proved to be of slighter construction and was only 0.5m thick. At the eastern end of the trench a large natural bank was uncovered which appears to form the raised area to the east of Building A. This bank appears to have been utilized in a similar way to context 101, with the eastern wall being built into this bank, thus allowing a thinner wall than that to the south. However, the western end of the trench showed a very different construction with the wall showing evidence of lime plastering both on the interior and exterior faces of the wall, suggesting that the southern wall had been constructed with the exterior surface exposed above ground. The presence of a compact, apparently trampled clay layer (Context 124) at the base of the trench may suggest a walkway on the south of the building, possible to an as yet undiscovered entrance in the southern wall. Evidence of a construction trench was also discovered with two apparently contemporary fills (Contexts 125 and 126). Context 126 would appear to represent a levelling deposit prior to the construction of the wall, with context 125 being deposited after the wall's construction as a packing fill.

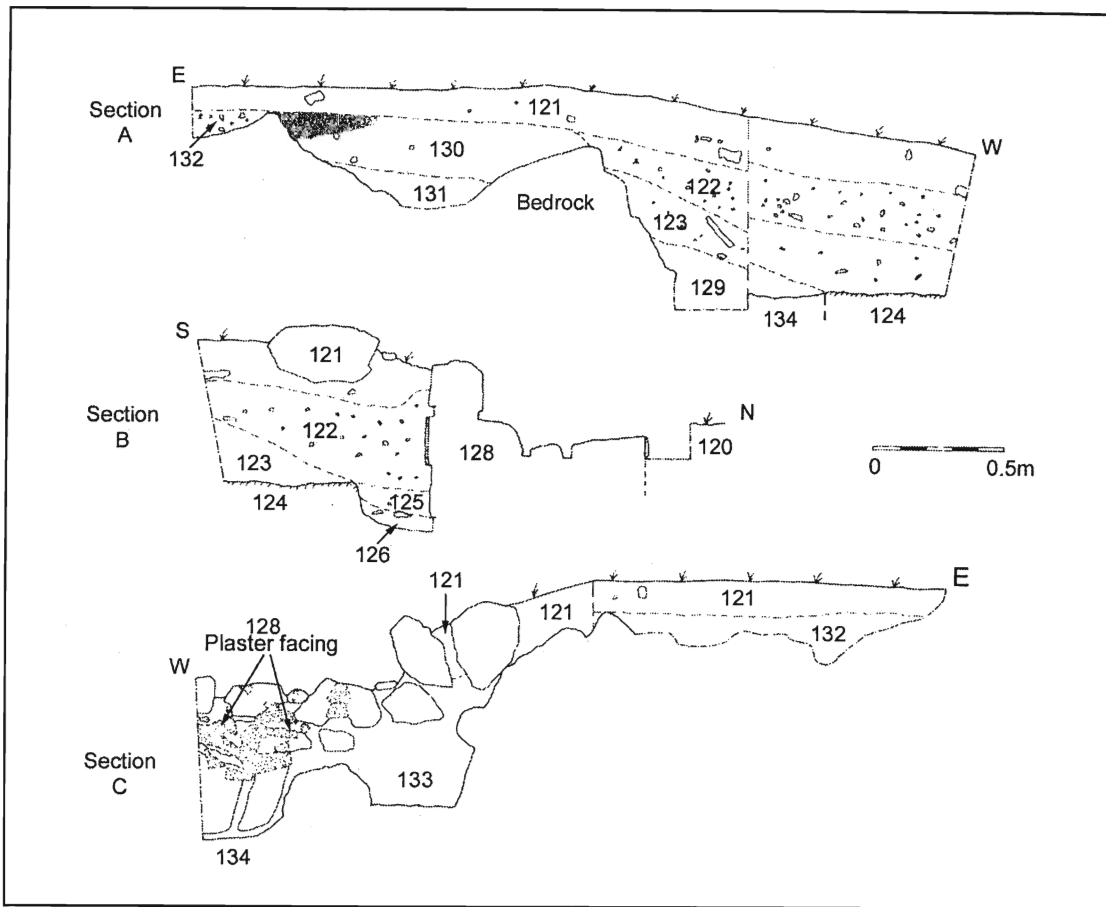


Fig. 2.14: Trench 2 sections in Building A

Other Structures:

In the cliff section, to the west of Building A, two walls and a cut feature can be seen (Fig. 2.15). The walls are 2.9m apart and exist to a depth of c0.45m below ground level. Between the walls, at between 30-40cm below ground, a layer composed of chunks of lime mortar/plaster can be seen. This layer apparently represents some kind of floor level.

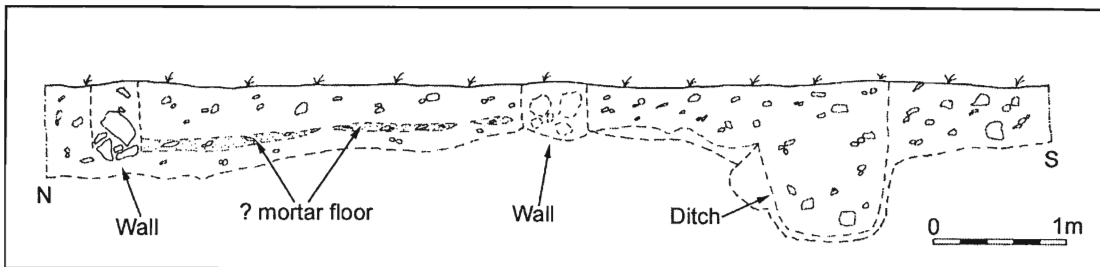


Fig. 2.15: Cliff section to the west of Building A

The walls do not correspond with those of Building A and it would appear that they represent a second building closer to the sea, just to the SW of Building A. This building is not visible on the surface, at the top of the cliff. The cut feature, 1.2m to the south of the southern wall is approximately 1m wide by 1.2m deep. On the cliff top, to the south of Building A, this cut feature appears to be represented as a shallow linear depression running E-W, to 7-8m inland. The cut feature would therefore appear to represent a ditch type feature.

Finds from Building A:

A small number of finds were recovered from Trenches 1 and 2 at Building A (see Table 1). The majority of finds were recovered from outside the building in Trench 2, with only one find, the iron fitting, coming from the interior. All can only be dated generally to the 17th or 18th century, but the absence of 19th century glass and stonewares, so prevalent in other parts

of the island, would suggest a date within the earlier period and a termination of use prior to the 19th century.

The yellow Dutch brick found in Context 133, below wall 128, would suggest a date somewhere in the 17th century for the wall construction.. The single find of European pottery from Context 123, suggests a date range of 1650-1810 (David Barker pers. comm.), although again a slightly later range is possible in the Caribbean.

Context	Colono- Ware	European Pottery	Brick	Clay Pipe	Glass	Iron	Bone
120						1 'L' shaped ?door fitting.	
121	4 sherds				1 small piece of bottle glass		
122	2 sherds			3 stems	1 small piece of bottle glass		
123		1 Rim from Staffordshire trailed slipware cup		2 stems		2 square headed, hand made nails	1 small unidentifiable piece
133			1 broken yellow ?Dutch brick	1 stem			

Table 2.1: Finds from Building A

The discovery of several Colonoware, Afro-Caribbean sherds would attest to a slave presence on the site. This pottery is generally assumed to have been locally made, by slaves, for their own purposes (Ferguson 1992). If this theory is accepted then the Colonoware at Building A must have been deposited by slaves either constructing or repairing the building. However, the high proportion of Colonoware and the almost entire absence of European pottery might suggest usage by those stationed at the building. In the 17th/early 18th century, these people would almost certainly have been white, either local militia men or imported soldiers, as slaves would not be allowed, due to the fear of revolt, near the cannon, etc..



Plate 2.3: Cannon fragment recovered from the vicinity of Building A, 1989

Although the amounts of pottery are very small and the find spot is located out side Building A, a non-slave use of Colonoware is still a possibility. If the structure is indeed late 17th/early 18th century, this would provide the earliest stratified example of Colonoware known on Nevis, suggesting a much earlier date for the pottery than has previously been thought.

In 1989, two members of the Nevis Historical and Conservation Society (hereafter NHCS) were

metal detecting in the vicinity of Building A. They discovered a large broken section of cannon from the mid section of a '17th or 18th century' (Hubbard 1989) 12lber cannon, weighing '178lbs' (ibid.), lying approximately 0.2m below the surface (Plate 2.3). Several other small fragments of iron thought to be from a shattered cannon ball were also found in the area. Hubbard interprets this as being caused by a fractured cannon ball lodging in the muzzle upon firing, causing the cannon to explode, probably during the French attack of

1706. However, an alternative theory would suggest a purposeful blocking of the muzzle by an invader (probably the French in either 1706 or 1782) and the cannon being blown up intentionally. Either way is impossible to prove. However, it would be likely that an accidental explosion would have killed those firing the gun and would have merited report in some form of communication. This cannot be found, despite many mentions of other such accidents. Whatever the precise cause, the presence of such a find suggests military activity close to Building A. This is further supported by the report of another (presently un-located) cannon being present at this site until being removed in the 1960's.

Buildings B and C:

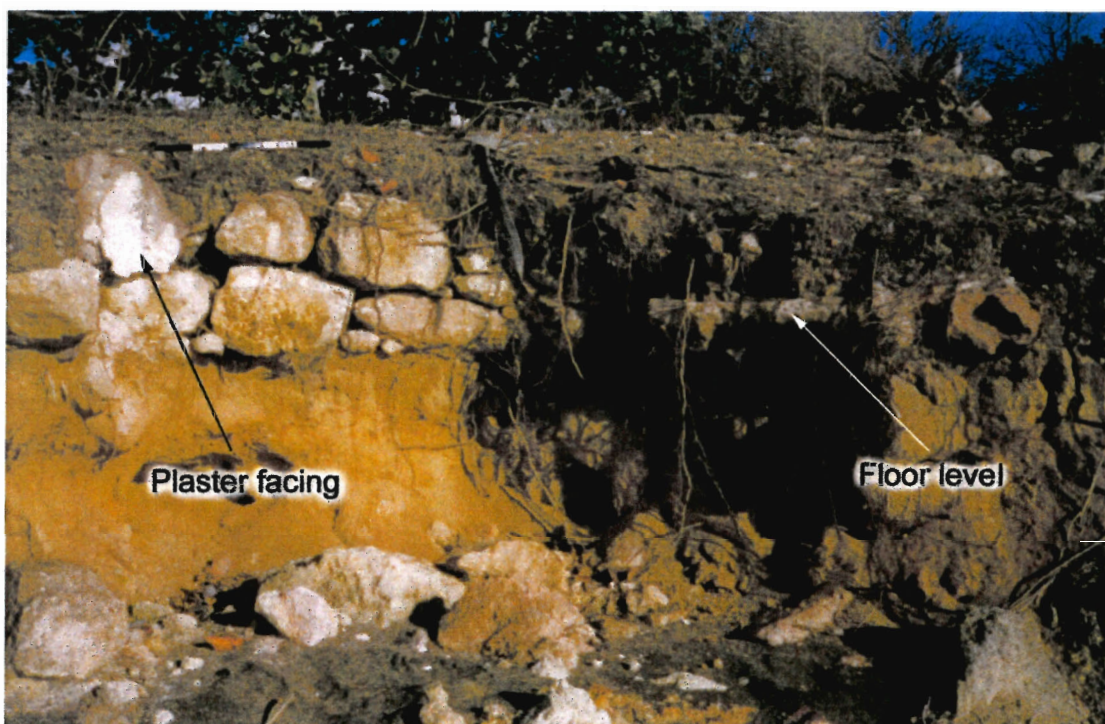


Plate 2.4: Building B

Buildings B and C, located 3.2m apart from each other, exist as partial remains, with only the eastern back walls surviving intact (Fig. 2.16). Both buildings exist c.1.5m above the high tide mark, only feet away from the sea. To the south and north of the buildings E-W depressions apparently demarcate the limits of activity, with EL1 marking the eastern boundary. The eastern ends of the southern and northern walls do survive although the entire western side of both buildings has been lost over the cliff. Both buildings have a floor level below ground. Building B exists in a more ruinous condition than Building C. The maximum depth of walls are 0.5m below ground level, with evidence of a 10-20cm thick lime mortar floor, c.0.2m below the surface at the southern end of the building. The eastern wall is constructed from large irregular coarsed blocks, faced with lime plaster on the interior, and extends to a length of c.4.5m on the exterior and c.2.9m on the interior (Figs.2.17 and Plate 2.4).

Although the northern wall is in section, the location of the southern wall could only be ascertained from examination of the cliff top. The northern wall appears to be c.0.6m thick whilst the southern is 0.9m thick although the paucity of remains makes accurate measurements difficult. The south eastern corner of the building, above the floor level is covered with a homogenous dark brown soil deposit, presumably hill wash from the eroding seaward sloping ground onshore from the building.

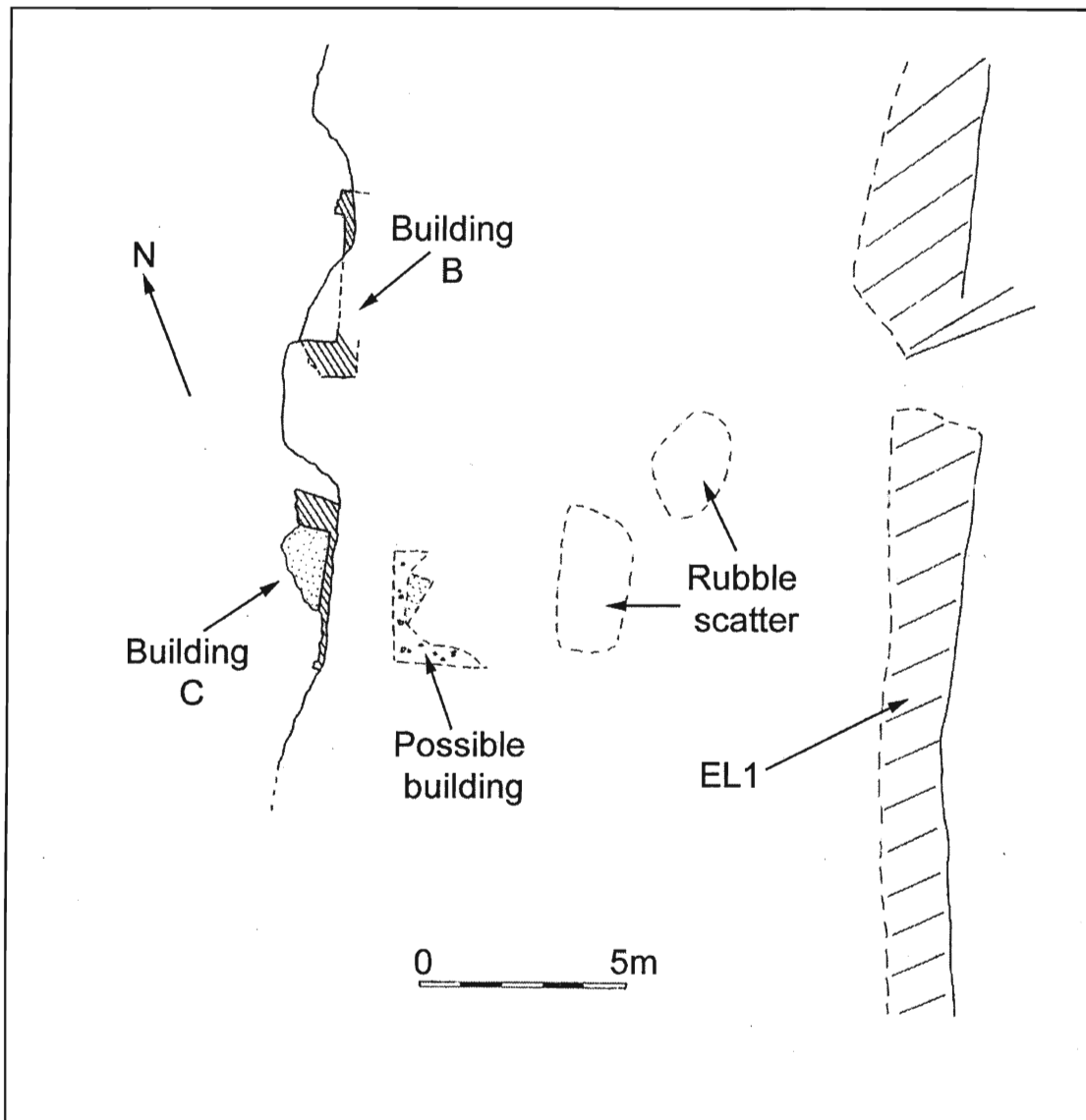


Fig. 2.16: Plan of Buildings B and C

Building C, much better preserved than Building B, has had the entire interior fill removed by the sea, probably during Hurricane Lenny in November 1999 (Fig.2.17 and Plate 2.5). This building, although appearing to be deeper below ground than Building B, is in fact on approximately the same level (only c.20cm difference) with Building C having suffered less erosion on its upper levels than Building B. This building, again constructed from large (although generally smaller than Building B) irregular coarsed blocks with a rubble infilled core, exists to a depth of c.1.4m below ground level.

The eastern wall which is entire, extends to a length of 3.9m on the exterior and 2.6m on the interior. The thickness of this wall could not be ascertained due to overburden on the eastern face. The northern wall extends for c.1m out from the cliff edge and is c.0.9m thick. The southern wall is apparently similar although a precise thickness measurement could not be made.

At a depth of 1-1.2m a thick (35cm) floor, of large irregular rubble and mortar, has been built within the walls. Unlike Old Road Building A, this floor had been built after the construction

of the walls although the thickness of the floor suggests a similar stabilizing purpose over the friable irregular pyroclastic base rock (now eroded easily by the sea). Both floor and walls show evidence of plastering on the interior surface with lime and, although more severe erosion at Building B may explain the difference, this plaster appears thicker and more 'solid' than that at Building B.

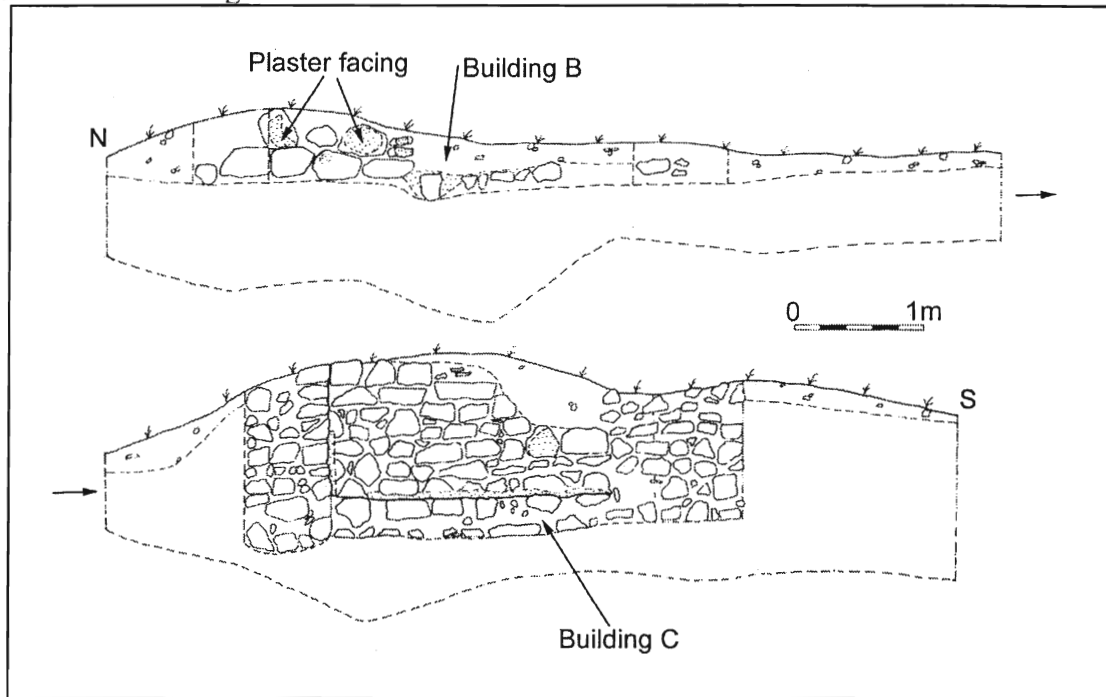


Fig. 2.17: Cliff section of Buildings B and C



Plate 2.5: Photo of Building C

The close proximity and similarity of Buildings B and C might suggest that, rather than being two structures, both represent the 'wings' of a single building whose interconnecting walls have been lost over the cliff. Both Buildings B and C are angled towards each other, the southern wall of Building B pointing WSW and the northern wall of Building C pointing WNW, almost suggesting that the space between the buildings represents a funnelling entrance way, c.3m wide.

Other structures:

To the rear of Building C a square patch (c.2.5m x 2.5m) of lime mortar and rubble spread would appear to attest the presence of a further building (Plate 2.4). The precise nature of this structure is impossible to discern without excavation but the dimensions would appear to suggest a similar structure to Buildings B and C. A pile of rubble and a further rubble scatter are also present in the vicinity of Buildings B and C, further suggesting activity over an area of c.100m², behind the two buildings. It is also possible that the rubble pile and scatter represent the remnants of robbing of the buildings, thus explaining the paucity of above ground remains.

Finds from Building C:

One small sherd of blue and white, sponged, European pottery was found on the shore in the vicinity of Building C. This sherd dates to the mid 19th century. This sherd is almost certainly insignificant and its location is probably the result of hill wash and/or coastal erosion.

iii) Interpretation of Buildings A, B and C

Buildings A, B and C are remarkably similar in dimension and construction. All have been constructed with drystone, infilled rubble walls covered on the interior with lime plaster. All have sunken floors, apparently originally 1m below ground, and none show any evidence of doors or windows to the landward side. They are also comparable to the onshore building at Four Seasons Resort in size. However, a purpose for these structures is difficult to ascertain.

Buildings B and C although not complete, would appear to be similar in ground floor area to Building A, a total of some 7m². This size of building would appear too small for domestic purposes such as a house or sugar warehouse and the location on an exposed cliff top means an alternative explanation must be sought. The size compares favourably with a small powder/ammunition magazine/guard house, an interpretation backed by the subterranean floor level, typical of such structures.

Building A, which possibly had a wooden/plaster floor level, and fragments of cannon around it, appears most likely to fulfil this function. Built c.100m back from the gun platform on the coast (due to the risk of explosion) with a wooden floor to stop metal hooped barrels sparking and igniting stray powder, this building may have been built as a subterranean barrel vaulted magazine or possibly as a guard house over a cellar, used to store powder, arms and ammunition.

However, at Buildings B and C this function cannot be proved with as much certainty although the nature of construction and size makes this interpretation likely. However, it also possible, due to the similarity of construction and floor level, that Buildings B and C represent one larger structure whose interconnecting walls have been lost. In this case the structure would most likely be a fort proper of a redoubt type design.

In either scenario, the two sets of buildings probably represent the replacement of Dukes Sconce with Abbots/Coles Point fort in the late 17th/early 18th century. Which building replaces which is difficult to ascertain without further archaeological research although from current information, it would appear that Buildings B and C are the earlier features and that Building A represents the later fort. The presence of cannon at Building A over 200 years after its abandonment and the local name for this promontory being 'Coles Point' also supports this interpretation.

Discussion

The site below Cotton Ground shows a range of well preserved earthworks and associated buildings now rare on Nevis due to coastal development. The cliff topography of this area has probably led to their preservation as this would be unsuitable land for hotels and is beyond the

immediate reach of hurricane high seas. However, erosion is causing this cliff to be rapidly eroded and it appears likely that, at the current rate of erosion, all the recorded earthworks, etc. will be lost to the sea within 10-20 years.

The site appears to represent the fusion of domestic and military landscapes, providing an apparently undisturbed example of the 17th-19th century coast road, now lost beneath the current coast road in most other areas of Nevis. The buildings present tie this coast road into a military landscape thus confirming the dual purpose of the coastal zone, serving both a military and domestic purpose. From the mid 17th century a road was constructed along the coast of Nevis. To the west of this road, a line of entrenchments ran, linking the forts along the coast. At the beginning of the 18th century the entrenchments were strengthened and spurs to hold soldiers were added between each fort. The closeness of the entrenchments, the road and the forts is indisputable. At the site below Cotton Ground, although the entrenchments have yet to be definitively identified, the probable relationship between roads and forts has been clearly identified. The forts were located on the shore close to the sea, with their magazines located 100m inland next to the coast road, to allow for easy supply to the forts. Somewhere in between, or possibly on the line of the road, lay the entrenchments. Beyond the road, inland, were plantations, who brought their sugar down to the road for transportation to the shipping places at Charlestown or Mortons Bay.

Summary of May 2000 Fieldwork

The three sites examined proved worthy of their initial selection. The site at the Four Seasons resort shows definitive evidence, in the form of the angle wall to prove that this fort is indeed Old Road fort. With Old Road fort locked into position, the remains at Paradise Beach can now be positively identified as Cotton Tree fort. The heavy damage to these forts testifies to the power of hurricane seas and has also suggested that these two forts were ruined, by the French, in 1706. The earthworks and buildings below Cotton Ground, although not solely of military purpose, have provided evidence for the further defence of the island of Nevis in the form of a defended coast road, providing communication between the forts. This work has also shown the rate of cliff loss at this area of the island, suggesting that any fort once present at Coles Point has long since fallen into the sea.

The importance of this work cannot be underestimated. The discovery of at least eight in situ cannon and two undisturbed forts is unprecedented on Nevis. The positive identification of Old Road and Cotton Tree forts has proved the fort location plan developed by the author to be correct and locational positions for other coastal forts on Nevis can now be made with confidence. This information may be used, by the relevant authorities, to identify areas of archaeological sensitivity, and to instigate appropriate measures, in advance of development work. Unfortunately, this work came too late to save Old Road fort (which was buried by sand in October 2000). Although now preserved beneath sand (which may protect the site from hurricanes) this fort is now lost to general view. Although possibly the best preservation solution for the fort, it seems sad that future generations will not be able to snorkel/dive the site themselves and enjoy the cannon and ruined fort (and the marine life which lived on the fort) in situ. This type of 'hands on' experience of heritage is rare and extremely valuable for encouraging interest. The loss of such an opportunity is to be regretted and unfortunately, on Nevis, the removal of one fort per year to development/natural destruction makes the continuing loss of such opportunities all the more likely. The forts provide a very understandable form of heritage monument linked to the tragic slave history of the island. The position of the forts on the coast, an area frequented by tourists, offers the potential for a successful integrated heritage trail with guidebooks/notice boards, thus offering a Nevis specific reason for eco-tourism orientated visitors to come to Nevis, and also offering educational information for local schools, etc. Without such measures, and increased

governmental monitoring and protection, the majority of these forts will be irretrievably lost within ten years; a sad loss on both a local and international scale.

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THEME THREE

THE COLONIAL LANDSCAPE-URBAN AND RURAL COMMUNITIES

Roger Leech and Bruce Williams

Introduction

Our first field season on Nevis has been a busy one, combining urban excavation with field and buildings survey and with documentary research. In this work we have owed much to the people of Nevis, and to our colleagues and friends, on Nevis, in North America and in Europe. We acknowledge this help with gratitude more fully at the end of this section of the interim report.

Excavations on the Global Dominion Site in Charlestown

The Global Dominion site offered one of the few possible remaining opportunities to examine the waterfront of Charlestown as it was from the seventeenth century onwards. Such work had the potential to shed much new light on urban life on Nevis and the Eastern Caribbean in the seventeenth and eighteenth centuries, complementing the work undertaken in Port Royal on Jamaica, on St Eustatius and by Michelle Terrell in the search for the seventeenth-century synagogue of Charlestown.

On the Global Dominion site next to Unella's Restaurant in Main Street, known to many as Murphy's Park, we were able to excavate the greater part of an entire tenement plot extending from Main Street to the former sea wall (Fig. 3.1). As the excavations progressed the sea wall emerged as an impressive feature, which Nicholas Grant St James of Global Dominion hopes to incorporate within the new building to be constructed on the site (Pl. 3.1). Forming a prominent part of this wall was a flight of steps leading from the shore into the plot; this we now know to have been part of a rolling way, for the movement of barrels into and out of the site. On the seaward side of the wall were deep sand deposits of the late nineteenth century, resting in part against a battered face such as one can still see today at Cade's Bay.

The full story of the archaeology of the site must await the analysis of the records and finds. From what we have seen so far it looks as though this part of Charlestown was devastated by the sea in the late seventeenth or early eighteenth century. The ferocity of this event was sufficient to wash away all the earlier surface deposits and closer to the shore all the underlying subsoil down to the level of the solid rock. From the seventeenth century we were thus left with the lower parts of the postholes of substantial timber buildings both against the street and on the seaward side, together with the partly eroded layers infilling a large rectangular pit (these features are shown on Fig. 3.1).

Close analysis of the dateable objects, especially clay pipe fragments, may provide clues to the more precise date at which this devastation occurred. One possibility is the earthquake of 1690. Documentary research undertaken in the British Library has led to the rediscovery of the original eye witness account of the earthquake:

THE GLOBAL DOMINION SITE, MAIN STREET, CHARLESTOWN, NEVIS - EXCAVATIONS 2000

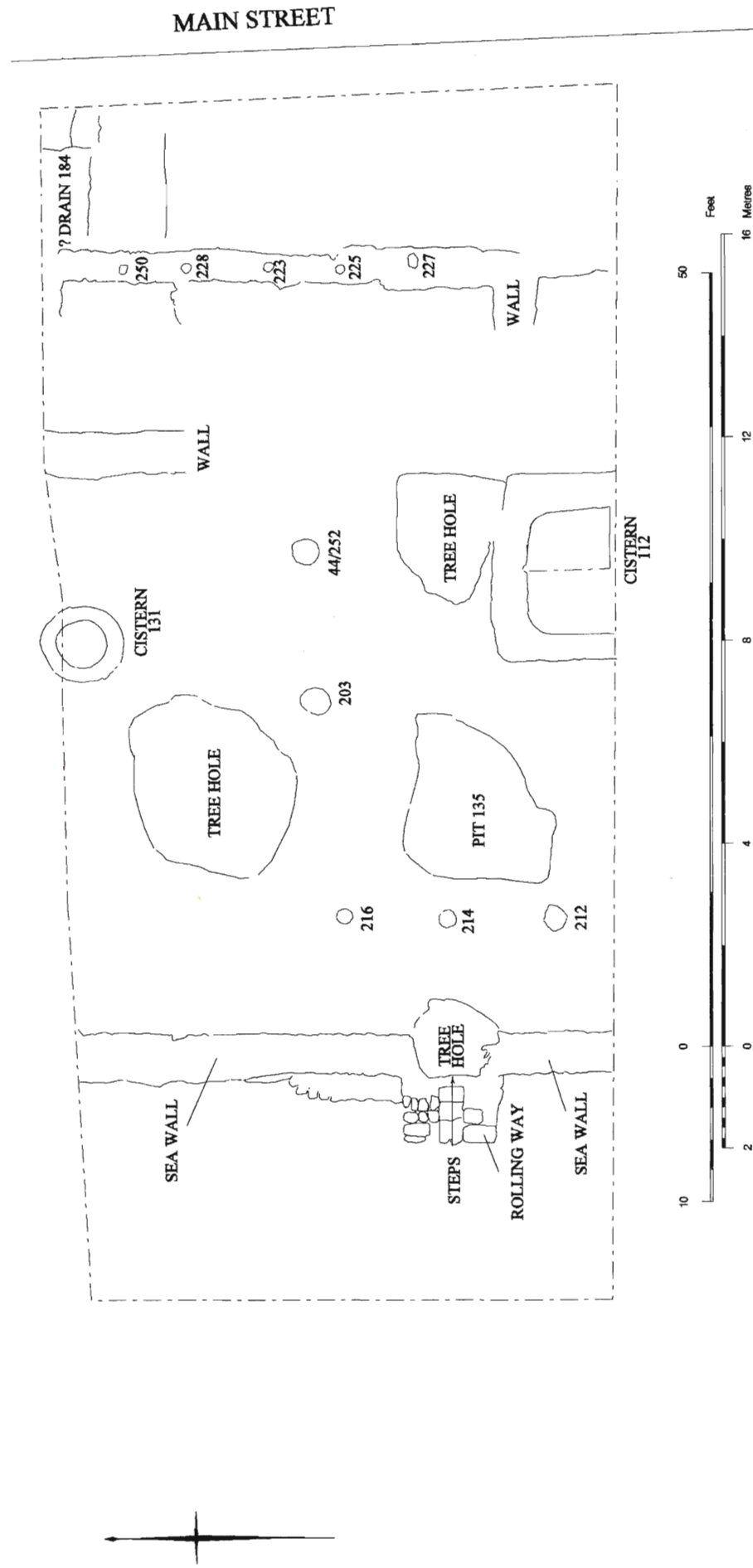


Fig 3.1 The Global Dominion site, Main Street, Charlestown, excavations 2000, interim summary and composite plan showing walls, postholes and other major features



Plate 3.1 Excavations on the Global Dominion site, July 2000 [5/31]



Plate 3.2 Global Dominion site, Delft plate, probably 1690s, from pit 135

The Sea it self for a time forsook the Shoar for about three quarters of a Mile together, and left a great Number of Fish of a large Size to lye gaping upon the Sand, till it return'd again: which violent Motion of the Water happen'd diverse times, though not with the same Rapidness and Fury, nor at so great a Distance as at first (British Library microfilm of the original broadsheet account in the John Carter Brown Library, Providence, Rhode Island).

The earthfast buildings, with the principal posts set into holes dug into the ground, can be compared directly with those recorded in seventeenth-century Virginia and elsewhere in this first season of fieldwork on Nevis, both at Mountravers and the Hermitage (see below). In providing a context for such buildings on seventeenth-century Nevis we will be looking at the data from St Kitts and Barbados, and will be looking also at questions of cultural identity and the diffusion of ideas on building techniques.

It appears that the stone structures visible during the excavation dated from the rebuilding after the event which caused such devastation. Up against Main Street the timber buildings were rebuilt in stone, the surviving posts of the earlier timber building becoming encapsulated in the new stone walls. On the seaward side a sea wall was built, the wall already mentioned. This may have replaced an earlier wall in this same position; alternatively the earlier shore line was possibly further out to sea.

From the deposits of the seventeenth century the objects found included a Delft plate dated to the 1690s, possibly made in Bristol, and copying a Chinese original (Pl. 3.2). This is in pieces, but will be restored for display. From the sand deposits of the early eighteenth century came many objects, notably several complete or near complete wine bottles (Pl. 3.3). From the later deposits one of the most interesting objects was a manilla - a bronze bracelet of a type made in Europe, probably England, and used as currency within Africa, both in the purchase of slaves and in transactions amongst Africans and others more generally (Pl. 3.4).

The Mountravers Project

In June and July we also commenced work at Mountravers, the large plantation ruin on the western slope of Nevis Peak. We were fortunate to secure the services of Nigel Fradgley, on leave from English Heritage, who completed a 3D survey of the large ruined house and some of the adjacent structures (Fig. 3.2). From this we hope to be able to construct much of the internal layout of the Pinneys' and Huggins's residences. It is also becoming apparent that much evidence will be forthcoming for the earlier seventeenth century house. As in Main Street in Charlestown, the earlier house appears to have been constructed around timber posts in the ground, at least one of which at Mountravers is still visible within the masonry of a later wall.

At Mountravers we were also able to complete the survey of the slave village site, recorded first by the Time Team from the UK Television Channel 4. Survey in April 2000 with the assistance of David Small and Christine Eickelmann was followed in July by a systematic and analytical surface pick up, undertaken by the students on two days during which heavy machinery was being used to move spoil heaps and modern deposits from the Main Street site. In this time we were also able to complete the initial survey of the slave village site, which can now be seen in relation to the main house at Mountravers (Fig. 3.3). The relationship of the possible overseer's house to village and cistern is of especial interest, placed so as at control access from the village to the main house, to the village water supply and to the principal bread oven. Work in 2001 will look further at this archaeology of surveillance and control, and will investigate also the extent to which the archaeology of the slave village site has been subject to erosion in the post-abandonment phase.



Plate 3.3 Global Dominion site, glass wine bottle, late seventeenth or early eighteenth century



Plate 3.4 Global Dominion site, Manilla, from drain 184

Field Survey

The slave village at Mountravers is reached at present with difficulty, along a narrow trail following the course of what was formerly a public road from the south (Fig. 3.3). The line of this road to the south of the slave village was identified from air photographs and then walked in the first instance by Edward Herbert who has given much assistance to the fieldwork. Along this road he discovered two impressive stone bridges which could in the course of time be visible from a new trail giving access to the slave village site from the south (Pl. 3.5). We will be investigating this possibility in advance of next year's work. To the east of Mountravers our study of air photographs has again with Edward's assistance enabled us to identify the site of Woodlands, another of the Pinneys' plantations which formed part of the extended Mountravers estate. We were also able to commence the survey of the probably seventeenth-century works at Stewart's and to locate other early works at Rossiter's and Ward's.

Recording the colonial landscape of Nevis is drawing on a variety of techniques, including field survey, the use of GPS (Global Positioning by Satellite), the use of the 1946 and later air photographs, and documentary research. The last is extending the catalogue of known estate plans of Nevis. On the west side of the island an extensive area from Charlestown north to Jessups is now known to be documented in large part on various maps of the eighteenth and early nineteenth centuries (Nevis Archives, Dorset Record Office, Southampton City Record Office). On the east side of the island, maps of the Symons, Coconut Walk and New River estates have all been identified (Suffolk Record Office). Together this data is enabling the initial English settlement of the island to be reconstructed and understood much more clearly, identifying the major land parcels from which individual estates were first apportioned, from the 1630s onwards.

Building Survey

The work at Mountravers has already been mentioned. Our building recording work has also taken us to the Hermitage plantation. This has been thought for some time to be the oldest wooden building in the Caribbean. We now believe it to be rather earlier than previously thought, certainly built in the seventeenth century and quite possibly as early as the 1670s or before. As at Mountravers and as in Main Street Charlestown, the earliest of the buildings at Hermitage are earthfast - the principal posts rest in postholes cut into the ground (Fig. 3.4). The addition of Hermitage to the archaeological and architectural record of structures of this type will be very important. Hermitage is one of the best preserved of no more than a very small number of such buildings surviving in North America and the Caribbean as a whole (Pl. 3.6; see Carson et al. 1981).

Education

It will be evident that our first season on Nevis encompassed a variety of archaeological recording approaches. This might seem ambitious, but a major part of the project was its educational dimension. The work served as a field school for the Southampton students, but also as an introduction to archaeology for three sixth form students from Bristol, all with a West Indian or African background. Bristol City Museum's archaeological unit is supporting this part of the project as a means of involving young people from a significant minority group within the city in archaeology - linking this to the ongoing programme to bring a multi-cultural perspective to the city's complex Atlantic past and involvement in the slave trade (Pl. 3.7). The excavations in Charlestown also provided a significant educational experience to local students. Jennifer Gray, one of the Southampton graduate students, took

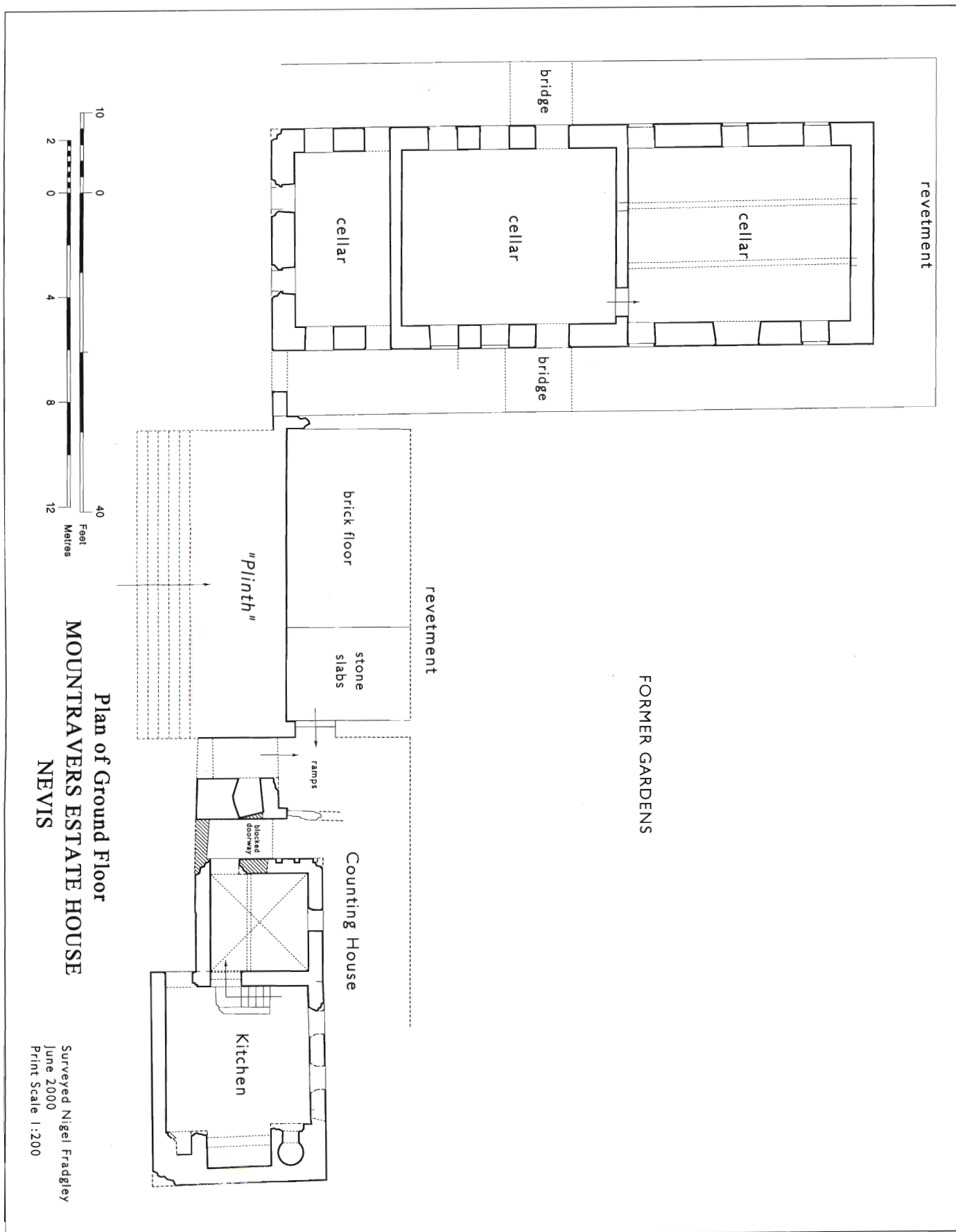


Fig. 3.2 Mountravers Estate House, Nevis, plan of the ground floor



Plate 3.5 Bridge south of Mountravers (with Adheem Malik and Edward Herbert) [5/18]



Plate 3.6 The Hermitage, double pegged post, chamfer and stops probably of the seventeenth-century [4/6]

on the role of educational officer for the project and together with NHCS staff organised an extremely successful open day for local schools and other visitors, all highlighted on the local radio, TV and in the press (Pl. 3.8). Extending the fieldwork into the school vacations should enable local students to participate more fully in the work in 2001.

Bristol City Museum's involvement in the project has been especially welcomed. In the seventeenth and eighteenth centuries there were many trading and other links between Nevis and Bristol. The Mountravers plantation was in the eighteenth century owned by the Pinney family, originally from Dorset but later also of Bristol. The Pinney's house in Great George Street, Bristol is now maintained and managed by Bristol City Museum as a historic house open to the public. There is obviously much potential for building on these connections and during this year's work we were able to make a start with a dynamic exhibition in the main hall of the City Museum. Photographs of the excavations and surveys were sent daily by email from Charlestown to Bristol - what you could see in Main Street one day on Nevis was part of the Bristol City Museum's display in England on the following day ! Next year we hope to add live video of the work in progress.

Plans for next year's work at Mountravers are already in preparation. Before then we will be completing the first draft of the full scientific report and a popular illustrated summary on the excavations on the Global Dominion site.

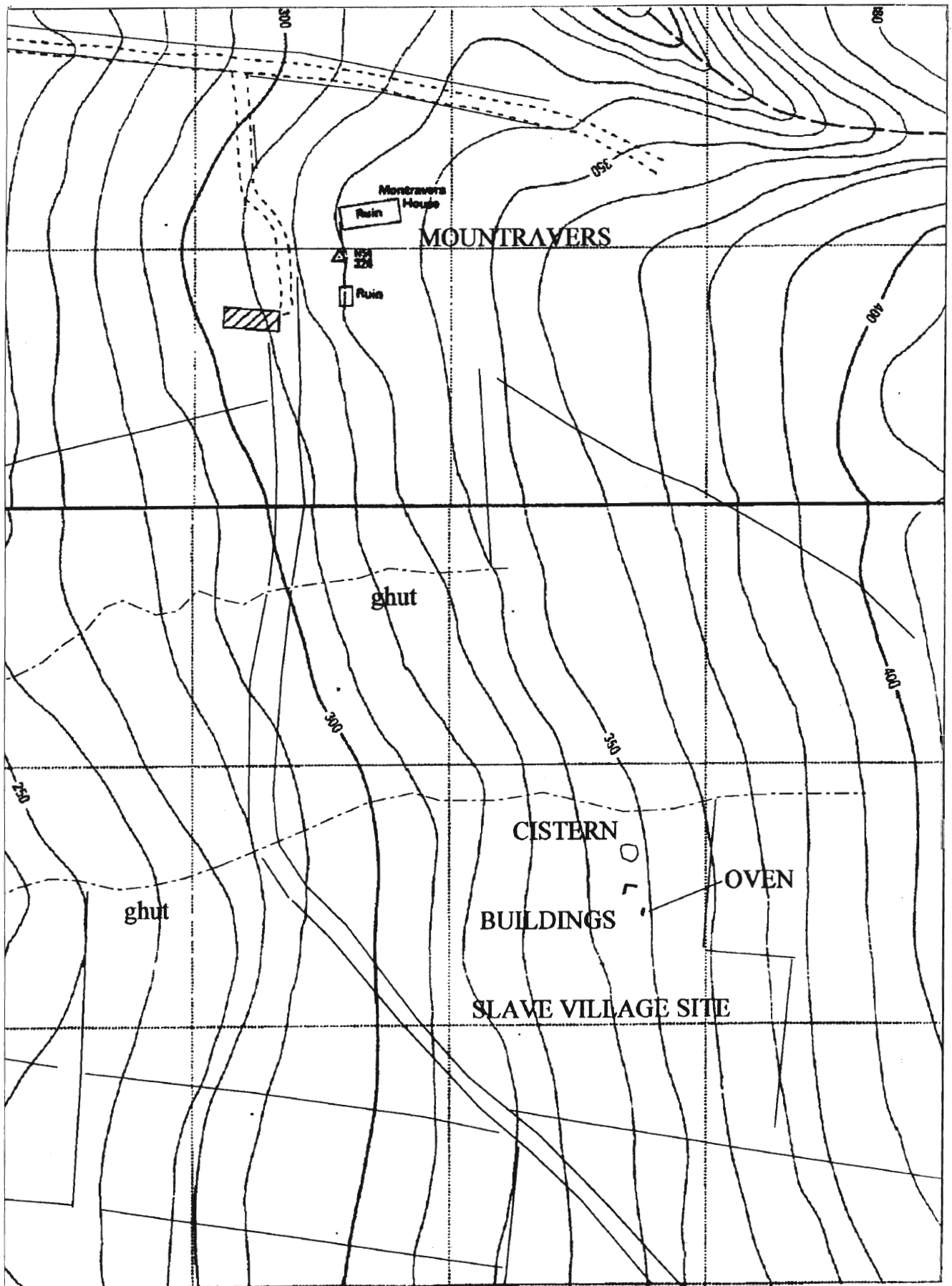


Fig. 3.3 The slave village at Mountravers, survey



Plate 3.7 Mountravers, teaching surveying skills [4/12]

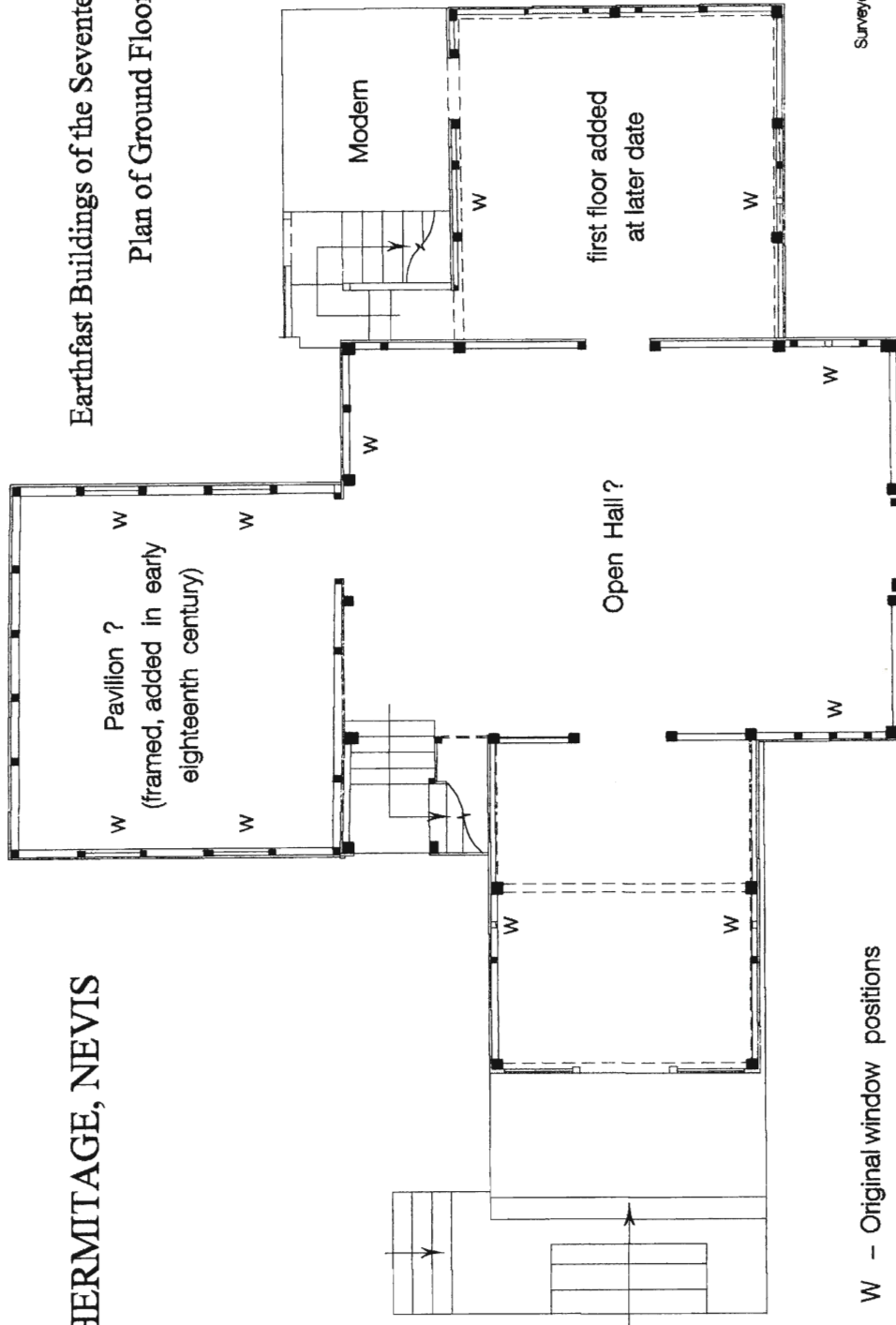


Plate 3.8 Global Dominion site, school visit [6/18]

THE HERMITAGE, NEVIS

Earthfast Buildings of the Seventeenth Century

Plan of Ground Floor



Surveyed Roger H. Leech
July 2000



Fig. 3.4 The Hermitage, Nevis, earthfast buildings of the seventeenth century, plan of ground floor

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More generally on Nevis we owe many thanks to the Director of Planning, Mrs Esternella West, and her staff, for easing us through the necessary consents and for their own appreciation of the project as it has proceeded. The ever increasing contacts between the project and the government and people of Nevis have been one of the rewards to us of working on the island. Here we must give our especial thanks also to the Premier, the Hon. Vance Amory, for his support and for introducing us to Edward Herbert, whose own enthusiasms have contributed much to our work in the field and who has greatly extended our own understanding of the historic landscape of the island. In the same vein we must thank Malcolm Guishard and Tyrone O'Flaherty, Minister and Permanent Secretary for Tourism, for their support and for introducing us to the exciting work on the traditional Nevisian village at Fothergill's.

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THEME FOUR

CHANNEL 4 'TIME TEAM' ARTEFACTS

Elaine L. Morris

One of the responsibilities of the Nevis Heritage Project is the preparation of scientific reports on the large quantities of different artefacts recovered by the British television's Channel 4 *Time Team* group of archaeologists who spent 10 days in October-November 1998 excavating three locations on Nevis: Mountravers at the Pinney Estate, an area suspected to be the drowned port of 'Jamestown', and the later prehistoric site at Coconut Walk Estate. All of the artefacts or finds were transported to the University of Southampton in early 1999. The collections from these three sites are curated in 14 large supermarket, cardboard boxes. A basic catalogue of fragments of the major material types, such as pottery, glass, ceramic building material, clay pipe, animal bone, metalwork, and stone found in each archaeological layer or context was prepared in the summer of 1999 in order to begin the programme of assessment necessary to conduct the analysis.

The first material type to be investigated has been the historic period and prehistoric period pottery. Pottery is the primary artefact used to date the different layers excavated at these sites. For Mountravers and Jamestown, David Barker, Keeper of Archaeology at The Potteries Museum, Stoke-on-Trent (UK), was hired to instruct four staff and three students (undergraduate and postgraduate) in the identification of historic period pottery and the significance of the range of wares found in the two assemblages. This was conducted over three days in June 2000, and proved to be a valuable training experience for all involved (Fig. 4.1). A total of 2500 pottery sherds of British origin was recorded, imported pottery was identified and some unusual surprises were discovered. A group of coarse, unglazed pottery, which is believed to be sugar-refining vessels, was identified in the Mountravers assemblage. Further research is currently underway to clarify this initial identification. David is now preparing his report for publication.

In addition, amongst the pottery of the colonial period one of the major discoveries, not highlighted in the televised programme, was the recovery of colonoware pottery, 465 sherds from Mountravers and 50 from Jamestown. Colonoware pottery is the label given to Afro-Caribbean pottery made by slaves, apparently for their own use. The pottery has a coarsely-textured fabric, made from local clays and inclusions or grit, which is used to create cooking pots, jugs, bowls and coal pots or braziers. Many of these forms are still being produced today at the Newcastle Pottery. The cookpots are heavily encrusted with soot and burnt residues, while the jugs are covered with red slip and burnished. This pottery is a clear indicator of the strength of identity amongst enslaved Africans during the 17th- 19th century and provides an outstanding example of the continuity of traditions on Nevis. Several colonoware vessels were published as part of the finds reported in the Newcastle Redoubt publication (Morris, *et al.* 1999). The Nevis colonoware pottery is being researched by Elaine Morris.

The prehistoric pottery from Coconut Walk has been sampled for analysis as a case study assemblage within a postgraduate research thesis by Julie Cathie. Her results confirm the identification of this assemblage of pottery recovered from the gridded surface collection and testpit excavations to be Ostionoid, or later prehistoric, in date and to have been made on the island.

The next stages of this theme will be the analysis and reporting on the very large assemblages of historic period glass from Mountravers (3500 fragments) and Jamestown (700 fragments) which will take place during the academic spring vacation in 2001. The British glass expert, Roger Dodsworth, Keeper of Glass and Fine Art at The Broadfield House Glass Museum (UK), has been engaged as consultant on the Project, and he will come to the University of Southampton to train staff and students in the recognition and dating of wine glass, bottle glass and fine glass objects from these two sites. These are very exciting collections which have much to say about the transportation and consumption of wine in the colonies, and will be a important material to compare to the equally large assemblage from the Golden Dominion site in Charlestown (theme 3 above). A Master's degree student in maritime archaeology is currently considering this as a possible dissertation topic exploring trans-Atlantic colonial trade, consumer behaviour and European material cultural in the New World.

The metal objects include a wide range of plantation estate ironwork as well as copper alloy or bronze pieces. These will be x-rayed for identification purposes in the creation of a catalogue of basic information about household and fanning tools as well as building fixtures and fittings. Dylan Cox, conservator for English Heritage and research fellow at the University of Southampton, is advising us on the procedures required. David Higgins has received the surprisingly small quantity of clay pipe fragments and is now preparing his report. The animal bone fragments will be examined as part of the bone analysis to be conducted for the Golden Dominion site assemblage and will provide the opportunity to compare a plantation assemblage with an urban one of the same date in order to investigate colonial period food consumption on Nevis and contrast this with the assemblage recovered and reported from the slave quarters at Brimstone Hill (Klippel 2000), for example. There is the possibility that a Master's degree student in osteoarchaeology may choose this topic for their dissertation.

The goal of this theme is to complete the analysis and scientific reporting of all the finds by 2002, and the preparation of popular booklets and teaching packs for schools (see Theme 5 next) about the whole range of historical and prehistoric material culture recovered from these important excavations by the *Time Team*.



Plate 4.1: Analysis of Time Team finds by David Barker, assisted by Sue Nelson (undergraduate, University of Southampton)

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THEME FIVE PLAIN LANGUAGE RESOURCES AND ACCESSIBILITY TO NEVIS HERITAGE

Elaine L. Morris

One of the most important aspects of the Nevis Heritage Project is the inclusion of Nevisians in our investigations into the history and prehistory of **the island and all** of its people. We realised at the start of this project that two of the main limitations to exploring and understanding the past are access to information about the past and having the skills to investigate the past. We believe that one of the best ways to include citizens in our work is to translate professional reports about historical and archaeological discoveries into documents suitable for use by everyone, not just other archaeologists. Therefore we plan to make sure that information already published, and which we are now creating, is readily accessible to all age groups. We plan to make sure that these resources are used to provide information for teachers, children and adults so that they can explore the heritage of Nevis themselves.

This accessibility needs to be combined with on-site training, and both Themes 1 and 3 are focusing on providing places for interested students from the island to be taught the technical skills and methods of investigation used by archaeologists and architectural historians (Plate 5.1). In addition, open days for students, teachers, and the general public are part of our fieldwork programmes.

However, we have discovered that this process of translation of information into suitable plain language materials is very challenging and we have yet to find anyone interested in helping with this theme! Therefore, this is a plea for anyone reading the interim report to come forward to work on this extremely important and potentially hugely rewarding aspect of the Nevis Heritage Project. There are plenty of reports just waiting for someone with a lively mind and a keen interest to transform them and in so doing help everyone to have access to the heritage of Nevis.



Plate 5.1 Children from Gingerland participating in the gridded square surface collection at Hickman's prehistoric site (Theme 1).

Publication Responsibilities

The Nevis Heritage Project recognises that it has a major responsibility to the Federation of St. Kitts-Nevis to publish information resulting from work on the three main topics of fortifications, urban and plantation communities in the historic period and prehistoric settlement and artefacts in a variety of formats suitable for use by the public and for professionals.

The Project has already begun to fulfil the latter by publishing the building survey and excavation of the Redoubt fortification in the international journal, *Post-Medieval Archaeology* (Morris, *et al* .1999) and announced the launch of the project in the international journal *Antiquity* (Morris 2000). Copies of these reports are available for consultation and can be purchased at the Nevis Historical and Conservation Society museums. Preparations for creating a popular booklet about the Redoubt are underway, and it is expected that this will be followed by the publication of a children's storybook about life in Newcastle during the early 18th century, focused at the Redoubt. The artefacts excavated by the television series *Time Team* at Mountravers, Jamestown and Coconut Walk are currently being analysed at the University of Southampton with the aim of publication and subsequent return to Nevis for display, teaching and storage.

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